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An investigation of emergency virtual observation (EVO) in initial teacher education, in Australia and Ireland during the COVID-19 pandemic

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When the World Health Organisation declared the novel Coronavirus outbreak a global pandemic, a change occurred across all levels of the educational landscape. It posed specific challenges in the context of initial teacher education (ITE) and inhibited teacher educators from physically observing pre-service teachers' lessons on school placement. However, developments in virtual live-streaming technology facilitate student teachers' lessons being observed by teacher educators in real-time without the need to visit schools. This paper reports on a study conducted in Ireland and Australia in the context of COVID-19 to evaluate emergency virtual observation (EVO) during school placement. Contextualised within teacher education in two University settings, the experience of EVO for a cohort of pre-service teachers and school placement tutors is explored. Findings present affordances and challenges, offering direction for initial teacher education school placement observation in a post-COVID era.

Keywords: Virtual observation; teacher education; school placement

Research background and rationale

The COVID-19 pandemic has created disruption for stakeholders at all levels of education (Flores and Gago 2020) and has resulted in emergency responses initially aimed at online approaches to teaching and learning (OECD 2020). In the field of initial teacher education (ITE) further significant challenges have emerged in relation to managing and assessing school placement. For student teachers, placement affords an opportunity to bring theory and practice together and can be 'a deeply meaningful professional experience' supported by appropriate mentoring, professional conversations and feedback from teacher educators (Hall et al. 2018, 13).

Following the reopening of schools in Australia (July 2020) and Ireland (September 2020), travel restrictions and protocols put in place by schools in response to the pandemic, created an assessment conundrum for teacher educators unable to physically observe student teachers' classroom teaching, considered 'a rite of passage to guarantee teacher

competence … and hence certification' (Moyo 2020, 4–5). ITE providers were consequently 'forced to adapt student teachers' placement programmes to fit the ongoing adjustments being made both in schools and the tertiary education sector' (Sepulveda-Escobar and Morrison 2020, 587). In Ireland, The Teaching Council (2020, 4) recommended a range of flexible assessment options that included 'on-site tutor visits … microteaching, live streaming, portfolio-based learning, [and] reflective practice'. In Australia, the decision was determined by individual universities in consultation with schools.

Developments in virtual live-streaming technology continue to influence conventional methods of classroom observation whereby student teachers can be observed by teacher educators in real time through digital networks without the need to physically visit schools. There are significant advantages to this approach including reduced travel, time, expense and reactivity, with a simultaneous increase in the frequency and flexibility of observations (Bolton 2010; Liang 2015). Additionally, virtual classroom observation can moderate the level of subjective judgement by increasing the number of observers and a variety of feedback sources, enabling professional dialogue and support for the ongoing professional learning of student teachers and teacher educators (Mac Mahon, Ó Grádaigh, and Ní Ghuidhir 2019).

Challenges include permission and privacy concerns, technological issues and the limited perspective of the camera (Dyke, Harding, and Liddon 2008; Marsh and Mitchell 2014; Van Boxtel 2017).

This paper explores the realities of emergency virtual observation (EVO) during the global pandemic from the viewpoint of student teachers and teacher educators in both Ireland and Australia.

Methodology and theoretical perspective

A qualitative case study approach was adopted as it facilitated 'the detailed inquiry of a unit of analysis as a bounded system, over time within its context' (Harrison et al. 2017). The bounded system was school placement observations, the time period July-December 2020, and the context of the COVID-19 global pandemic. Focus groups were used in this research to maximise the collection of rich qualitative data from ' individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research' (Powell, Single, and Lloyd 1996, 499). Participants were sampled through a purposively and convenience sampling approach (Bryman 2008) and recruited via an email invitation circulated by administration staff at each Higher Education Institution (HEI). While using volunteers may skew a sample towards those who are naturally more confident, motivated, able, focused and assertive (Cohen, Manion, and Morrison 2013), this was deemed most suitable.

As illustrated in Figure 1, participants ($N = 49$) were divided into two groups – Student Teachers (STs) and Higher Education Institution Placement Tutors (HPTs, referred to as School Placement Tutors in Ireland and Tertiary Supervisors in Australia). There were four ST focus groups comprising eight Irish (STIE) and eight Australian (STAU). Six HEI placement tutor focus groups were conducted, three in each continent, comprising fourteen placement tutors from Ireland (HTPIE) and twelve from Australia (HTPAU). To ensure impartiality and anonymity each focus group was facilitated by researchers from the reciprocal continent.

Prior to the focus groups, an exploratory pilot study was conducted where Australian teacher educators engaged in EVO of Irish student teachers and vice versa ($N = 7$
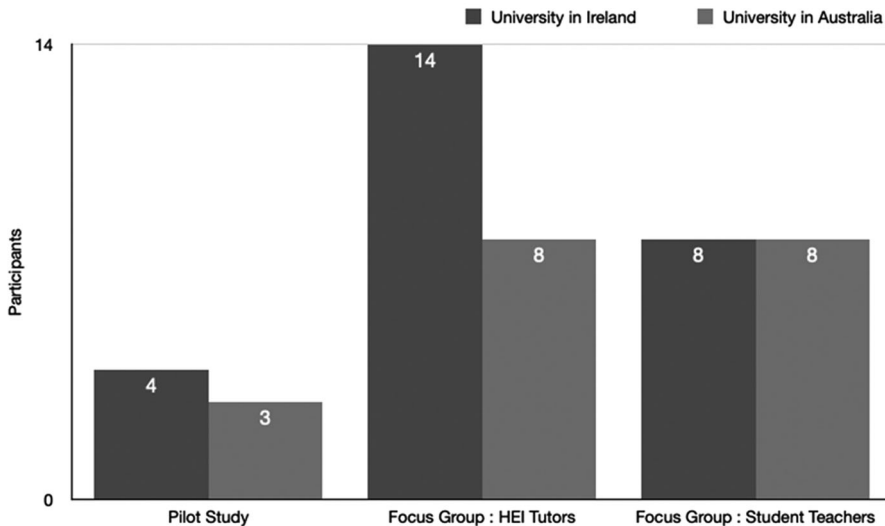
Figure 1.   Population of study.

visits). This gave an invaluable insight into EVO practices and a greater understanding of the country context and COVID-19 restrictions within schools.

Findings and results

Initial apprehension

Focus group participants indicated that prior to engaging they were 'worried' (ST7AU) and experienced 'trepidation about the operationalisation … and the ecological validity of it in terms of would it give a really accurate window into practice' (HPT13IE). Both groups reported being nervous regarding 'the technical side' (ST1IE; HPT2IE), and apprehensive about the reliability of wifi (ST7AU, ST7IE). STs feared EVO would prevent them from showing 'how you can teach' (ST5AU) and were anxious about being observed by 'multiple eyes' (ST7AU). However, tutors with health issues welcomed the 'opportunity to participate' (HPT1AU), regarding EVO as 'the best alternative' given that 'no way I was going into schools' (HPT4AU). HPTs and STs who had used virtual observation previously stated it was a 'better option than no observation' indicating they 'wanted to embrace it' (HPT5AU).

Affordances

There were three overarching affordances relating to emergency virtual observation.

Insight into teaching and school context

EVO allowed for 'a more authentic experience' (ST6AU) and represented a 'great way … to have someone really see you teach' and provide feedback (ST7AU). It allowed observers a 'very good insight' (ST13IE) into student teachers' 'energy …

pace of delivery, diction, interaction with the students' (HPT1IE) and 'a more realistic window into … actual practice' (HPT13IE).

HPT13IE commented that it gave 'a concrete insight on how the COVID-19 protocols are impacting on teaching freedoms, and how it was so restrictive' which otherwise would not be visible to them. 'It was interesting to see into the COVID-19 Classroom, and how it varied considerably from school to school' (HPT7AU). ST1IE, who did a placement in a capabilities unit spoke of having to teach 'wearing PPE with full head dress … because when kids get escalated they can bite and spit'.

STs and their pupils 'totally forgot the camera was there' and regarded it as 'just a normal day' (ST3IE) where 'I was more real with the kids and more authentic' (ST6AU). There was general agreement that the 'virtual presence was less obtrusive' (HPT13IE) and lessened reactivity.

Alternative assessment methods

Alternative methods of assessment in response to COVID-19 restrictions including professional conversations, lesson planning, portfolio and written reflections, were discussed. STs and HPTs were in agreement that EVO was the preferred option.

> We did professional conversations with them instead of EVO and there is no comparison, … I still feel that I don't know what they are like as a teacher. (HPT14IE)

> The professional conversations were great but you don't see what the student had to experience - EVO affords that you see how the ST managed with those restrictions. (HPT2IE)

Similarly, there was widespread agreement that being able to produce the 'best lesson plans in the world … doesn't mean you are a good teacher' (HPT8AU).

> I much preferred them actually seeing me teach – even if it terrified me. (ST1IE)

> having a conversation or written feedback can only do so much. (ST7AU)

> All our other … assessments are written … You can talk all you want about teaching, but it makes a big difference if you can actually do it. (ST8AU)

Flexibility

Both groups valued the flexibility and varying perspectives afforded, highlighting the 'extra critique … and different feedback from every tutor' (ST3IE) and 'different perspectives' (ST7IE), as 'everyone picks up on something different and you … become a better teacher' (ST1IE).

EVO allowed flexibility regarding the timing of feedback which provided an opportunity to reflect

> the reflective discussion later on after the class was probably a bit more meaningful, a bit deeper. It felt like it was a more protected time for it and that they took it a little bit more seriously whereas I think if it's done … immediately after the class and the student is still a little bit frazzled I haven't had the time to really process the class and to reflect on it

personally … so I felt that gap between the virtual observation and the meeting … was actually really beneficial for both of us. (HPT13IE)

Decompression period after the class can be very helpful. It gives you and your student an opportunity to gather your thoughts. (HPT10IE)

Additionally, STs in remote Australian schools were 'grateful' for the visibility afforded by EVO as it was not otherwise 'feasible' (ST6AU) for tutors to physically visit the school due to distance. The pandemic had consequently 'opened up a new way of doing things' (ST1IE) without the 'logistical constraints' (HPT13IE) and 'geographic practicalities' (HPT7AU) of travel. This significant difference between the Irish and Australian context was also apparent during the pilot study. Student teachers in 'rural settings' would not have received a physical observation visit in Australia were it not facilitated through virtual observations. Irish student teachers, however, receive a minimum of three visits a year, regardless of the school location.

Challenges

For some STs the fixed position of a single camera restricted them to the 'top of the classroom' (ST3IE) and prevented them from 'doing groupwork activities or … interacting' (ST3AU). While some had 'picked up the laptop and walked around with it [the effect] was like experiencing motion sickness' (HPT11AU). Unable to show the 'intimate moments' (ST1AU) they believed that EVO 'works better for explicit instruction than it does for roaming the class' (ST8AU2).

Sound quality and the position of the camera were recurring issues, blurring the 'contextual nuances' (HPT13IE), 'incidentals' (HPT3AU) and 'interactions with students' that occurred in classrooms (HPT7AU). HPTs also missed interacting with pupils and 'being able to see pieces of [their] work' (HPT9AU). At a wider level, EVO did not facilitate evaluation of the 'professional conduct [such as] the way a student comes to meet you and greet you at the door of the school … how they interact with other teachers on an informal organic basis' (HPT13IE). Another 'big negative [was] the lack of personal contact with the cooperating teacher and the principal' (HPT7IE), as 'these relationships are very important and difficult to develop at a distance' (HPT9IE).

A challenge also was 'the inconsistency between different educational institutions' (HPT4AU) in relation to privacy issues which in some cases prevented schools from granting permission to use EVO. It was felt that 'a lot of the vocabulary around trying to get access into schools has frightened the principals and frightened the schools … words like live streaming or virtual observation … that it is all going to be recorded' (HPT5IE).

Role post-pandemic

The absence of 'logistical constraints' (HPT13IE) now opened the possibility of receiving feedback and support from multiple observers, and this had the potential to make assessment 'a fairer process' (HPT13IE) by incorporating feedback from subject specialists or by facilitating 'a second opinion … as making a judgement can be a lonely place' (HPT8IE). The possibility of adding an international dimension to the process had the potential to be 'totally more than most student teachers could

even imagine' (ST3IE). Financial and environmental advantages were also highlighted.

It was stated that the pandemic had 'pushed' the education system 'off the deep end' (HPT12IE) and compelled it to embrace technology in order to function, giving 'some sort of normality to what was not a very normal period of people's lives' (HPT5AU). All participants recognised the value and need to embrace virtual observation (HPT7IE, ST6IE). Rather than replacing in-person observation there was a unanimous preference for 'a combination' (HPT9AU) of both with a 'hybrid model' (HPT13IE) offering 'the best of both worlds' (ST2IE).

Discussion and conclusion, including future-facing recommendations

This study examined the implementation of EVO during the pandemic, from the viewpoint of participating STs and HEI tutors in Ireland and Australia. Findings indicate overwhelmingly positive experiences despite initial apprehension, and confirm reduced reactivity and the potential for increased feedback as affordances highlighted in earlier studies (Bolton 2010; Mac Mahon, Ó Grádaigh, and Ní Ghuidhir 2019). In relation to ITE this study shows EVO to be an effective tool in the assessment and support of STs and in doing so challenges the argument by Moyo (2020, 9) that the 'advent of technologies has seemingly had little impact on the assessment of the practicum'.

Assessment was a central focus, and in particular, the use of EVO in the assessment of student teachers' practical school placement. EVO supported this process by facilitating an authentic insight into classroom teaching and was the unanimously preferred assessment option in comparison to other approximated means. This reinforces the view that school placement and support for STs in practice is a vital rite of passage to being a teacher and 'a critical part of initial teacher education' (The Teaching Council 2013). EVO provided insight into the range of challenges resulting from pandemic protocols which had to be addressed by STs in each local school context. HPTs were consequently impressed by their resilience and flexibility, their ability to cope and how they adapted. EVO facilitated the development of a strong bond between tutors and student teachers, which was further strengthened by flexibility regarding the timing of feedback which resulted in it being more effective and meaningful. Indeed, a recurring theme was the overall flexibility afforded by EVO, not just in its ability to overcome geographical constraints, but the likely future environmental benefits and its potential for bringing both subject specialists and an international dimension to the feedback process.

Limitations highlighted reflect those found in earlier studies, namely difficulties in accessing 'events occurring out of camera shot or where behaviour cannot be viewed on cameras clearly' (Liang 2015, 249). However, a further finding here highlights HPTs' difficulties in assessing the on-site professional conduct of STs outside of the classroom and on forming and maintaining personal relationships with school staff and management. Many of these difficulties can be addressed post-pandemic by using a hybrid approach to placement through a combination of physical and virtual observations. While this was the stated preference of all participants, it also raises concerns regarding equity and the need to ensure a similar approach for all if implemented. A further concern is a clarity for schools and management who

must be reassured regarding privacy and consent issues to ensure permission to live stream. This project did seek and receive consent from all participants as per GDPR and ethics requirements. Furthermore, it is our contention that reservations in relation to data privacy and data safety are unfounded as no data was recorded, stored or shared using our delivery method, which was live-streamed.

It is our contention that due to these significant findings, there is a place for virtual observation post-COVID-19 pandemic, not as a replacement but rather in addition to the traditional physical school visit. A hybrid model is proposed where the limitations of one can be compensated by the other. Through the sharing of practice in both jurisdictions, our model of SP observation offers the same support to all student teachers no matter where they are located which may not only be a better system, but also a fairer and more ethical method of assessment.

Ethical considerations
NUI Galway, REC #2020.10.006; University of Technology Sydney UTS HREC #ETH20-5579.

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