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## **Flip, Feedback and Fly: Using LOOP to Enhance the Professional Experience of Initial Teacher Education**

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*Abstract: The Australian Professional Teaching Standards require pre-service teachers to complete a minimum number of days of professional experience in order to graduate. Problems can arise, however, when the evaluation of their professional experience against the Standards shifts from the providers of teacher education programmes to school-based supervising teachers. The Lesson Observation On-line Platform (LOOP) begins to address these problems by utilising a secure, shared digital platform to facilitate evidence-based evaluation of the performance of pre-service teachers. In this research, we evaluated the potential of LOOP to assess pre-service teachers against the Standards as well as to enhance the professional development of both pre-service teachers and their supervising teachers. The responses from two pre-service teachers and their supervising teachers demonstrate that the methodological matters can be easily overcome. Nevertheless our findings indicate that there are several practical issues that need to be overcome if LOOP were to be fully successful.*

**Keywords :** The Lesson Observation On-line Platform; LOOP; video recordings; reflective practice; supervising teachers; pre-service teachers

### **Introduction**

Almost all teacher education programmes around the world view professional experience as fundamentally important to initial teacher education. In Australia, newly graduated teachers must complete a nationally accredited program of initial teacher education (AITSL, 2011) in order to meet the Graduate Teacher Standards (Standards). Graduates applying for registration as teachers in Victoria, for example, are required to complete either a four-year undergraduate programme of study and at least 80 days of supervised teaching practice, or a two-year graduate programme and at least 60 days of supervised teaching practice (Victorian Institute of Teaching, 2015). These requirements are in-line with Australian Standards.

Our research attempts to address issues around the increasing shift for the evaluation of the placement from the provider of initial teacher education programs to schools. With this shift, the role of supervising teachers includes both the *support* and *evaluation* of pre-service teachers. The specific aim of the research described herein is to investigate the potential for video-recording technology and online platforms to assist in the evaluation of pre-service teachers against the professional placement component of the Standards for graduate teachers.

More broadly, we are interested in seeing whether or not the supervising teachers and university faculty are in agreement when evaluating the performance of pre-service teachers against the Standards. This aspect of our study reflects our concern with there may be a disconnect between the providers of initial teacher education and the evaluation of pre-service teachers. Accordingly, a future report will describe the intra-rater and inter-rater reliabilities of evaluations of pre-service teachers against the Standards using video-recordings.

The Lesson Observation On-line Platform (LOOP) is a secure, shared digital platform to facilitate evidence-based evaluation of the performance of pre-service teachers with the additional benefit of enhancing the performances of both pre-service teachers and their supervising teachers (Cooper, 2015). Given the success of LOOP in the U.K., our initial focus is to investigate the practicality of implementing LOOP in the Australian context. We are also interested in whether or not the recordings could be used to enhance the professional experience for both pre-service teachers and their supervising teacher.

Our initial aim was only partially successful, however, and our experiences impact both the way that LOOP can be implemented as well as highlighting some of the practical challenges facing professional placement in Australia more broadly. Accordingly, our study describes both the intent of the research as well as the difficulties we faced during its implementation. We conclude that LOOP has the potential to provide support for both pre-service teachers and their school-based supervising teachers.

## **Professional Placement**

In Australia, the majority of the providers of initial teacher education courses are universities where, for example, Monash University graduates approximately 900 teachers annually. In ensuring that Australian graduate teachers meet the Standards, the providers must ensure that graduates have completed at least 60 days of professional placement, consisting of a “well-structured, supervised and assessed learning practice in schools” (AITSL, 2011, p. 14).

In the past, it was usual to appoint a member of the university faculty to act as the placement supervisor. However, it is becoming difficult to appoint faculty supervisors to visit all pre-service teachers during their placement mainly because of the scale of the exercise. For example, the Partnerships and Professional Placements Office of the Faculty of Education at the Monash University makes over 6,000 placements annually to ensure compliance with the Standards. At Monash university faculty are not directly involved in the placement of its students, except in situations where pre-service teachers are at-risk of not meeting the standards.

Although the provider takes ultimate responsibility, the school-based supervising teacher is taking an increasing role in the evaluation of pre-service teachers against the Standards, thereby creating tensions in their role as both “professional friend” and “judge” of the pre-service teacher (Hennissen et al, 2011; Le Cornu, 2012; Renshaw, 2012; Sim, et al, 2012). In particular, effective mentors are concerned with helping pre-service teachers establish a professional identity, shifting their focus from the technical aspects of teaching to student learning, and enhancing their reflective practice (Renshaw). Pre-service teachers benefit from being provided with feedback and practical advice, particularly on developing their teaching skills (Hennissen et al 2011).

According to Renshaw (2012):

The terminology used across teacher education programs in Australia reflects differing perceptions of the role of the teacher [mentor] during the practicum.

Margaret Lloyd (2012) provides a useful description of current uses of the terms

‘supervise’, ‘mentor’, ‘support’ and ‘assess’. Lloyd’s preference for ‘mentor’ and her reservations about ‘supervise’ and ‘assess’ signal the tensions inherent in reconciling the supervisory, assessing and mentoring aspects of the relationship between the pre-service teacher and the teacher at the school site (p. 7).

At Monash University, school-based supervising teachers are fully responsible for the assessment and evaluation of the pre-service teachers training in their schools, with university faculty having little or no role in the evaluation of pre-service teachers. Their involvement, if any, is typically limited to visiting the pre-service teacher when students are “at-risk” of not completing the requirements. Such visits include meeting with the supervising teacher to plan for additional support for the pre-service teacher. Anecdotal reports from university faculty indicate that sometimes the issues lie not with the pre-service teacher, but with the quality of the supervision.

The concerns expressed in Australia are shared elsewhere. In research aiming to enhance the professional conversations between university faculty and supervising teachers, Ussher and Carss (2014) point out that for pre-service student teachers “developing effective working relationships with schools and associate teachers during their practical experiences is a critical element in [their] perceptions of success” (p. 1). For Ussher and Carss, having the same university faculty visit the pre-service teacher during professional placement is beneficial for both the supervising teacher and the pre-service teacher, providing opportunities for deep reflection and further professional development. Ussher and Carss (2014) emphasised the centrality of the supervising teacher and the university faculty in evaluating pre-service teachers during their professional placement, noting that:

mentors play a critical role in practicum experiences and for most student teachers their school-based mentor changes for each practicum as they experience a variety of school settings ... Associate teachers take on their role in good faith, providing pastoral care, expert practical guidance and feedback on teaching (p. 3).

Although there are some important differences across the U.K., Australia and New Zealand, particularly in terms of the roles and responsibilities of university faculty, there are also similarities and, perhaps most pertinently, similar concerns. Ussher and Carss (2014, p.6) for example, noted that their:

Student teachers also commented on the two different roles of support and evaluation undertaken by these lecturers and how this may be a challenge for student and lecturer. It required an adjustment to discussion because these lecturers were both liaison and support ‘mentors’ at the start of the practicum and then later they were ‘judge and critic’.

Recently, the Teacher Education Ministerial Advisory Group (TEMAG, 2014) raised some specific areas for discussion. One area relevant to this study is “How can teacher education providers and schools best work together to select and train mentor teachers to effectively support pre-service teachers on professional experience?” (p. 9). The Group expressed concerns that:

... some partnerships are currently inadequate in addressing the increasing demand for placements, and in facilitating a useful and reciprocal feedback loop. There is also concern about the selection and preparation of mentor teachers who support and assess pre-service teachers undertaking their professional experience. (p. 9).

In terms of the evaluation of pre-service teachers against the Standards:

... the rigour of the assessment of pre-service teachers ... across different higher education institutions has been criticised with some arguing for greater consistency in assessment of classroom readiness. (p. 9).

The tensions created when implementing the contradictory roles (Renshaw, 2012) requires that the providers of initial teacher education ensure that evaluations are accurate and objective indicators of the competencies of the pre-service teacher. Even when the same instrument is used to measure competency, the variability in the conditions under which the instrument is administered makes it difficult to compare competencies across different contexts. In other words, would competencies be evaluated similarly across different mentors?

At a more fundamental level, the instrument used to evaluate pre-service teachers against the Standards is rarely, if ever, subjected to the same analyses that are required of instruments that are used for “high-stakes” testing. For example, confirmatory factor analysis could be used to ensure the match between the items used in the instrument and criteria described in the Standards. However, different providers of teacher education use different instruments to evaluate their students against the Standards, compounding the difficulty in ensuring that Standards are assessed in a consistent manner.

To summarise, Renshaw (2012) and the TEMAG (2014) report, as well as others, have highlighted the challenges facing initial teacher education when the responsibility for the evaluation of the pre-service teachers changes from the provider to the supervising teacher. The issue is exacerbated when the supervising teachers are not clear in their role as both mentor and assessor. Clearly, processes should be developed and tested so that the professional conversations and evidence-based practices between pre-service teachers, mentor-teachers and university lecturers can be enhanced.

Furthermore, mechanisms need to be in place to ensure that the evaluation of pre-service teachers against the Standards is done reliably, using an instrument that has well-established construct validity. Questions of reliability and validity are rarely discussed in terms of lesson evaluations but can be expected to become increasingly important, particularly when issues surrounding teaching standards are addressed at the national level.

An investigation of some aspects of the tensions between pre-service teachers, their supervising teachers and university faculty in addressing the Standards (Renshaw, 2012) forms the basis of the LOOP project described herein. The next section outlines how technology has been used to date to enhance the dialogue between all three parties.

## **Multimedia Technology and Professional Placement**

Multimedia technology allows for supervisors to evaluate pre-service teachers’ performance through video-conferencing (Dyke, Harding & Liddon, 2008). Such off-site evaluations were possible because the strategic use of the camera enhanced the visual and sound perspectives of the classroom. Video recordings of classroom interactions have also been used to improve pedagogy (Sherin, 2004), allowing both school mentors and university supervisors to provide valid feedback that translates into student learning outcomes.

Winn and Lewis (2010) discussed the potential of video over internet protocols and the institutional barriers when using this type of supervision. Phillipson, Phillipson and Poon-McBrayer (2012) overcame methodological issues to show that the teaching performance of pre-service teachers in Hong Kong could be evaluated successfully against the university’s criteria through the use of video-recordings. Phillipson et al did not, however, investigate whether or not the recordings could be used to enhance the experience for the pre-service teacher or their supervising teacher

In the U.K., Cooper (2013; 2015) described the Lesson Observation On-Line Platform (LOOP). In LOOP, pre-service teachers are required to upload three video-recordings of the teaching and associated artefacts such as lesson plans as a way of evaluating competencies of

pre-service teachers. In further developing LOOP, the video-recordings provide an opportunity to investigate whether voice-overs to the recording could be used by mentors to enhance their evaluation of pre-service teachers and to shift their focus the techniques of teaching to meeting the needs of learners. For pre-service teachers, these voice-overs would provide added detail on their teaching performance because the approach would link feedback to actual events in the lesson.

## Loop in Australia

In this article, we report our experiences when implementing LOOP in the Australian context. We begin by outlining the methodological approach and issues that needed to be addressed. Next, we describe the intended plan to evaluate the effectiveness of LOOP to enhance the experience of both the pre-service teacher and their supervising teacher during professional placement.

## Operational Approach and Issues

In implementing LOOP, we addressed a number of methodological issues, where pre-service teachers can record their teaching in a lesson and upload the recording, together with lesson artefacts, onto a secure online platform. We also required supervising teachers to be able to download the video recording and associated artefacts onto their own computer, record a verbal commentary of the video and upload the modified recording back onto the platform for later viewing by the pre-service teacher. We also wanted to make use of readily available technology such as laptop computers, video-recording devices and audio-feedback software. Finally, the system had to be simple to implement ensuring that the demands on both the pre-service teacher and the supervising teacher were minimal.

After trialing a number of alternatives, the final process and associated technology were provided as a set of detailed instructions to both the pre-service teacher and their supervising teacher. A Flip Camera, wide-angled lens and tripod were loaned to the pre-service teacher. The pre-service and supervising teachers provided all other equipment such as lap-top computers. The video recordings were compressed prior to uploading onto Google Drive to ensure that the time to upload and download the files was not prohibitive. Last, the technology was available to both users of Windows-based and Mac users.

For the pre-service teacher, the four-step protocol and associated instructions were:

1. Video record lesson.  
*Using the provided Flip Camera, wide-angled lens and tripod, record one lesson of no more than one hour. [Note that this camera is relatively cheap, provides good quality video and audio quality, and the recording function is operated by a push button.]*
2. Collate lesson artefacts.  
*Collect your lesson artefacts, including lesson plans, visual aids, de-identified student outcomes, worksheets and/or workbooks that were completed during the lesson. Student work should include outcomes from a diverse range of students.*
3. Compress video file.  
*The video file should be downloaded onto your computer and converted to MP4 format using Any Video Recorder. [Any Video Recorder is a free to download video compression software and once down loaded does not require internet access to run.]*

4. Upload video file and lesson artefacts onto the LOOP Google drive.  
*A designated folder within Google Drive has been set up with password protection. Using the password supplied to you and your supervising teacher, upload the compressed video recording, together with associated artefacts, into this folder within Google Drive.*

For the supervising teacher, the process and associated technology were outlined in the following three-step protocol and associated instructions:

1. Access video recording via the LOOP Google Drive.  
*Your supervisee will inform you that a video recording, associated artefacts of one lesson and e-copy of the placement report form are available on Google Drive in a designated folder. Use the provided password to access the files within this folder.*
2. Record audio commentary.  
*While viewing the recording and accessing the lesson artefacts, create an audio commentary of the lesson, including any feedback you would like to provide (i.e. strengths, weaknesses and suggested improvements) using Audacity. At the same time, evaluate the student performance against the Standards using the placement report form as usual. [Note that Audacity is free to download audio track software recorder.]*
3. Upload audio file and completed placement report.  
*Upload the completed audio file and completed placement report form into the designated folder.*

Given that the aim of this study is to demonstrate the viability of using the LOOP to support the development of pre-service teachers. Accordingly, our objective was to conduct our research using at least 20 pre-service teachers and their supervising teacher during the five weeks of their placement.

## Methods

Our participants were Master of Teaching (Secondary) students enrolled at Monash University and the instrument used in the evaluation of pre-service teachers was that described in their Placement Guide: Master of Teaching (Secondary) (2014). Our initial aim was to obtain responses from at least 20 cases (pre-service teacher and their supervising teacher) in order to facilitate the quantitative aspects of the study. As described earlier, we will report on estimations of the intra- and inter-rater reliabilities of the evaluation of the pre-service teachers against the graduate teaching standards in a future publication.

## Participants

All participants, including pre-service and supervising teachers participated as fully informed and consenting volunteers. As required, the pre-service and supervising teachers needed to obtain fully-informed consent from their school principals in order to continue with their participation in the project. Ethics approval for this research was gained from the Monash University Human Research Ethics Committee.

Fulltime students (N = 166) enrolled in the first year of the 2-year Master of Teaching (Secondary) award at Monash University were invited to an information session where the broad aims of the research were described. Of the 166 pre-service teachers in this cohort, 12 students expressed interest in the research and these students were then asked to obtain approval from their supervising teacher and school principal in order to continue their participation. The final number of participants in this study included four pre-service teachers

and their supervising teachers. These participants completed the Professional Experience Assessment Report (PEAR) as requested. However, only two supervising teachers and their pre-service teachers completed both the verbal commentaries and written feedback.

The supervising teachers were asked to evaluate the performance of the pre-service teacher against the Standards using the PEAR described in the Placement Guide: Master of Teaching (Secondary) (2014). PEAR comprises 32 items arranged in seven groups of Standards (Table 1) and after each Standard is a space for comments.

Graduate Teacher Standard	Number of items	Sample item
1. Know students and how they learn	5	Understands how students' backgrounds and cultural identities influence their learning
2. Know the content and how to teach it	5	Develops meaningful student learning sequences that motivate students and engage them in active learning.
3. Plan for and implement effective teaching and learning	6	Is responsive to difference in students' abilities, cultural identities and backgrounds in planning and implementing plans.
4. Create and maintain supportive and safe learning environments	4	Promotes a challenging, creative and ethical learning environment.
5. Assess, provide feedback and report on student learning	4	Understands the relationship between assessment, reporting and teaching and learning
6. Engage in professional learning	5	Critically reflects on own practice to improve teaching and learning.
7. Engage professionally with colleagues, parents/carers, and the community	3	Understands the importance of communicating effectively, sensitively and confidentially with parents/carers

Pre-service teachers are evaluated against each item using a 4-point ordinal scale, including *excellent*, *very good*, *satisfactory*, *developing* and *not demonstrated*. [Monash University, Placement Guide: Master of Teaching (Secondary) (2014).]

**Table 1: Arrangement of items in the MTeach (Secondary) Placement Manual**

In using PEAR, supervising teachers were asked to rate the performance of the pre-service teacher against each item using an ordinal scale, including *excellent*, *very good*, *satisfactory*, *developing* and *not demonstrated*, in accordance with normal supervision practice. Supervising teachers were asked to complete the written report “by the last day of placement”, including “written comments on individual lessons” (p. 20). Note, however, that there was no specific instruction to complete the evaluation of the pre-service teacher during the observation of one lesson.

## Processes

In adopting the LOOP as our guiding framework (Cooper, 2015), we used the protocols outlined earlier in this paper. In accordance with these protocols, pre-service teachers were asked to record several lessons during their placement by placing the Flip Camera in a fixed position in the classroom to show both what the teacher is doing and the broad reactions and activities of the students. The pre-service teachers were asked to identify their best lesson and to upload this recording onto platform.

Their supervising teachers were asked to rate the performance of the pre-service teacher against the Standards during this lesson using the Placement Checklist in accordance with their usual practice. This evaluation of the pre-service teacher (Time 1) will be compared with their evaluation five months later (Time 2) using only the recording and



lesson artefacts, forming the basis of estimations of intra-rater and inter-rater agreement. This aspect of the study will be the subject of a future publication.

The recording was then uploaded onto the online platform, together with the lesson artefacts. As soon as possible after the recording was uploaded, the supervising teacher was asked to provide verbal feedback of the pre-service teachers performance synchronised with the events in the lesson. This feedback was recorded, uploaded and made available to the pre-service teacher.

Both the pre-service and supervising teachers were then asked to provide their feedback to the process in terms of the potential for professional development. In particular, pre-service teachers were asked two questions: Question 1 asked *For each of the seven Graduate Teaching Standards, do you feel the audio commentary has enhanced the development of your own teaching skills? If so, how?* Question 2 asked *Do you have any feedback or suggestion for improvements for the audio commentary you received?*

Supervising teachers were asked two questions: Question 1 asked *How do you feel the process (of watching the video recording and creating the audio commentary) has affected your own ability for reflective practice?* Question 2 asked *During professional placement you would provide verbal and/or written feedback to the pre-service teacher (PST) on their teaching performance. Do you feel the addition of the audio commentary feedback has enhanced the quality of your feedback to the PST? If so, how?*

## Analysis

The verbal commentaries by the supervising teachers were initially transcribed before the broad themes were identified using conventional content analysis and then categorised against one or more of the seven Standards. According to Krippendorff (1980, p. 21) “content analysis is a research technique for making replicable and valid inferences from data to their context”. Our conception of content analysis is as ‘codified common sense’; “a refinement of ways that might be used by lay persons to describe and explain aspects of the world about them” (Robson, 1994, p. 239). We categorised themes according to the analysis of the mentors’ verbal commentaries that used eight categories: the seven Australian Graduate Teachers’ Standards plus an eighth category to account for verbal content not directly related to the Standards. These eight categories were generated by specifying what indicators, in this case the seven Standards plus the eighth ‘catch-all’ category, a researcher should look for when making each categorisation from the two verbal commentaries (Robson, 1994, p. 242).

The transcripts of the verbal commentaries of the two mentor teachers were also analysed according to frequency analyses of the numbers of words they used in relation to each of the Standards. In Table 2, those amounts are reported as percentages of each mentor’s complete verbal commentary transcript. Out of the categorisation of the mentors’ verbal commentaries against the Standards came the broad themes of (1.) quantity of feedback, (2.) quality of feedback and (3.) explicitly visible evidenced-based observations of specific points about teaching performance, directly related to the elapsed time of the video recording.

The broad themes from the commentaries could then be compared against the written comments from the PEAR for each student. The broad themes from responses of both the pre-service teacher and supervising teacher to their two questions were also identified and reported using the same approach.

Standard	Proportion of verbal comments Teachers A and B (%)		Examples of verbal comments made on the recording	Examples of written comments made on Placement Checklist <sup>2</sup>
	A	B		
1. Know students and how they learn	9	5	<ul style="list-style-type: none"> <li>Never assume what students know (Teacher A).</li> <li>Great that you know students X and Y (Teacher B).</li> </ul>	<ul style="list-style-type: none"> <li>Has a good understanding of how a student’s background can affect the way they approach tasks in class and how they may interpret instructions given (Teacher A).</li> <li>Great with differentiation (Teacher B).</li> <li>Able to restructure course to meet needs of students. Celebrates success. Needs to be a little bit more assertive (Teacher B).</li> </ul>
2. Know the content and how to teach it	7	20	<ul style="list-style-type: none"> <li>Could explain concepts better (Teacher A).</li> <li>Good definition of terminology (Teacher B).</li> </ul>	<ul style="list-style-type: none"> <li>At times didn’t take into account student’s prior knowledge (Teacher A).</li> <li>Remember to explain terminology that may be new, rather than just using it and assuming that students know what you are referring to (Teacher A).</li> <li>Pre-service teacher did improve at this as he went along (Teacher A).</li> <li>Responsive and engaging course design and delivery (Teacher B).</li> </ul>
3. Plan for and implement effective teaching and learning	12	28	<ul style="list-style-type: none"> <li>Class started well but didn’t end well (Teacher A).</li> <li>Good introduction to topic (Teacher B).</li> </ul>	<ul style="list-style-type: none"> <li>Early on in the placement I asked the Pre-service teacher to work from a unit planner rather than an individual lesson plan, because there are so many variables in a practical environment that things always seem to take longer than you expect. Thus he needed to be more flexible/fluid in his delivery time frames (Teacher A).</li> <li>Could work on confidence in voice and facial expression, gesture and posture (Teacher B).</li> </ul>
4. Create and maintain supportive and safe learning environments	53	40	<ul style="list-style-type: none"> <li>Behaviour expectations are not clear (Teacher A).</li> <li>Need to take firmer hand (Teacher A).</li> <li>The little conversations with students mean a lot (Teacher B).</li> <li>Students more engaged, interested, stopped talking (Teacher B).</li> <li>Circulation around room is great (Teacher B).</li> </ul>	<ul style="list-style-type: none"> <li>By the end of placement he had down pat how many instructions at a time to give, early on he gave too many and students got confused (Teacher A).</li> <li>He was also using the whiteboard better to give students a visual reminder of what was to be done during a practical lesson – listing steps/tasks. Thus students were better able to be self-directed and manage their own learning (Teacher A).</li> <li>Assessment matrix earlier, concise, clear instructions (Teacher B)</li> </ul>

5. Assess, provide feedback and report on student learning	5	5	<ul style="list-style-type: none"> <li>The mark will contribute to their final grade (Teacher A).</li> <li>Links made with future plans with assessment/teacher (Teacher A).</li> </ul>	<ul style="list-style-type: none"> <li>He was given full control over the assessment of the units of work that he taught. To do this he used a combination of rubrics, verbal (one on one) and whole class feedback (Teacher A).</li> <li>Prior to starting the unit he accessed my prior assessment records to gain an idea of how the students were performing in the class and any issues that he needed to be aware of (Teacher A).</li> <li>Building understanding of significance of assessment to learning (Teacher B).</li> </ul>
6. Engage in professional learning	4	0	<ul style="list-style-type: none"> <li>Did not use school dropbox (Teacher A).</li> </ul>	<ul style="list-style-type: none"> <li>After each lesson that he taught or I did we would discuss how the lesson went and things that could have been done differently or why they were done the way they were. He was able to take on board this feedback and actively used it to improve his teaching style (Teacher A).</li> <li>Works well in team teaching scenarios, engaged in learning art of teaching well (Teacher B).</li> </ul>
7. Engage professionally with colleagues, parents/carers, and the community	1	0	<ul style="list-style-type: none"> <li>Did not learn from previous supervisors (Teacher A).</li> </ul>	<ul style="list-style-type: none"> <li>Small school/personal, close, immediate. She is sensitive to human interaction (Teacher B). [Note that Teacher A did not respond against this Standard.]</li> </ul>
8. Other	9	2	<ul style="list-style-type: none"> <li>Did not have time to fully brief before lesson (Teacher A).</li> <li>[Teacher apologises for disrupting lesson] (Teacher B).</li> </ul>	<ul style="list-style-type: none"> <li>He needs to start out “meaner” in class. Set the expectations high for behaviour with respect to homework and classwork, and follow through with consequences should students not meet these. It is too difficult to be tougher if you’ve started out too nice, students don’t take that seriously (Teacher A).</li> </ul>
Total	100	100		

<sup>1</sup>Questions are paraphrased from the original.

<sup>2</sup>The complete written feedback from Teachers A and B are reported here.

**Table 2: Video recordings of pre-service teachers: Analysis of supervising teachers’ (n = 2) commentaries<sup>1</sup>**

## Results

As previously described, 12 students expressed interest in the research and of these, the final number of participants included four pre-service teachers and their supervising teachers. Although these participants completed the PEAR as requested, only two supervising teachers and their pre-service teachers completed both the verbal commentaries and written feedback.

### Verbal Commentaries

The individual comments were categorised against the Standards. The results from the analysis of the verbal commentaries are shown in Table 2. The analysis shows that the supervising teachers made comments in all seven categories, although the frequency of comments in each Category differed considerably. The majority of comments were restricted to Categories 2, 3, and 4 with only cursory comments in Categories 5 and 6. Only one teacher made comments that referred to Standard 7 (Engage professionally with colleagues, parents/carers, and the community). On the other hand, both teachers used the recordings as an opportunity to make comments about their prior involvement with the pre-service teacher. For example, Teacher A mentioned their lack of prior opportunity to “fully brief” and during the observation and Teacher B apologises for disrupting the lesson.

When comparing the comments written by the supervising teacher from the PEAR against the verbal comments, the first notable difference is the quantity of the feedback. The verbal commentaries were more nuanced compared to the written feedback and usually is response to actual events in the lesson. Thus, it is possible to relate directly the verbal comment with the specific occurrence in the lesson. For example, Teacher B was able to reinforce the behaviour of PST2 when “circulating” around the classroom and conversing with students.

In terms of written feedback on the process, the responses from the two pre-service teachers and two supervising teachers are shown in Tables 3 and 4 respectively. In responding to the verbal commentaries, both pre-service teachers were generally positive about the experience of seeing their lesson and listening to the comments by their supervising teachers. Moreover, both pre-service teachers felt that the commentaries reinforced the written comments made by their supervising teachers as well as the placement experience more generally. Only PST2 expressed a negative aspect of the experience, writing that he/she was not a “fan” of watching “one-self on video”.

<sup>1</sup> **Question 1. For each Standard, has the commentary enhanced the development of your own teaching skills? If so, how?**

Standard	PST1	PST2
1. Know students and how they learn	More understanding of student needs ... opportunity for feedback from Supervising teacher ... better to have recording earlier.	[Supervising teacher] talked about individual students ... tapping into their interests.
2. Know the content and how to teach it	No additional insight into content knowledge	[I] covered too much too quickly/need to go over material
3. Plan for and implement effective teaching and learning	Commentary highlighted [no prior] opportunity to plan/importance of plan	[Supervising teacher] provided feedback on how to engage and empower students in the lesson.
4. Create and maintain supportive and safe learning environments	Emphasises the need not to be “too nice” to students/highlights need for safe and supportive learning environment/enhances sense of self-efficacy in this area.	[Supervising teacher] provided additional background to the students I was teaching ... beyond what is possible during placement.
5. Assess, provide	Strengthens understanding of need to provide	Commentary highlighted need to

feedback and report on student learning	feedback to students.	provide feedback and engage in conversation.
6. Engage in professional learning	This aspect was not highlighted by commentary/does highlight need to consult with Supervising teacher/commentary did provide prompt for further discussions	Difficult to cover in one [recorded] lesson.
7. Engage professionally with colleagues, parents/carers, and the community	[Nil response]	Difficult to cover in one [recorded] lesson.
<sup>1</sup> <b>Question 2. Do you have any feedback or suggestions for improving the commentary?</b>		
	[Commentary] earlier in placement/confused by “don’t smile comment”/provided impetus to discuss issues with leading teachers/observing oneself teaching is useful/commentary reinforces previous discussions with mentor.	Supervising teacher gave sufficient guidance throughout the placement/commentary did not add anything new/Not a “fan” of watching oneself on video.
<sup>1</sup> <b>Questions are paraphrased from the original.</b>		

**Table 3: Summary of responses by pre-service teachers (PST) (n=2) to question: Can LOOP enhance the development of teaching skills?**

The responses by the supervising teacher to their questions are reported in Table 4. Teacher A was more positive about the experience compared with Teacher B. In terms of enhancing self-reflection, only Teacher A was positive with Teacher B highly critical about both the process and the opportunities for self-reflection. Furthermore, both supervising teachers were sceptical about the potential of LOOP to enhance the quality of their feedback.

In particular, Teacher B believed that the process might add an additional layer of anxiety to the experience by exaggerating “bad” feedback and diminishing the impact of the “good” feedback. However, neither pre-service teacher specifically mentioned this aspect of the experience, other than PST2 not enjoying watching themselves on video.

<sup>1</sup> <b>Question 1. Has watching the recording and providing the commentary affected your ability for reflective practice?</b>	
<b>Teacher A- Supervisor of PST 1</b>	<b>Teacher B- Supervisor of PST 2</b>
Video allowed me to look at both the PST and my own teaching/good for self evaluation	“Sorry for being negative”/Process added another unnecessary layer/process of recording commentary could not be done immediately/technology was not helpful/couldn’t feel class/camera perspective was limiting/not sure how process was relevant to my reflective practice/provides additional perspectives of [PST]/[students] not natural.
<sup>1</sup> <b>Question 2. Has the commentary feedback has enhanced the quality of your feedback to the PST? If so, how?</b>	
I usually provide detailed notes on the lesson and then discuss them with the PST/The video takes a lot of time to watch, think, prepare feedback and [then] record feedback/not something I want to do all of the time/timely feedback would be a struggle.	Process has not enhanced quality of feedback/May add to anxiety of [PST]/exaggerates “bad” feedback/diminishes impact of “good” feedback/unable to get “a read” on the [PST] and where they can go.
<sup>1</sup> <b>Questions are paraphrased from the original.</b>	

**Table 4 Summary of response by supervising teachers (n=2) to question: Can LOOP enhance reflective practice?**

## Discussion

The broad objective of our research is to enhance the rigour and objectivity of the evaluation of pre-service teachers against the professional standards through the use of shared digital platforms. Based on the success of LOOP in the U.K. (Cooper, 2015), it is important, however, to determine whether or not LOOP can be implemented in the Australian context. Given the tensions that exist when the primary responsibility for the evaluation of pre-service teachers shifts from university faculty to their supervising teachers, our research also investigated LOOP's potential to enhance reflective practice.

Given that the final number of participants in this study included only two pre-service teachers and their supervising teachers, it is almost impossible to draw any generalisations from this study. Nevertheless, there are indications that the LOOP holds the potential to enhance the placement experiences of both groups. At a more fundamental level, our experience highlights some of the challenges facing the placement experience more broadly.

In terms of the final number of participants, the study relied on gaining permission at a number of levels. Of the original 166 students in this cohort, only 12 were sufficiently interested to seek permission from both their supervising teacher and the school principal. Of the 12, four were successful in gaining permission from both their teacher and the principal. These four pairs submitted complete sets of evaluations of the placement experience using the PEAR and uploaded video recordings. However, only two supervising teachers completed the verbal commentaries as requested.

Anecdotal feedback from the 12 students showed that it was very difficult to gain agreement for the research from either the supervising teacher or the school principal. The reasons for not granting approval included a reluctance to have cameras in the class, disagreements with the methodology or citing a general lack of time to be able to support the project. These barriers, perceived or real, need to be identified and overcome if LOOP were to be more widely adopted in the Australian classroom.

Of the four that were successful, there was general agreement regarding the soundness of the methodology and a desire to support the pre-service teachers as far as possible. Moving forward, we propose that research of this kind would have benefit from existing partnerships between the Faculty and the schools. Such partnerships would have agreed upon research agendas as well as commitments to the education of pre-service teachers.

Once implemented, the LOOP was not problematic for either the pre-service or their supervising teacher. The technology and associated protocols were easily negotiated by both parties, despite it being time consuming for Teacher B. However, the supervising teachers were not unanimous in their belief that the verbal commentaries would enhance either their feedback or their self-reflection. Teacher A responded more positively than Teacher B, particularly in relation to enhancing self-reflection.

On the other hand, both pre-service teachers were more positive about the potential of the LOOP to enhance their professional development. A frequency analysis of the verbal commentaries showed that the feedback focussed on Standards 1, 2, 3, 4 and 5, although it was possible to include Standards 6 (Engage in professional learning) and 7 (Engage professionally with colleagues, parents/carers, and the community).

Moreover the quality of the feedback was significantly increased when comparing the written feedback with the verbal feedback. The pre-service teachers were able to directly relate the comments with specific instances in their lesson, helping to enhance their understanding of the comments made by their supervising teacher. For example, PST2 commented that it was possible to gain a better understanding of the background of the students (Standard 4) in order to create a more conducive learning environment through the recording and associated commentary. Furthermore, PST1 commented that the video

recording and commentary “reinforced” the points made by the supervising teacher during previous discussions.

Importantly, we also note the discrepancy between what Teacher B said in response to the question “Has the commentary feedback has enhanced the quality of your feedback to the PST?” (Table 4) and the quality and quantity of the audio feedback as reported in Table 2. So, on the one hand the supervising teacher expressed reluctance in using the process but, on the other, provided feedback that the process was rich. Furthermore, the pre-service teacher of Teacher B appreciated the additional comments provided through the recording (Table 3).

For us, the inability of either teacher to grasp the potential of the LOOP to enhance feedback is an area of concern. Clearly, the benefit of the LOOP for pre-service teachers could be enhanced once their supervisors become aware of its potential. Again, establishing partnerships between Faculty and schools would facilitate such awareness.

As explained earlier, members of the Monash faculty were not directly involved in the field experience or the subsequent discussions between the supervising teacher and the pre-service teacher because such interactions are not part of the normal practice of this university. However, we acknowledge that other universities do require university faculty to visit pre-service teachers during their field experience. The use of video-recordings could provide additional opportunities for faculty members to provide feedback to the both the pre-service and supervising teacher, particularly during aspects of classroom practice, thereby addressing issues raised in Ussher and Carss (2014). The parameters that ensure the usefulness of such feedback in the Australian context would need to be investigated.

In conclusion, we believe that LOOP offers the potential to enhance the professional development of pre-service teachers during their placement. Despite the static nature of the Flip Camera limiting the classroom viewpoint, it allows the supervising teacher to add a more detailed and contextualised perspective to their feedback. This allows the pre-service teacher unlimited opportunities to review their teaching against the Standards and to address areas of concern.

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