TECHNOLOGY AT WORK: REMOTE SUPERVISION OF TEACHING PRACTICE AT A SWEDISH UNIVERSITY

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Abstract: This article describes how remote supervision of teacher trainees was set up and carried out during the period from autumn 2015 to autumn 2017. In the autumn of 2015 Linnaeus University in southern Sweden started an operation to remotely supervise teacher trainees doing one of their teaching practices outside Sweden. The operation entailed each teacher trainee being lent an iPad Mini, loaded with the apps they needed, so that they could record lesson elements on their teaching practice. These lesson elements were then uploaded to the university's Moodle platform and the trainees received formative assessment of their performance on an ongoing basis throughout their 5-week teaching practice.

Keywords: remote supervision teaching practice

INTRODUCTION

Linnaeus University in south-eastern Sweden has chosen 'internationalisation' as one of the principles that should permeate the organisation. Students are thus encouraged to 'think internationally' throughout their studies and teacher trainees in particular are encouraged to both spend a semester at a partner university abroad and to carry out their third teaching practice (where the focus for primary and junior trainees is on teaching English) in a school abroad. When this practice was launched in autumn 2015, the challenge was to find a way of supervising trainees as they did their teaching practice abroad, since it was not practically or economically feasible to send a supervisor from the university to schools in places as far apart as Moshi in Tanzania and Florida. This teaching practice period is the third one in the programme for primary and junior teacher trainees where the focus is on teaching English, so the challenge was passed on to the English group of the Department for Languages in Kalmar. This article describes how the remote supervision operation was designed and has been carried out in the three years it has been running.

1. BACKGROUND AND DESIGN

1.1 The Origins of the Remote Supervision Organisation

In 2014 Dr Chris Allen from the English group assisted teachers at our partner university in Guayaquil, Ecuador (Casa Grande) with assessing the performance of trainees there who were studying the TKT course (Test of Knowledge of Teaching, a University of Cambridge professional qualification for teachers of English as a Foreign Language). The teachers in Guayaquil recorded practice lessons carried out by their trainees with iPhones and uploaded them to a Box server at Linnaeus University. Swedish universities have Teachers at Box (https://www.box.com/en-gb/home) organised by SUNET (the Swedish University Network) with unlimited capacity, so this was the only practical way for the teachers in Ecuador to upload large video files. Dr Allen then made notes on the trainees' performance and held on-line discussions with his colleagues at Casa Grande about aspects of the performance.

1.2 Adaptations from the Casa Grande Experience

The team in Kalmar learned a lot from the experience with the Casa Grande project. Firstly, an iPhone is not the ideal hand-held camera to record an ongoing lesson. It is very difficult for the person filming to keep the iPhone still enough for long enough and when she moves around, it is also difficult to keep the focus on the 'action'. It was thus decided to invest in iPad Minis, which have a larger screen, thus making it easier for the person filming to take in more of the activity in the classroom and to hold the iPad Mini still to avoid a jerky picture. Even so, it was clear that the trainees would need practice with filming a whole room when the iPad Minis were handed over, despite their being quite sophisticated in their use of technology (they were mostly used to filming 'selfies').

It was clear too that a 15-30 minute recording was going to be too long for the purpose of remotely supervising teaching practice. Part of the problem was the time taken to upload the video file, especially from some of the locations the trainees were going to. Another problem was the time it would take to watch and then comment on the video clip. The supervisor of the trainees was given the standard seven 'clock-hours' to supervise each trainee, which is the same allocation given if the trainee were to carry out her teaching practice locally. Since this operation was to become part of the standard practice of the programme, rather than a project with separate funding for a short period of time, it was important that the operation functioned under the same budgetary constraints as locally-based teaching practice supervision.

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¹ 'Clock hours' is the amount of time allocated to each teaching and supervising activity on a teacher's time sheet. In practice the amount of actual contact time will be less than this in order to account for preparation and follow-up.

A long recording would also make it difficult to build an element of formative assessment into the operation, which was one of the preferred outcomes of the teacher training programme. It was thus decided to break the assessed lesson material down into four separate lesson elements which represented both elements you could expect to see in an English lesson and elements which would form a normal part of the overall assessment of the trainee as a teacher (not just a language teacher). These lesson elements were as follows:

- Lesson Element 1: A recording of the start of an English lesson, covering the initial presentation of the subject of the lesson and instructions to the class
- Lesson Element 2: Vocabulary/grammar/pronunciation teaching: presenting and teaching the particular vocabulary, structures and/or pronunciation being covered in the lesson
- Lesson Element 3: Monitoring pair/group work: supervising pair/group work and helping groups of pupils with specific language points
- Lesson Element 4: Rounding the lesson off: finishing the lesson, tying up loose ends, summarising what's been learned, preparing for the next set of activities

Each of these lesson elements was linked to the overall goals of the teaching practice assessment (see Chapter 1.3 below).

Since the Casa Grande project, SUNET had also signed an agreement with the Kaltura organisation (https://corp.kaltura.com) to provide each Swedish university with an unlimited capacity for streamed video. The Kaltura function was also now an integral part of our Moodle server, so that video could be uploaded by the trainees to Moodle pages quickly. This meant that each Lesson Element recording could be uploaded to an Assessment page on Moodle for that particular trainee. This in turn allowed the viewing of each recording to be restricted to just the supervisor and the trainee. It also allowed the supervisor to make extensive written comments on each Lesson Element, which would be made immediately available to the trainee. A template was devised to provide a standard format for comments on each recording:

Feedback on your Lesson Element

Summary

Planning

Execution

Miscellaneous

The Bottom Line ...

1.3 Teaching Practice Organisation and Assessment at Linnaeus University

Teaching practice is seen as 'school-based training', so the mentor at the school is the person who ultimately makes the recommendation to the university about whether a particular trainee has passed her teaching practice or failed it. The job of the supervisor from the subject-teaching department is to provide a specialist judgement of the trainee's performance in the subject, as well as confirming the judgement of the mentor. The mentor has a booklet describing the goals to be achieved during each period of teaching practice, some of which can be 'demonstrated' during a lesson, but some of which cannot. For example, one of the goals of the third teaching practice period (the one being remotely supervised in this case) is to demonstrate that a trainee can fit in the overall work of the school and another is to demonstrate that the trainee can liaise with the parents. Neither of these can be filmed!

At the end of the teaching practice period a meeting is held at the university where the assessment of the mentor and the judgements of the supervisor are compared by the Examiner, who sets the trainee's final grade for the teaching practice period.

If a trainee is having difficulty during the teaching practice period, ideally a second visit by a supervisor takes place to see whether the advice the trainee has received from both supervisor or mentor is being followed. However, since most visits to locally-based trainees cannot take place until the third week of a four-week teaching practice period, there is often little time for development and improvement to take place. One advantage of the remote supervision organisation is that Lesson Elements begin to be uploaded and commented on from the very first week of the practice, so trainees have an opportunity to reflect on their own practice and receive ongoing feedback (See Sub-Chapter 2.3.2 below for further discussion of this point.)

1.4 Designing the iPad Mini Interface

When the iPad Minis had been purchased, the next task was to design the interface the students would use. It was decided to reduce the number of icons on the 'front page' of the iPad Mini and put any icons that were not going to be needed into folders on the second screen of the iPad, so that the student could scroll to that screen if needed.

From the 'front page' of the iPad Minis, the students can access Settings to connect their iPad Mini up to wifi, click on an icon to open the Moodle site, use Skype to contact their supervisor directly (or contact other people) and click on the Camera icon to start filming.

2. REMOTE SUPERVISION IN PRACTICE

2.1 Preparing the iPad Minis

When the iPad Minis are to be used for a new group of trainees, they first need to be checked to make sure that the previous users have not left any photographs or videos on the iPad. The fact that iPad Minis are designed around a user with an Apple ID also creates some complications for upgrading the various apps and operating systems to the latest versions. Our Edtech (Educational Technologist) first needs to log on to the iPad Mini as himself and then, when the iPad Mini is fully prepared for the new user, remove his Apple ID so that the new user can enter hers into the iPad Mini.

Finally, the iPad Minis are fully charged and a receipt is prepared so that the new user can sign for the iPad before she leaves Sweden.

2.2 Preparing the Trainees

The practical details of the trainees' stay in the school abroad are taken care of by other departments within the university. These include finding a school, arranging for vaccinations (if necessary), arranging for the trainees to be included on the Swedish state's travel insurance policy and booking flights. The trainees also attend a general orientation session about working in a school abroad.

The supervisor and the Edtech then meet the trainees to hand over their iPad Minis and a pack of materials they will need when they are away, including a copy of the Teaching Practice Assessment Booklet in English (unless the trainee is visiting a Swedish school abroad, in which case the standard Swedish version is provided) and details of the university's requirements for filming and uploading recordings of the Lesson Elements. This meeting finishes with practical recording sessions, so that the trainees learn how far away they will need the person filming to stand and the optimal camera angles to cover both 'whole room' filming and the filming of pair work and small group work, especially during the filming of Lesson Element 3 (see Chapter 1.2 above). The trainees often feel that 'they can do all this', since they are familiar with new technology, but the practical session is very useful for making sure that they really understand the need to create clear accounts of what is going on in the classroom.

2.3 Out in the Field

2.3.1 The Schools

We have sent trainees with iPad Minis to schools in Tanzania, Kenya, Florida, Majorca and the Canary Islands. The schools in Majorca and the Canary Islands are Swedish schools, which operate under the Swedish school curriculum, although the pupils in those schools have a much more diverse background than is found in schools in Sweden. It is common, for example, for the pupils to have only one Swedish-speaking parent and for them to use Spanish at home. They are also, naturally, not growing up in a Swedish cultural environment, so the trainees have

to adapt their teaching to this environment by, for example, including materials in their English lessons which involve characters from well-known Swedish children's stories (but in English). These schools are, however, equipped in a very similar way to schools in Sweden and have good wifi capabilities. One consequence of this is that it is possible to have a joint meeting with the trainee, her mentor and the supervisor at the university via Skype towards the end of the period of teaching practice. The mentors are also very familiar with the teacher training system in Sweden (all of them have been trained at Swedish universities themselves), so little explanation of how a period of teaching practice is organised needs to be given.

The environments of the schools in Tanzania, Kenya and Florida are, of course, quite different from this. One of the common problems is that the mentors in the schools are not familiar with the requirement that the trainees need to work with pupils of the right ages. I.e. primary teacher trainees need to work with primary-aged pupils and junior trainees with junior-aged ones. Another problem was the very different disciplinary procedures in these schools. In Sweden it is illegal for an adult to strike a child, so the trainees going to these schools were initially shocked when teachers used a cane or an open hand to strike young children. The school in Florida had a team of uniformed armed guards who came and removed pupils seen as 'disruptive' from the classroom, which was also something of a shock to the Swedish trainee. In each case an urgent Skype call was made to the supervisor in Sweden shortly after the trainees' arrivals in the schools from the trainee's iPad Mini and measures were put in place to deal with the situation (the schools in Tanzania and Kenya, for example, agreed not to strike pupils *in front of the Swedish teacher trainees*).

In Tanzania and Kenya the trainees had to learn to cope with very large classes (50 to 75 pupils in each class) and a lack of the kinds of modern amenities they were used to, such as photocopiers and whiteboards. The pupils in those schools were being taught in a very competitive environment with frequent examinations which largely tested the pupils' abilities to memorise factual information. In the schools in both of these countries the trainees also needed to teach the pupils how to work together on a task (which was of great importance for Lesson Element), since they had never done so before. The blackboards the trainees worked with were often damaged, so board work skills were more important than they would be in Sweden.

2.3.2 The Trainees

There have nearly always been two trainees in each school (Florida and Kenya are the exceptions), so it has been possible for the trainee to be filmed by a colleague from Sweden. With few exceptions, the trainees have been prompt in uploading their films of Lesson Elements and have received detailed feedback within 24 hours. In most cases, it has been possible to see the formative effect of the feedback they have received on their performance with subsequent Lesson Elements.

In the schools in Kenya and Tanzania in particular the pupils became very excited at being filmed, although they slowly became accustomed to it during the first week. The trainees had also never seen themselves in front of a class, so nearly all of them made many more films of themselves at work than they uploaded. The trainees who did this all stated that the experience of seeing themselves at work aided their development as teachers greatly.

2.3.4 The Feedback

On a visit to a teacher trainee carrying out her teaching practice locally in Sweden, the supervisor watches one lesson and then has a feedback session with the trainee and her mentor which takes approximately 45 minutes. This feedback session covers every aspect of her English teaching and her performance in the school.

When this feedback is given remotely, in writing and in four sections, it is possible for the supervisor to make much more detailed observations about the trainee's performance, with specific references to the recording, which the trainee can go back and watch again, looking out for the specific piece of feedback. It is also much easier for the supervisor to refer to topics such as the overall shape of the lesson and detail of the trainee's feedback to her pupils in such a way that the trainee can reflect more deeply on it. It is very common that a trainee is under a lot of stress when she meets her supervisor face-to-face immediately after having delivered a one-off lesson. Under those circumstances reflection and deep analysis is much more difficult and the supervisor does not have the time or the access to course materials to be able to give detailed references to the textbooks the trainee used on her theoretical course.

Dr Chris Allen of Linnaeus University and Dr Stella Hadjistassou of the University of Cyprus analyse the feedback a group of remotely-supervised teacher trainees received in much more detail in an upcoming article in The ELT Journal entitled "Remote tutoring of pre-service EFL teachers using iPads".

On their return to Sweden the trainees meet their supervisor again, partly to return the iPads, but mostly to evaluate the experience of being remotely supervised together. In these sessions the trainees always mention the value of receiving such detailed feedback which is linked to a video recording they can go back and watch again. They also mention the way their own practice develops when they watch themselves on the iPads.

3. DISCUSSION

3.1 Aspects of the Design of the Remote Supervision Organisation

Part of the original brief to set up this remote supervision organisation was making the experience of being remotely supervised as similar as possible to the

conventional way of supervising locally-based teaching practice. This brief has been adhered to as much as possible, but it is clear that there are some significant differences between remote supervision and the 'standard' way of supervising teaching practice. One of these differences is that the existence of clearly-defined Lesson Elements already provides a structure to the trainees' lessons, which locally-based trainees have to devise for themselves. It is theoretically possible for a locally-based trainee to contact her supervisor in advance and ask for guidance on structuring her demonstration lesson, but this almost never happens. Trainees are nearly always too busy teaching and working in the school to contact the university for guidance on a particular lesson. The structure of the four Lesson Elements, on the other hand, gives a ready-made structure to a language lesson. The remotelysupervised trainees are also told at the initial meeting that they can either film the four Lesson Elements in the same lesson or can film different lessons where a particular Lesson Element appears. In nearly every case the trainees have chosen to split their filming of the Lesson Elements up over four weeks and four lessons. There are separate upload links for each Lesson Element on the Moodle site, but the trainees are not obliged to upload their films in order.

In the instructions remotely-supervised trainees receive each Lesson Element is also cross-referenced to the goals trainees have to achieve during the teaching practice period. This type of explicit link between the individual lesson and the overall goals is not given to locally-based trainees at present. There is no explicit reason for this, but locally-based trainees and remotely-supervised trainees work within different parts of the university's organisation during their teaching practice period, so the locally-based trainees do not receive the same materials as their remotely-supervised colleagues (for example, the locally-based trainees only receive a Swedish version of the teaching practice booklet of goals which their mentors in the schools sign at the end of the teaching practice period - see Sub-Chapter 1.3 above).

There are also aspects of the experience of the remotely-supervised trainees which are difficult to assess, in particular the aspects which cannot be seen during a demonstration lesson. These include how the trainee fits in with the overall work of the school, how the trainee handles pastoral care of individual pupils and how the trainee liaises with the pupils' parents. If the remotely-supervised trainee is placed at a Swedish school abroad - and particularly if the trainee, her mentor and the supervisor are able to have a meeting via Skype at the end of the teaching practice period - then these aspects can be discussed. The mentors in Florida, Kenya and Tanzania, however, are not familiar with the Swedish system of teaching practice supervision and many of these aspects of teaching practice could not be discussed. In Tanzania, for example, the schools are boarding schools, so neither the trainees nor the pupils even met the parents during the teaching practice period. One trainee in Kenya was even inspected by the Kenyan Department of Education, where aspects of the trainee such as deportment, hair care and clothing were assessed.

This assessment did not form any part of the university's assessment of the trainee, but it was something of a unique experience for a Swedish teacher trainee!

3.2 Personal Integrity

One aspect of filming pupils which is potentially difficult is the personal integrity of the pupils being filmed. In Swedish schools it is standard practice for parents to give their approval for their children to be filmed and they are allowed to control how the school uses pictures and film. For example, parents can refuse permission for any pictures or films to be placed on the school's web site or to be used in the school's publicity material. It has proved impossible in practice to obtain this permission from the parents of pupils at the schools chosen for remotely-supervised trainees. One of the problems is simply cultural: other countries do not have the same laws relating to personal integrity that Sweden does, so the schools find it difficult to understand the problem. In the case of Kenya and Tanzania, as stated above in Sub-Chapter 3.1, the schools are boarding schools, so it is impossible in practice to receive permission from the parents. This has caused certain problems for researchers wanting to use the raw materials from the remote-supervision organisation in their research (see Sub-Chapter 3.4 below).

3.3 Impact of the Remote Supervision Organisation on the University

The remote supervision organisation has functioned well for three years at time of writing and the fourth year is being prepared for. The concept of using iPad Minis to film trainees' performance has stimulated a great deal of interest within the rest of the teacher trainee programme at Linnaeus University and the practice has been incorporated into the school-based practice in other subjects. The regular teacher training programme at the Kalmar campus is now organised as a sandwich course, with trainees being attached to one of a consortium of local schools for one school year at a time. The trainees spend alternate weeks at the university and in school, so the in-school week is an ideal time for the trainees to film their performance. Subjects such as Leadership and English have also started using the Veo videotagging system to give feedback on filmed performance (https://www.veo-group.com). (This video-tagging system is not suitable for remotely-supervised trainees because of the video formats involved.)

Another aspect of the remote supervision organisation which has attracted attention in other parts of the teacher training programme is the opportunity to allow students to carry out their teaching practice in other parts of Sweden. Normally trainees are sent to schools in the counties of Kalmar, Blekinge or Kronoberg, which already cover a large area in southern Sweden (approximately 300 kms by 200 kms). Some trainees, however, would like to carry out their teaching practice in more distant parts of Sweden or at times outside the standard teaching practice period (one example is a trainee who was selected for one of the Swedish Olympic athletics teams). Remote supervision could allow trainees like these to be accommodated more easily. There would also be cost implications for the

university. Supervisors travelling to more far away schools are paid travelling expenses and these expenses start to match the running costs of an iPad Mini.

3.4 The Remote Supervision Organisation in Research

The raw material obtained from the remote-supervision organisation is currently being used in a number of research projects being run jointly by the University of Cyprus and Linnaeus University. The fact that the pupils who may appear on the films have not and cannot give their permission to be part of the research projects has caused problems for the researchers as they prepare articles for publications, since such articles may not meet the requirements for the ethical procedures used in the research projects. The trainees themselves are in a slightly different position, since they are in a position to give their consent for the materials to be used in research. Thus far, in consequence, the research has concentrated on the analysis of the written feedback given to trainees and this research will be published in the near future.

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