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Teaching tool codified gestures – Can more people learn more?

Experiences with the Earth Speakr app from digital teacher training

Natasha Janzen Ulbricht

During spring of the academic year 2020-2021, the English Didactics department of the Freie Universität Berlin offered a seminar on drama pedagogy. Given the pandemic and a syllabus which promised future teachers 'teaching through actual classroom practice' it was decided to take the in-person sessions between university students and grade six students online. The result of these collaborative drama lab sessions were Earth Speakr messages which, after being practiced online, were recorded in person at school in the Earth Speakr app by the English teacher, a university student assistant and the course instructor. Once uploaded, these messages become part of the global Earth Speakr artwork initiated by the artist and climate activist Olafur Eliasson. This article lays out some of the parameters, contexts and challenges of the sessions. These are complemented by individual reflections as well as outstanding questions for further research. Linguistic actions used in performative teaching, such as acting during an online guessing game or using gestures to practice pronouncing a word can have transformative effects. Even during pandemic times, there is evidence that these experiences can help learners and teachers to connect and find their own place in the social worlds they move in.

1 Institutional context

In a recent book on pedagogy and philosophy, Gert Biesta comments on the potential and necessity of art in education to be more than creative self-expression.

> Art makes our desires visible, gives them shape, and by trying to come into dialogue with what or who offers resistance, we are at the same time engaged in exploration of the desirability of our desires and in their rearrangement and transformation. (2018, p. 18)

This quote can be aptly applied to the foreign language art project described in this article at several levels. At the institutional level, because of the pandemic, it was necessary to significantly change the drama pedagogy teacher training seminar. From the perspective of good teaching, designing tasks for children who had effectively not had English lessons for weeks involved careful planning and reshaping of these plans during instruction. On a practical level, although the concept of 'giving voice' can be contested (Croegaert, 2020), using an app

to record children's thoughts did enable young people like Pia, Hamid and Aisha[1] to 'speak up' (Eliasson, 2019).

People communicate with one another and with their environment through linguistic action (Sultanescu, 2023). The simple fact that these messages exist means new perspectives have been added to Earth Speakr[2], and these digital contributions provide new possibilities to engage with the messages young people have to share. For example, made using a tree he chose in the school garden, Figure 1 links to Hamid's Earth Speakr message: *I'm a tree. Please don't cut me because I'm good for nature.* Morphing this background with his own voice, this message acknowledges the interdependent relationship between trees and people and shows concern for how humans interact with nature.[3] In what follows, I will explain the specific context of the drama pedagogy teacher training seminar of which the student drama labs were an essential part. My hope is that this detailed description will make it easier for others to apply our findings to their own specific contexts, perhaps resulting in applicability in other places and in other languages.

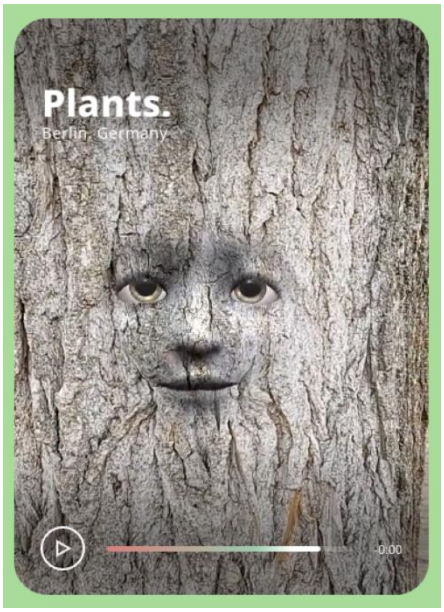


Figure 1: Hamid's message: I'm a tree.

[1] Names are changed in order to protect anonymity.

[2] The Earth Speakr artwork consists of an app, a website in 25 languages and other elements and calls on political decision-makers to listen to the voices of the younger generation and to better take them into account (Eliasson, 2020). The Earth Speakr app allows children who are between age 7 and 17 to make and upload video messages to the internet. These messages combine a voice recording and a video image of an object and result in messages (see Figures 1-3) which can be found on the Earth Speakr map. Adults, while allowed to help, are not permitted to make Earth Speakr messages. Earth Speakr was initiated by Olafur Eliasson and received initial funding through the German government to mark Germany's presidency of the Council of the European Union (Eliasson, 2019) which ran from July to December 2020 (German Federal Foreign Office, 2020).

[3] Figures 1-3 are linked to Earth Speakr where the individual messages can be played (links tested 3 January 2023). For Figure 1 see https://earthspeakr.art/en/message/?id=PHXF7tBw6xgt5bOfxfBH)

The Freie Universität Berlin is a large university located in Berlin, drawing students from Germany as well as from many other parts of the globe. During the spring of 2021 university classes at the FU were almost entirely online, meaning the teaching and learning lab seminars which play an important role in preparatory teacher training were digital (see also Bremer & König, 2020).

Although this did not alter the lesson content, it is worth mentioning that due to the pandemic, the grade 6 class was divided into A and B groups (10 children each) which had alternate instruction. Teaching half the class at a time meant that the same teaching procedure was completed twice. During both sessions the student teachers were online, usually from home, and the grade 6 children were online from the school computer lab. Compared with pre-pandemic times, the class teacher commented that fewer children at once resulted in a classroom atmosphere that was calmer, meaning that some children who "were not able to learn" under normal circumstances were able to concentrate at school during the pandemic. At the same time, she said that for children in the group not at school, uploading tasks to the school online platform was like "sending homework into a black hole", meaning communication was only possible with children when they were physically present in school.

Within the constraints of the pandemic, which were obviously significant, I was given wide latitude in terms of the design, implementation and overall approach of the drama pedagogy seminar. However, my perception of what would benefit my students the most, taking the partner school context into consideration, as well as my own individual areas of expertise led me to choose to make Earth Speakr messages. Earth Speakr messages can be made in any language. They are short, meaning frequent repetition, including repetition paired with gestures, is possible. Making them encourages collaboration, taking the perspectives of others (e.g. in order to "speak as a tree"), practicing technical skills as well as gaining confidence in speaking. Listening to messages other children have created is also a way to build understanding. While past experience working with technology in schools prepared me not be naively optimistic, the benefits of bringing my seminar and the grade six class together seemed worth the risks.

2 Theoretical basis of the project

In order to understand the theoretical starting point for the collaborative drama lab sessions, it is helpful to know the teacher training format the seminar was an expression of. The teaching and learning laboratory seminar is a teacher training format which was first implemented at the Freie Universität in 2016 and can be understood as a response to the need for "both more and better field experiences during early teacher training" (Klempin et al., 2019, p. 51). Following this format, teacher trainees familiarize themselves with pedagogical

theory and then put this theory into practice in a classroom environment which has been simplified. Typical changes include smaller group size, fewer teaching activities or less time spent teaching than in a typical English lesson in school. This teaching experience is then reflected upon, optimized based on the original objectives, and then iteratively explored through a second teaching and reflection phase. It is worth noting that the important role that emotions play in reflection and learning is a theme common to research in anthropology (Stodulka et al., 2019) performative teaching (Crutchfield, 2015) and neurodidactics (Sambanis & Walter, 2019).

While student teachers were introduced to a range of theories and models related to performative foreign language teaching, such as Vygotsky's zone of proximal development (Vygotsky, 1978), in the context of this article Michael Tomasello's usage-based theory of language acquisition (Tomasello, 2009) is of particular importance. Tomasello proposes that children come to the process of language learning equipped with two sets of cognitive skills both evolved for other more general cognitive functions. *Intention-reading*, in which joint attention plays an important role, is what children must do to discern the goals of mature speakers when engaged in communication. *Pattern-finding* is what children must do to productively go beyond the individual utterances they hear in order to create abstract linguistic schemas from which they can productively generalize.

Concerning gesture, researchers have recently proposed the Gesture-for-Conceptualization Hypothesis which states that gestures schematize information and are linked not only to speaking, but also to thinking (Kita et al., 2017). Related to performative teaching, because gestures trigger semantic processing (Kelly et al., 2009; Wu & Coulson, 2007) gestures with an established form-meaning relationship, which have been 'codified', can allow linguistic units, such as words, to be clearly connected to a hand movement. This connection decreases the need for semantic aspects of language comprehension, which allows the brain to save these resources for additional information processing, under many circumstances leading to more robust learning and better retention (Andrä et al., 2020; Skipper, 2014).

Brouwer et al. (2012) have proposed the term 'mental representation of what is being communicated' (MRC) for the internal representation a listener or reader constructs while comprehending a sentence, story, or scene. Relevant for the learning procedures described in the next section, it follows that if in addition to patterns available in speech, gestures make it easier for a learner to construct a correct MRC, this would translate into more efficient mental processing. In essence, given the skills learners have to read intentions and find patterns, if meaningful gestures allow learners to update their MRC with less effort and greater clarity, one could expect the learning that occurs during these interactions to be less tied to contextual familiarity and more prone to consolidation. Because a goal of the teacher training

seminar was for students to gain experience in using drama pedagogy, additional considerations were also important. Taking the restrictions of the classroom setting into account, activities should include forms of interaction which could encourage spontaneous reactions in imaginary situations (Schewe, 2013), allow children the opportunity to develop situations which hold their attention and give them ownership (Even, 2011) and do this through aesthetic and bodily oriented experiences (Miladinović, 2019).

The next section describes the role that pronunciation played in preparing for the drama lab collaborative sessions as well how the teaching itself was structured.

3 Design of the online student drama lab sessions

Pronunciation has been described as the 'Cinderella of language teaching', meaning it is necessary and should be included, but is frequently neglected (Underhill, 2010). This was not always the case. During the time when behaviorism had a strong influence on foreign language learning (roughly between the 1940s and 1970s), audiolingual teaching materials and techniques played an important role in teacher education (Lightbown & Spada, 2010, p. 34). However, when audiolingualism was replaced by other views of learning, such as communicative language teaching, grammar, vocabulary and pragmatics received more and pronunciation much less attention (Lightbown & Spada, 2010, p. 104). Although there is theoretical and empirical work on L2 pronunciation, including research on gesture and pronunciation (Hoetjes & van Maastricht, 2020; Xi et al., 2020), this is beyond the scope of this article. It can be said that learning the phonemes of a foreign language challenges many learners. While learners are frequently judged by their pronunciation, how teachers should best integrate the physicality of pronouncing sounds, words and connected speech into instruction remains a matter of debate.

Prior to the collaborative drama lab sessions, one session of the teacher training seminar focused on understanding difficult sounds in English. One reason for this choice was that the mechanisms of pronunciation tend to be poorly understood by many teachers and as a result they are often poorly taught (Mordellet-Roggenbuck & Settinieri, 2020). Another reason was that, given good headphones with a microphone, working on pronunciation usually works well online.[4] Relevant to the drama lab sessions, two points were important. It was emphasized that /r/, /θ/, /ð/, /ʃ/ and /ʒ/[5] are frequently challenging sounds for German speakers of English

[4] Based on a previous visit, it was known that the laptops in the school did not have built-in cameras. This was an additional consideration in including pronunciation as a seminar topic. The fact that the children would have a 'normal' video conference, in that they would be able to see and hear, and that the students would be able to hear but not see their interlocutor was discussed with the students ahead of time.

[5] The specific sounds were /r/ as in red, /θ/ as in thumb, /ð/ as in mother, /ʃ/ as in shower and /ʒ/ as in television.

to produce, and that an effective strategy to help learners is to coach them in changing their place of articulation from an easy, familiar sound to a difficult, unfamiliar sound and back again. In essence, the trainees received practice in how to connect listening and noticing physical movements in their mouths in an online setting.

The *Dream Job Charades* activity was chosen based on information from the class English teacher, that the children had recently learned about different occupations. This choice was made to include words the children already knew and to provide continuity between the regular English lesson lessons and the drama lab sessions. Pre-teaching tasks assigned to the student teachers included prompts to think about *how to play the dream job game with learners of different ability levels* and *questions you want to use to help your child think of a message.* The lesson itself more or less used the basic structure of warm-up, deepening, and cool-down phases. An analysis of this structure as it relates to performative foreign language teaching can be found (Sambanis, 2013).

Because there were more student teachers than children, students were divided into teaching groups which each met with one child in their own virtual room. While the teaching group decided who would teach or observe first, all students were expected to use the same feedback form adapted from Sorge et al. (2018) during their observation (see Appendix). The decision to use this form was intended to help students observe their peers in a more structured way, as well as facilitate students including these additional perspectives on their teaching in their reflection during the next seminar session several days later. The rest of this section looks at how the different activities were mapped out onto the different parts of the lesson.

3.1 Greeting and Group Warm-up (5 min)

This was a simple version of the clap, box, jump and vanish game Radka Svobodová, a drama in education instructor from Charles University, Czech Republic, had introduced to the seminar earlier in the semester. In this online game players quickly follow the leader's commands. For example, when players hear the word *jump*, they jump out of their seat and quickly sit down. When they hear the word *box*, they box into the camera, and when they hear *vanish,* they quickly lean to the right or left side, disappearing from sight. Although simple, the game requires concentration, because which word will come next is unknown.

3.2 Dream Job charades or What I will be charades (5-7 min)

This activity is a guessing game which follows the guessing pattern of: *Will you be … a nurse?* Movement, sounds and speaking are allowed from the person acting, but it is not permitted to say the name of the job. To play the game children need to know the jobs, know what

people do in these jobs, have ideas about how to act out what these jobs involve. Start with 'easy' jobs. It is fine to repeat them. The point is to enjoy moving, making sounds and guessing. A variation of the game is to encourage children who have guessed the job to join in the scene. (You are right! I am a cook. I'm making a soup. How about you? Can I taste?)

3.3 Let's make an Earth Speakr message

After two warm-up activities, in this next activity the student teacher helped the child to create and memorise a phrase for an Earth Speakr message. Students were also encouraged to play a favorite Earth Speakr message as an example if the child wasn't familiar with the app.[6]

Create a message: Here it is important to try out different messages, so that the child has a choice and doesn't stick with the first message which could work. Maybe there is also time to explore different voices. An example with a tree: How does the tree feel? How does the tree move? Would a big voice fit a little tree? Example of a rock: I'm a rock. I will be part of a beautiful house. Don't just talk about different options, try them out!

Gesture your message: Make up a gesture for every morpheme[7]. Practice the phrase with the correct word order. Do a 'gesture puzzle', meaning present the words of the phrase in random order. Alternate as needed. Listen carefully.

End by writing out the name of the object (a rock, a flower etc.) which will speak and the phrase in its final version on your screen. Have the child copy the words and read them back to you.

Cool-down and goodbye: This final phase in the classroom took place at the front of the room with all the children standing in a half circle in front of my laptop. Although the grade 6 students had seen their student teachers while interacting, until now, the opposite had not been true. Since my laptop had a camera, this made it possible for the children to speak, speak and gesture, or simply read their message for the group. During this phase it was also possible for the student teachers to see the children they had taught before everyone waved goodbye.

[6] A more comprehensive set of instructions is available here: https://wikis.fu-berlin.de/x/-wRjRQ

[7] The suggestion to pair gestures and morphemes was preceded by input on gesture research (Author 2020) as well as practical exercises using gestures in. The overall message to the student teachers before the collaborative sessions was, however, that connecting and "having fun" with their partners was more important than doing all activities, using any certain teaching technique, or speaking only in English.

The following sections describe face to face experiences at school while recording Earth Speakr messages with three different children. These are then followed by student reflections on their online teaching interactions.

4 Pia's Earth Speakr message

All children had written down their messages, in order to facilitate practicing. However, days later, when a student assistant and I returned to the school, perhaps unsurprisingly, several of these cards were missing. As Pia was one of these children without a card, the message she practiced and uploaded was spontaneous. The object Pia chose to speak for was a nearby, bright orange rubbish container (see Figure 2). Unlike many children, when I asked Pia which gesture might represent the word *trash*, she was hesitant. Because this one-on-one interaction was outside of class and not constrained by any time pressure, I decided I would rather not make a quick decision for Pia. After asking questions along the lines of *Wie könnte es aussehen, wenn man Müll wegwirft?*[8] and offering several suggestions without her expressing a clear opinion, I remembered the *Spread the Sign* sign language dictionary (Lydell, 2018) on my phone. When I showed Pia several entries for TRASH, she quickly selected the Icelandic sign as the 'best one', tried it out to confirm her choice, and we could proceed.

The Icelandic sign for TRASH that Pia chose takes place at shoulder height and appears to drop an object through the air. This choice is interesting, because from sign language research we know that when signs have different variants, with an action variant (e.g. writing with a pen) and a perceptual variant (e.g. showing the shape of a pen) children show a clear preference for signs that mimic the action, whereas adults would rather use the more abstract gesture, for example one that resembles the pen's shape (Ortega et al., 2017).

In recent writing on post-method approaches to foreign language teaching, Miladinović has emphasized the importance of reflection and embodied experiences for teachers in guiding them to adapt their teaching to fit to new circumstances (2019). Finding a suitable gesture in this way highlights something about movement and creativity in the classroom. Creativity does not come easily in all circumstances. In this instance, being flexible in where the required gesture came from and the possibility to take time not always available during lessons seemed essential. In the end, her choice of words for a multilingual Berlin rubbish bin seem fitting. Given the scraps of paper that were just beyond the bin, and Pia's flat, monotone voice, this message hints at a use of sarcasm.

[8] This entire conversation was in the child's L1 of German and this sentence can be translated as, 'What could it look like when one throws trash away?'



Figure 2: Pia's message: Use me for your trash.

5 Hamid's Earth Speakr message

Recording Hamid's Earth Speakr message; *I'm a tree. Please don't cut me because I'm good for nature.* (see Figure 1) was also complicated.[9] Possibly because one of the university students was confused about the nature of the task, Hamid initially practiced a message about his plans to become a math teacher — ideas about his personal future. This variation of the task did continue the focus on jobs from the drama lab warm-up game, but unfortunately also included personal information like Hamid's name and age. When the student assistant recording the messages explained that personal information was not allowed and that the messages were intended to give nature a voice, Hamid understood. He quickly moved on to discuss what object he would like to record a message for — cars, bushes or trees. One could say he easily created a new role, a fundamental activity in drama pedagogy (Even, 2011, pp. 304-305). Since pronouncing the word *environment* was difficult for Hamid, the student assistant suggested using the word *nature* instead, because it was close to *Natur,* a familiar German word.

6 Aisha's Earth Speakr message

Compared to Pia and Hamid, Aisha's recording process went smoothly. She had not been in school the day of her online session, but she was well informed about the project from a classmate. The object she decided to speak for was a small patch of grass between the school

[9] For Figure 2 see https://earthspeakr.art/en/message/?id=ZVmqHrBkOUx4Krm6o0E8

sidewalk and the street (see Figure 3).[10] After Aisha decided what to say and we assigned gestures to her words, Aisha seemed to be especially focused and enjoy the practice phase during which I cued her the words she needed to say in random order. The closeup image magnifying grass outside her school links to Aisha's Earth Speakr message: *Did you know I'm a home for insects?* Using a cheerful, playful voice, this question encourages the listener to slow down and ponder an answer.

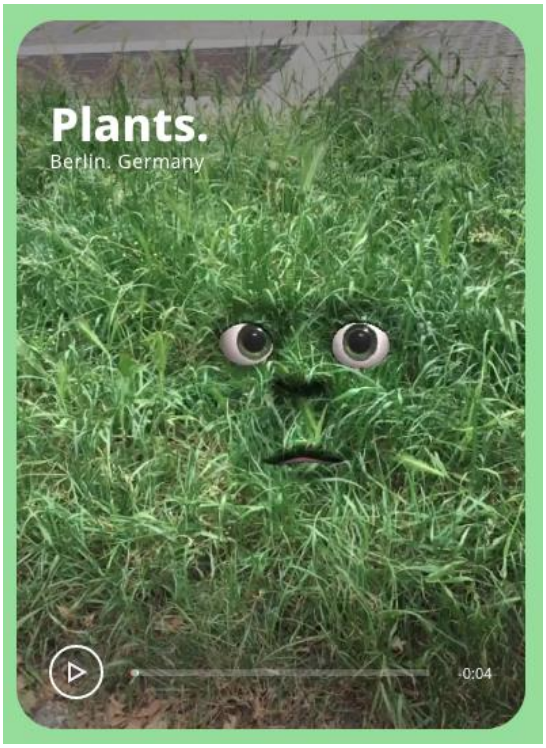


Figure 3: Aisha's message: Did you know I'm a home for insects?

The importance of being in the moment, in contrast to being filled with distraction, is addressed in Jenny Odell's essay "Finding Time in the Age of TikTok":

> As students — and teachers and academic departments and the rest of society — feel the squeeze from a reductive, capitalist understanding of time and its 'results', it's important to push back at whatever level we can. If we want students to be thinkers, then we need to give them time to think. (2019: 5)

The act of Aisha giving a question to a small clump of grass can also be seen as a playful invitation to push back.

[10] For Figure 3 see https://earthspeakr.art/en/message?id=Q3owi9ToGOwZsbKsk5c9

7 Student teacher reflections

Although theoretical constructs were important for the collaborative drama lab sessions, because they played an essential role in determining the content, key factors for success were the patience, cooperation and flexibility of the individuals involved. In their overview of second language acquisition in *How Languages are Learned*, Lightbown and Spada (2010) include these words:

> Researchers and educators who are hoping for language acquisition theories that give them insight into language teaching practice are often frustrated by the lack of agreement among the 'experts'. … Many teachers watch theory development with interest, but must continue to teach and plan lessons and assess students' performance in the absence of a comprehensive theory of second language learning. (2010, pp. 49-50)

Because the drama lab sessions were a part of normal school teaching, while participant observation was allowed, video recordings were not permitted. Thus, it is beyond the scope of this article to go into depth on the gestures used during the collaborative drama lab sessions. Based on personal observation during the teaching sessions, however, the gestures used during charades were primarily creative, non-codified and invented on the spot. In contrast, when children used gestures to practice their Earth Speakr messages, while necessarily beginning with creative movements, many of these gestures did become codified. This is supported by anecdotal evidence from the school garden where children several days later volunteered to show me the word-gesture pairs they had learned.

Given that the children knew that I had organised the collaborative sessions, it is perhaps not unsurprising that some wanted to show me what they had learned. While codified gestures do refer to hand movements with a "dictionary meaning" (Janzen Ulbricht, 2020), this one-to-one relationship is not the only feature. The process of gesture stylisation and schematization also play an important role in their creation (Ortega, 2017; Poggi, 2013) which are reflected in the speed and effort the movement requires.

The next seminar session after teaching was dedicated to students discussing their experiences in small groups and then in plenum. In order to facilitate students being open about their experiences, which I had planned and organized, I was not present in the online small group discussions, although I was present for the large group discussion where small groups summarized their deliberations. After teaching, but before the discussion, I invited all students to answer three questions in writing, which about half did. The purpose of this decision was twofold: to allow students to capture their thoughts before discussing them, and,

to allow them to directly share some aspects of their experience with me. The following quotes are a selection from student teachers answering these questions:

- *What was the Earth Speakr message you and your [grade 6] student created?*
- *What do you feel about what you saw or experienced?*
- *What made it interesting, surprising or noteworthy?*

The premise behind presenting these student teacher reflections is that writing is, while not the only window onto meaning, a productive window into what the teaching experience meant for the student teachers as individuals. These reflections highlight the ability of many future teachers to make pragmatic decisions and be emotionally engaged in what was an experience with many challenges.

While the role of the student teachers was to facilitate their grade six partners in creating an Earth Speakr message, not to create a message themselves, the messages they and their partner created are listed here for reference. The fact that not all students reported their Earth Speakr messages (i.e. Mehmet, Amadeo and Emma) could reflect that some were not able to complete this part of the task. Based on follow-up questions, however, a more likely explanation is that once students were convinced that their child had written his or her message down, they felt the task was completed and remembering the child's message was no longer perceived as important.

Student teacher Mehmet: No Earth Speakr message.

> The session structure was well-thought [through] but couldn't be implemented. … It could have been nice to be directly in contact with a young student as those experiences shape students' perception of future teachers. The session could have been a nice experience.

Mehmet and Charlotte and Adele's comments, further on, contrast differences between what was planned and what happened. Mehmet and Adele's comments are noteworthy in that not all of the emotions are “positive” (Crutchfield, 2015).

Student teacher Charlotte: (speaking as the ocean) *Please do not throw plastic in me because the animals will die!*

> My experience was all in all a good one, even though I was a little confused at the beginning because I was waiting for our group warm up to start and the schedule wasn't quite as planned. So I had to skip the first exercise and just do the Earth speakr message which went very well.
>
> What made it interesting was my conversation with Arthur [grade 6 partner] and talking about his plans for the future. Noteworthy were his very good

> English skills which I did not expect and definitely made things a little easier for me. :)

Charlotte's comments testify to her ability to be flexible and improvise when the scheduled starting time was pushed back. Including a smiley in her email references how emotions are conveyed in real face-to-face settings.

Student teacher Amadeo: No Earth Speakr message.

> I would like to highly mention that the kids were very interested in participating. They were very collaborative. The most interesting aspect for me was that even during a video conference there was a feeling of proximity.

Given the circumstance of teaching online during the pandemic, Amadeo bringing up a "feeling of proximity" seems significant, since this is often hard to create online (Baumann, 2020). This is even more surprising because, as Adela and Felix both mention further on, seeing the children was technically not possible.

Student teacher Adela: Please stop punching me in Minecraft. I am just a tree.

> I was a bit sad because I thought they would know the vocabulary at least a bit and I prepared little pictures of the jobs to hold up to the camera and ask if they still remember the word for that job just to be sure they know all the words before we start the charades, but my child did not know a single word. [Paul] could not understand simple instructions like try again or well done or say it in English so I basically just had to try and teach him the vocabulary. We ended up just trying to pronounce the words but I don't think he actually [will] remember much. The fact that I could not see his face was also adding to a communication problem because he barely spoke.
>
> Right at the end I asked if [Paul] has any interests to see if he knows some English words around that topic for the Earth Speakr message and he told me he liked Minecraft and I think he only started to be interested when I told him that I play as well.

This final comment, where Adele discovers that she and Paul share an interest in the game Minecraft, speaks to the importance of attunement or emotional alignment between the teacher and learner. Attunement in drama pedagogy has been defined as "the empathetically heightened connection with the participants informed by a recognition of group and individual needs, aspirations and issues" (Smith, 2018). Although optimistic, "my child was very nice" and "I had fun", the next comment by Annamarie shows that even when good-will and attention are present, this process may not be completely successful.

Student teacher Annamarie: (speaking as a bottle of water) *I am in the river. Please help me to stay clean by stopping the ships.*

> For me, it was a bit difficult to speak English with my child because the connection via Webex was an additional obstacle. Instead, I tried to bring up a few English words from time to time, that worked well for the both of us. My child was very nice and always answered my question and tried to work with me. I was surprised how well he tried to fulfill my tasks, even though I think he didn't quite understand the point of it. I had fun and I hope he did too.

Given that the technical setup was the same, this quote highlights stark differences in teaching experiences. Whereas Adele said that Paul "barely spoke", about her partner Emma wrote "I could feel he was really engaged" and "he told me he felt like an English person talking."

Student teacher Emma: No Earth Speakr message.

> I was very surprised with the fact that the session worked so well (taking into account that we couldn't see the children). I was also very surprised by my [grade 6] student's English level. He knew the professions really well and I could feel he was really engaged and open to the exercises. With the Earth Speaker message I found it a bit complicated, because I asked [him] if he knew the app, but it seemed like he didn't. That's why the goal for me was that he could write a message in English and that I could correct a few mistakes. At the end, he told me he felt like an English person talking. For me that summarizes the whole activity.

Given the wide variety of experiences and the fact that not all students decided to answer my questions, it is not possible to directly generalise the experiences of those who did to those who chose not to. However, ignoring these reflections and hoping that pandemic-induced online teacher training will soon become a relic of the past also seems unwarranted. Crutchfield has written that while the drama workshop space has many strengths in terms of learning, it is especially important in this context to be clear about the relationship between risk and security for those involved. When asked to perform, individuals differ in where their personal threshold of discomfort lies. (2021, pp. 44-45). Security is necessary at the start of a playful process to enable learners to take risks later on. As described in section three, providing a progression of activities can only go so far. Performative teaching, or perhaps the expectation that one should teach performatively under difficult circumstances, could have pushed some students too far out of their comfort zones. However, even under difficult online circumstances, as demonstrated by both the new Earth Speakr messages and student reflections, student teachers and children can connect and explore learning together.

8 Challenges

Multiple challenges have been mentioned throughout this article. Here are three technical challenges which had emotional repercussions.

- Although the children had access to their computer passwords, and only half the class was in the computer lab at once, it was challenging for the grade 6 students to log on and access the website where the video conference was held, which postponed beginning the session (see Mehmet and Charlotte).
- Because the school was located in an area with unreliable internet coverage, unlike test messages created in other locations, using the app and uploading the messages on site took more time than planned. This meant that it was not possible for all children to record their messages on the day they were composed.
- Permission to upload an Earth Speakr message to the digital work of art could be requested from within the app. This was a nice feature, but it required sending an email and a parent or guardian responding. This could be a source of disappointment because children who are able to download the app and try it on their phone, can mistakenly think that "everything is working" until they find they want to upload their message and can't.

9 Lingering questions

The online collaborative drama lab sessions and the subsequent process of recording the Earth Speakr messages raise a number of interesting and, in some cases troubling questions. Among them is the question of why some schools but not others have the possibility for video conferences where both parties can see each other and easily interact, as well as the lingering doubt that perhaps some of the technical issues could have been better anticipated and more elegantly circumvented. At the same time, institutional circumstances, (that the university mandated using a particular video conferencing platform and that the school must rely on external IT staff to solve server-related technical problems) meant making the best of the situation was necessary. As mentioned above in section 3, while this need for flexibility and adaptability was anticipated, it was still commented on and perceived as unfortunate.

Among the questions related to digital teacher training that seem urgent to address are:

- Given the constraints that exist, how can digital technology best connect future teachers at university and students in school?
- How can the combination of performative teaching and digital technology help learners to achieve better learning results in terms of knowledge, motivation and autonomy?

- How can global access to digital works of art, like Earth Speakr increase engagement, collaboration and meaning in the online or physical foreign language classroom?

Related to knowledge construction and as someone interested in education and the climate, Tanu Biswas highlights the possibility of approaching inquiry not as facing a particular problem to be solved, but as "participating in the mysterious" (2020, p. 77). She also cites Gallacher and Gallagher's (2008) approach of muddling through with ignorance as a promising starting point (2020, p. 7). Seen in this way, teaching experiences are not forced to become a building block which produce a certain result, like improved pronunciation or a predetermined number of Earth Speakr messages, but can be seen as a way to sustain a source of questioning leading to more people, hopefully both adults and children, learning more.

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Appendix

Reflecting on the drama pedagogy teaching sessions
Reflect on experiences and draw possible conclusions.

The teacher I'm observing is: The activity I'm observing is:

Today's date is: The age and first initial of the learner is:

1. What is the **central topic** of the learning activity?

How is this topic relevant for the learner?
(It is in the curriculum, in the textbook, because of the learner's previous experience etc.)

2. Which **problems** or **misunderstandings** did you notice?

How did you/the teacher/the learner respond?

How did you/the teacher/the learner respond?

What could possible consequences for future teaching sessions be?

3. What could the child have **learned** through the activity?
(Anything pronunciation or gesture related?)

What evidence do you have that learning took place?

What could possible consequences for future teaching sessions be?

4. Which **advantages** did the learning activity have?

Which **difficulties** did you notice in student-teacher interaction?

What could possible consequences for future teaching sessions be?
(Is more or different support necessary? Is more time needed? A simpler task?)

Feedback and suggestions for improvement
I liked the learning activity very much because I think…

From how I understand the situation, the teacher could further work on…

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