Assignment 9 - Video Re-recording

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I hereby submit an updated version of Assignment 9.

This assignment is in three parts

1. A short response to an assessor feedback, **which is important in the context of the resit video**
2. **The body of the report** ("Classroom Management" below)
3. A second response to an assessor feedback, which is less important, but I feel strongly about.

Feedback: Wherever I look in the recording, there is no interaction whatsoever. Students might as well not exist in this lesson.

I worry that this assessor has potentially missed the breakout rooms which are unfortunately invisible in these videos. I think if it had been a traditional classroom, I might not have received this comment, as there *is* significant interaction, but it's not necessarily present on video.

Please consider that in the lengthy breakout rooms, students are taking 20-30 minute periods to

- work together to solve challenging problems
- collaborate and discuss
- determine and implement solutions
- teach each other, when one is stronger and *vice versa* learning from the other student(s) when they are weaker in this area

Here we have a significant amount of student interaction. Additionally I am often "walking" around the breakout rooms to check in on students, discuss, and answer their questions. All activities which are *invisible on the recording*, to the assessor. However since I unfortunately missed to make separate additional recordings of my time in the breakout rooms and splice those in with video editing software, this was not present in the final product for a review that might be skipping through the lesson observing a minute here and a minute there.

Additionally to further address assessor concerns, I've added

1. a kahoot at the start to recap the last lesson
2. and homework question period
3. and did a Microsoft Form in chat to determine how long their homework took.

Classroom Management

Overall the classroom is fine, I have essentially zero issues with misbehaviour or disruptive behaviour. They're all adults by this point in their career, they know what's expected of them, and they're starting to understand the independence that's expected of them in the workplace. What really works for me is treating them like adults and holding them to the same standards I'm held to in meetings I attend; if I want my camera off it stays off, if my back-to-back meetings mean I need to eat then I do with mic and camera off. Additionally it is important to note that this classroom is a *subset* of the interactions I have with these students, but by only submitting the classroom recording as evidence, a very limited picture is given of relationships with students and out of class interactions. I am regularly in communication with them via email, teams, and other meetings which provide for different interaction modalities.

Figure 1: **Left** the teacher interface to fastcups, a bar shows the distribution of student responses. Below is the number of students responding to the poll. **Right** is the student interface to fastcups, here a student enters a URL provided by the teacher, and then indicates their feelings. Red for "I'm struggling!", yellow for "I could use more repetition", and green for "It's all good!". The teacher interface is updated in real time based on student responses.

Intervention: FastCups

Per feedback from the assessors who *rightly* point out the lack of student feedback, I've sought out other methodologies. I absolutely agree that it is vital to understand how students are feeling about a topic and if they are successfully keeping up with the material.

To that end, I've introduced the use of fastcups (fig. 1), which mimics a technique I had previously used in in-person programming classes. There we used post-it notes (sticky notes), and would have students swap them out based on how they were feeling. Red for "I'm

struggling!", yellow for "I could use more repetition", and green for "It's all good!"

This methodology works exceedingly well, and better than relying on facial expressions for a significant number of sub-cases. As an instructor I am not familiar with all of the variance in cultural differences of my students, what individual facial expressions mean for one student may mean a completely different thing for another, based on background/cultural differences/etc.

As a teacher I wanted to monitor this constantly during, and would use this to compare student feelings before and after a step (fig. 2)

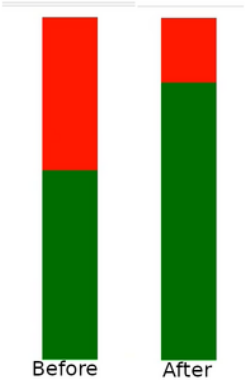

Figure 2: Here we see a before and after explanation screenshot of the fastcups interface, where it goes from bad to better, after deeper explanation of a topic. Some red remains, interestingly, given how well students did on the recap quiz, which may reflect other factors or anxieties that are affecting their in-class feelings. However this is a "foreign language" they need to learn which requires significant amounts of repetition of every phrase and grammar before they comprehend.

Thus letting students self report their feelings of the class provides significantly better data than making a guess based off of their appearance!

Effects on students

Students were much more able to communicate their feelings back to me as a teacher, and the addition of the anonymity allows them to be more honest in their reviewing [Zant and Kray, 2014]. When the teacher view of the tool was on screen, students could see the responses of their classmates (in aggregate) and feel more comfortable in not being the only person feeling behind or needing more explanation.

As a teacher I was really pleased with the effect of the tool (see fig. 3); I could

1. Ask students "please update fast cups, how do you feel?"
2. See the result trend towards yellow and red
3. Then slow down and re-explain the topic
4. Ask again
5. And see more green.

This really quick interaction turnaround time produced a more efficient classroom (e.g. timepoints 39:00 - 41:38 / 2:23:55 - 2:29:18) I'm not waiting for students to unmute and respond in front of their classmates, they're able to tell me instantaneously, with no loss of privacy. And for me as a teacher, that instantaneous feedback is

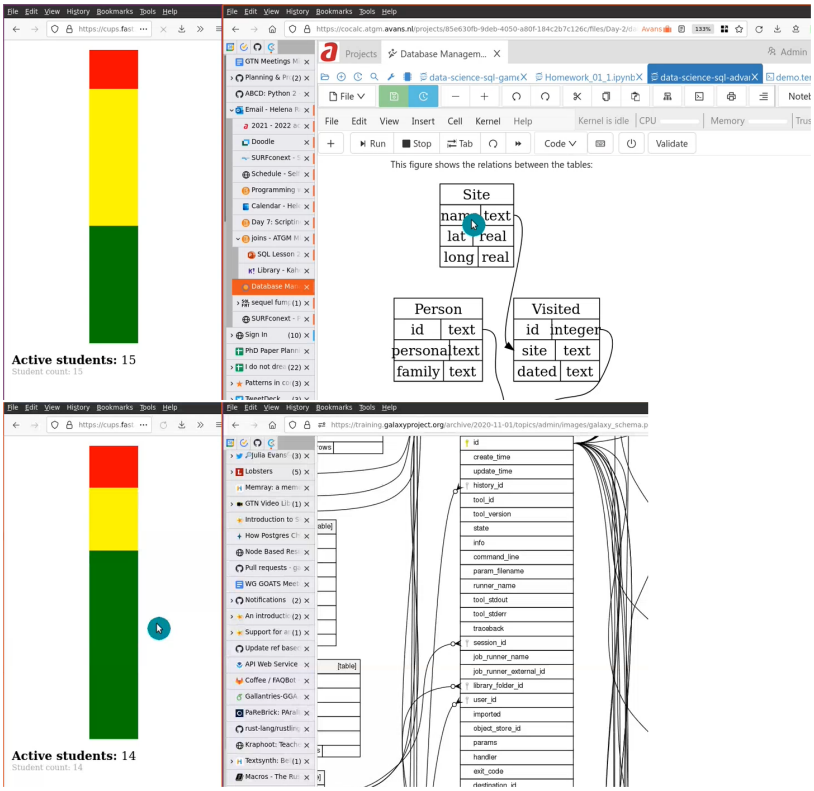

Figure 3: Another screenshot of fastcups, shown next to the lesson material, the above screenshot is "before" a deeper explanation is needed, and the below is "after" the explanation is given and we see a significant decrease in yellow responses as students increase comprehension. Unfortunately there is still some red, but as this is a "foreign language" class, students will likely need to complete the homework before they feel confident in themselves with the new constructs they've learned today.

invaluable, especially since it is provided in a way that does not disrupt the flow of the lesson.

Lessons Learned

If I am to continue in my preferred modality, and even if not (given inability to read faces with any accuracy, as a new teacher), I should absolutely be employing this tool consistently throughout my classes to get feedback from students on how they are experiencing the class. I think this gave students significantly more options for interaction throughout the lesson in ways that work for them, based on Assignment 8. Additionally given the context of the type of person attracted towards a computer science based curriculum and their learning preferences, versus say the type in a business course, this methodology meshes well with the students.

Tips & Tops & the future

Top: Seeing student responses go from yellow and red to green (and some yellow) following an explanation was a great feeling, and gave me significant confidence in the methodology, that I could react so quickly to their feelings. Additionally having the student responses on screen occasionally, combined with anonymity, perhaps gave them more confidence in answering that they were having difficulties. It is common across teaching, I believe, for students to feel alone in being

slow or behind, when in fact everyone is, and it only becomes apparent during discussions.

Tip: During the course I developed a concern for low response rate, that perhaps students were not actively updating their "cups", and in a future revision I will explore implementing a "clear" function, to allow deleting their responses and then requesting them freshly, to make sure the majority of students are responding. Additionally I should make sure that the interface is always visible so I can appear to be more responsive to it. I was watching my phone with the interface, but, this may not have been apparent to students.

Assessor Feedback Discussion

I specifically wish to address the following, because I worry the assessor is not up to date on the equity and inclusion issues present

> *Feedback: But if you give students the freedom to hide behind a closed camera, it can have negative consequences for your students and for you. It's not good for their bonding with you and their peers. And it's not good for their engagement in class. And it offers you less insight into your students and therefore less feeling about whether what you do with it, does land with them.*

The potentially resulting cyberbullying, racism, and ableism, lead me to consciously make different choices, which I discuss below. I understand the reason for the criticism, but disagree with the solution, **I think we can find alternatives that are better, like my proposed fastcups.**

Hypothetical

Consider first the *Gedankenexperiment*:

> If seeing students is of such paramount importance, then we should **immediately** fire blind and visually impaired teachers, as they cannot be effective as teachers.

This I think is obviously the wrong answer, and demands that we search for alternative, inclusive solutions, as blind and visually impaired teachers (or those deciding not to demand cameras) can absolutely still be effective [Afzal and Rafiq, 2021]!

Home Invasion

Requiring that cameras be on risks intruding into the personal lives of students' homes (or lack thereof), putting learners education second and their personal lives front and center, on display for their fellow students. This risks highlighting disparities between students. Many students do not have the luxury of a "blank" space they can show, and the constantly visible cameras may be distracting or even voyeuristic [Reed, 2020, Ng, 2020] thus intruding into their personal lives and opening the doors for cyberbullying from their peers.

I personally have a pride flag hanging in one room, this feels like unnecessary oversharing of my personal life with students. However, *because* I am *privileged*, and between my partner and I, we have a flat with multiple rooms, I am able to find a less distracting and personal background from which to teach. This does not necessarily apply to students who may not have much choice or time to hide their personality before a teacher demands cameras.

Virtual backgrounds are a common retort here, but they are inconsistent, and not available across all platforms. Until recently, Zoom required chromakeying (a greenscreen, with extra cost) to do virtual backgrounds on Linux[1], and teams likewise does not support it on all platforms.

[1] in bioinformatics, many students use Linux instead of Windows or Apple's OSX, as it is more appropriate.

The simplest, most effective solution to this issue, while the ongoing pandemic forces us online, is to simply not demand it, and seek out alternative solutions. In the future we'll all be able to return to classrooms, and this issue will not be present!

Neurodiversity

Some, neurodiverse (ND) students may not learn best while sitting still, and be distracted by the social pressure to, or may not want classmates to know they prefer to move around while following the lecture[Duncan, 2021], compared with their neurotypical (NT) peers.

Anecdotally, in my personal experiences within Bioinformatics (which I teach) and Computer Science (a closely affiliated discipline), the incidence rates of ND students is significantly higher than in other fields, as the environments and jobs available often are very suited to folks whose brains work differently (but just as well!) as the rest of us.

Why won't they?

Students worry actively about things in their home, siblings, pets, or their appearance being distracting .

[Castelli and Sarvary, 2021] surveyed students and found the following reasons

- I was concerned about my appearance [A, B]
- I was concerned about other people being seen behind me [A]
- I was concerned about my physical location being seen behind me [A, B]
- I was concerned about distracting my classmates

Where A are things that affect under represented minorities more than Cis/Het-White-Male students, and B are items that affect female students more than male students. None of these are desirable feelings that students should experience, and this concern is easily removed by not requiring cameras.

What can we really tell?

When even teens are able to subvert the camera [Cole, 2020] and use looped videos á la heist movies, the value of obsessing over this is very suspect. It's not our job to police their behaviour, and even if we try to, what can we really tell?

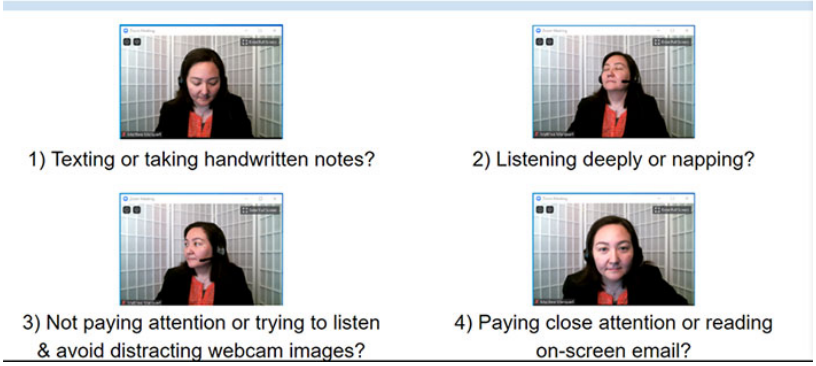

Figure 4: Example from [Marquart and Russel, 2021] highlighting the sheer difficulty in reading a student's body language

NT students and ND students may have a different appearance when focusing as shown in the figure above, ND students may sometimes look off into nowhere while listening hard, to avoid distraction. To an NT teacher this looks like being ignored and can lead to negative interactions [Clouder et al., 2020]. Determining what the student is doing from their appearance is not an activity I wish to dedicate my time to, discerning the body language of students and making uneducated guesses at what their behaviour represents. I'd love for them to pay attention, but they are adults, they will make their own choices.

Conclusion

I think it's an extremely worthy goal, to understand how students feel, but cameras are not the only way, nor the best given the potential ethics, equity, and inclusion issues present in such a request.

For adults living on their own (e.g. this course), it's a more reasonable request. Adults working from home can be expected to have a "home office" or working space fit for camera. However for students who are often living with family, I believe this is an unreasonable demand made by far too many teachers, without considering the downsides, nor what can actually be gained via this methodology or others.

> The most dangerous phrase in the language is, "We've always done it this way." – *Grace Hopper*

References

Ayesha Afzal and Shahid Rafiq. Sighted students' perceptions about the effectiveness of university teachers with visual impairment: A case study. *Journal of Inclusive Education*, 5(1):131–148, 2021.

Frank R. Castelli and Mark A. Sarvary. Why students do not turn on their video cameras during online classes and an equitable and inclusive plan to encourage them to do so. *Ecology and Evolution*, 11 (8):3565–3576, 2021. DOI: https://doi.org/10.1002/ece3.7123. URL https://onlinelibrary.wiley.com/doi/abs/10.1002/ece3.7123.

Lynn Clouder, Mehmet Karakus, Alessia Cinotti, María Virginia Ferreyra, Genoveva Amador Fierros, and Patricia Rojo. Neurodiversity in higher education: a narrative synthesis. *High. Educ.*, 80(4):757–778, October 2020.

Samantha Cole. People are looping videos to fake paying attention in zoom meetings, Mar 2020. URL https://www.vice.com/en/article/7kzq5x/looping-videos-to-fake-paying-attention-in-zoom-meetings.

Sarah Duncan. In defense of the black zoom screen square, Dec 2021. URL https://monsteringmag.com/magazine/in-defense-of-the-black-zoom-screen-square.

Matthea Marquart and Roxanne Russel. Dear professors: Don't let student webcams trick you, 2021. URL https://er.educause.edu/blogs/2020/9/dear-professors-dont-let-student-webcams-trick-you.

Chiew Hong Ng. Communicative language teaching (clt) through synchronous online teaching in english language preservice teacher education. *International Journal of TESOL Studies*, 2(2):62–73, 2020.

Matt Reed, May 2020. URL https://www.insidehighered.com/blogs/confessions-community-college-dean/should-showing-faces-be-mandatory.

Alex B. Van Zant and Laura J. Kray. "i can't lie to your face": Minimal face-to-face interaction promotes honesty. *Journal of Experimental Social Psychology*, 55:234–238, nov 2014. DOI: 10.1016/j.jesp.2014.07.014. URL https://doi.org/10.1016/j.jesp.2014.07.014.