Student Perceptions of Live-subtitles During In-person Lectures: A Pilot Study

Jaime Benjamin, Psychology Department, Lancaster University

Alice Rees, Psychology Department, Lancaster University

Emma Mills, Psychology Department, Lancaster University

Abstract

The use of subtitles is on the rise in media consumption, as is recommended as a means of increasing viewer engagement with social media. This pilot study investigates students' perceived distraction and usefulness of live-subtitles during in-person lectures, with particular attention to students with English as an additional language (EAL) and those with self-reported disabilities. The use of subtitles in in-person lectures builds on established findings regarding the benefits of subtitles in asynchronous and online learning contexts. Data were collected from students in two first-year psychology modules (n = 105). Students generally do not find subtitles distracting and perceive them as useful. Qualitative responses suggest that subtitles support comprehension, note-taking, and focus. These preliminary findings suggest that the use of live subtitles as a low-cost, inclusive measure during in-person lectures does not harm, and may improve, student experience in higher education. Reflections are offered for other lectures to consider the use of live subtitles in in-person lectures.

Introduction

Inclusive learning practices in education have accelerated, driven by accessibility imperatives and technological advances. The United Nations' Disability Inclusive Communications Guidelines (2022) emphasise that audio information should be augmented with texts and interpreters as part of accessible communication strategies and their sustainability goals. While the use of subtitles in asynchronous lectures and online media is well documented, such as showing subtitles improve accessibility and comprehension for non-native speakers (Caimi, 2006; Liao et al., 2020; Van Gauwbergen et al., 2024) and benefit students with diverse learning needs (Robert et al., 2021; Mayer, 2020). However, research on subtitles during in-person lectures is limited

Lancaster University has over 3,000 students who are non-native speakers of English [as of 2025]; many students also live with a disability. Accordingly, Lancaster requires departments to provide subtitles on pre-recorded teaching lectures as best practice for inclusive learning. Therefore, to extend the inclusive practice we introduced the use of live subtitling during in person 1st year introductory psychology lectures, where approximately 1 in 4 students can be considered to have a disability and is one of the largest modules on campus. These modules are taken by psychology and non-psychology students.

This pilot-study examines the students' perception of live-subtitles during in-person lectures. It is not currently clear whether students perceive a benefit to learning from the use of live-subtitles during in-person lectures. Additionally, it is possible that as the subtitles are generated in real time, streaming across the projection, this may be distracting to students and contain errors. To address potential harms and benefits of live subtitles, the present study seeks to capture students' perceptions of distraction and usefulness of live-subtitles during in-person lectures.

Method

Participants

All students were enrolled in two first-year psychology modules (Introduction to Cognitive and Social Psychology). Over the span of the study, 105 participants completed the responses analysed in this paper. Of these 105 responses, 28% came from students with EAL. Twenty-eight percent identified themselves as having a disability, including ADHD, anxiety, autism, depression, dyslexia, migraines, and sensory issues.

Design and Procedure

The two modules were delivered across a 10-week term, in consecutive blocks of four weeks of teaching followed by one consolidation week. Students were asked to complete the same question across four time points; week 1 and 3 of module one, and week 2 and 4 of module

two. This allowed for first and last impressions, as well as mid-point reflections in the first lecture of the weeks, students were presented with the live subtitling and asked to complete a survey about their perceptions of whether the subtitles were useful and distraction. Students also completed items for their student ID, major degree subject, English language status, and disability status.

At every data collection point, students were asked to rate on a 7-point scale the perceived distractibility and usefulness of subtitles, for learning in asynchronous and in-person lectures, by way of 7-point Likert scales. One open-ended item invited students to share detailed experiences, perceived advantages, and potential drawbacks of their experience of subtitles in their learning.

Results

Here, we present students' perceptions of distraction and usefulness of subtitles across asynchronous and in-person lectures. Since the University considers providing subtitles for asynchronous lectures as a matter of best practice and policy, observing no difference between the two formats may suggest that subtitles could migrate to in-person lectures. Mindful of distinct populations in the student cohort, we next present how perceptions of distraction and usefulness across students grouped by language status (EAL / Non-EAL) and self-reported disability status for in-person lectures only. Observing a low distraction-high benefit response from the EAL and students with disability may suggest that live subtitles increase inclusivity, particularly when coupled with a low-distraction response from the general student groups, suggesting live subtitles could be introduced with little detriment. Finally, we give a very brief overview of the qualitative comments.

Distraction and Usefulness Across Asynchronous and In-person Lectures

Figure 2 shows the percentage of students' ratings for perceived distraction and usefulness across asynchronous (A) and in-person or live (L) lectures. Preliminary data suggests that, across both asynchronous and live contexts, students generally rate subtitles as not distracting and useful.

Figure 2.

Percentages of Students Choosing Ratings of Distractibility and Usefulness of Subtitles Across Asynchronous (top row) and Live (bottom row) Lectures
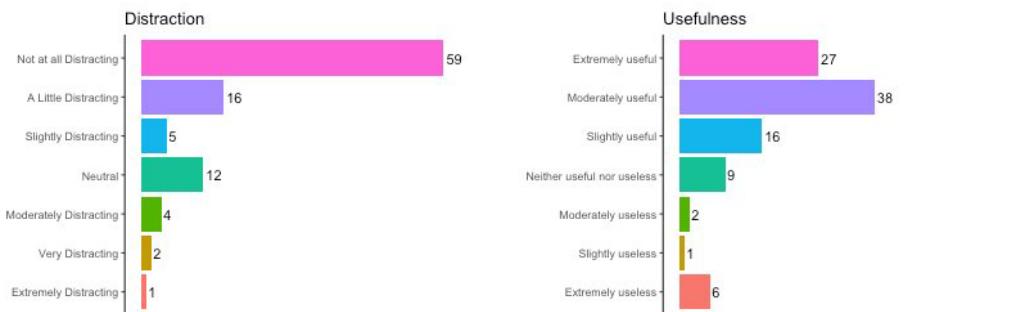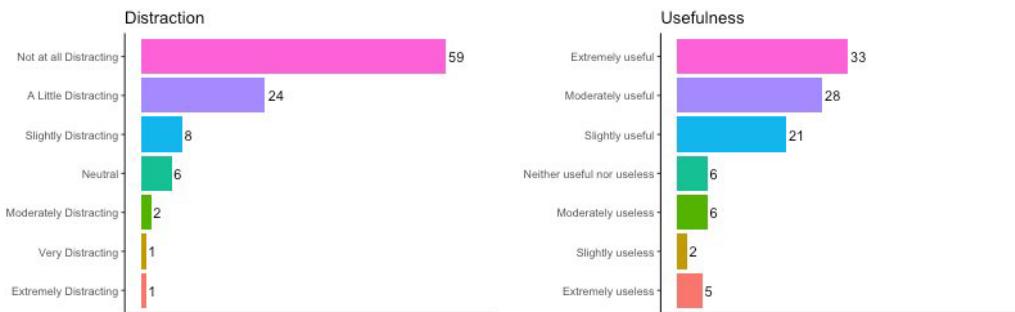
EAL Students

For in-person lectures, 73% of students with EAL rated their perception of live-subtitles as "not at all distracting". Eighty-six percent responded that the live subtitles had some level of "usefulness", in comparison to ~13% who responded in the "useless" range (see Figure 3).

Figure 3.

Ratings of Distractibility and Usefulness of Subtitles Across Live Lectures Split by English Language Status of the Student.
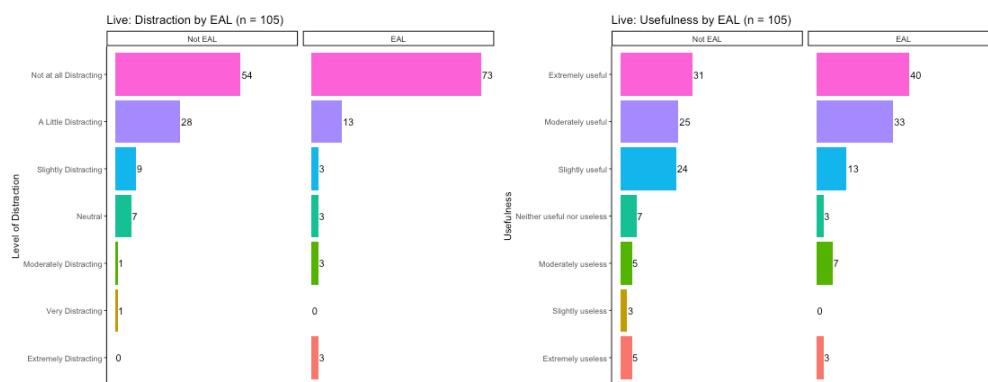
Students with Disabilities

For in-person lectures (see Figure 4), the level of students with disabilities that reported live-subtitles were not distracting was 48%, however there was still a two-thirds majority of students responding that the subtitles were useful to some degree.

Figure 4.

Ratings of Distractibility and Usefulness of Subtitles Across Live Lectures Split by Disability Status of the Student.
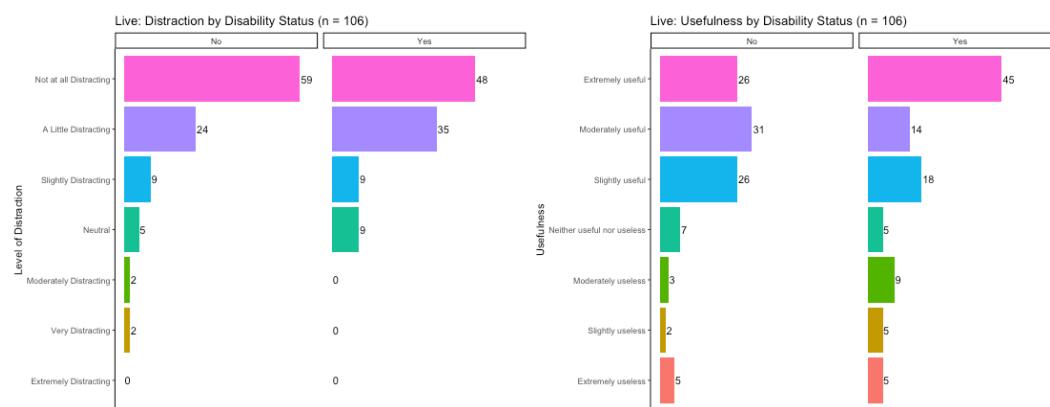
Qualitative Comments: Highlights

When students were provided with an opportunity to give open-ended responses, 63.5% of comments indicated that the use of live subtitles was particularly useful for information processing and aiding comprehension of lecture material. In particular, students find the lag between speech and subtitles particularly helpful if they had misheard or did not catch what was said (45% of comments). 26% of comments noted that subtitles allowed them to focus or pay attention better to the lectures. . Students often referred to their EAL status or individual differences within the comments, with 37% of comments explicitly noting the accessibility that the subtitles provided. Equally, some students stated they did not find subtitles useful, but recognised others might find them useful and did not find them distracting for themselves.

Discussion

This pilot-study set out to capture students' perceptions of distractibility and usefulness of live-subtitles during in-person lectures. Results demonstrated students perceived subtitles as generally useful and not distracting for learning. The perceived usefulness was notably high for EAL students and students who reported living with a disability. Early conclusions can be drawn that having subtitles can potentially increase the accessibility and inclusivity of in-person lectures as students perceive little harm and some benefit for their learning experiences at least in the context of a first-year psychology module. Qualitative comments particularly highlighted the utility of subtitles for those with disabilities and EAL, however, limited conclusions can be drawn due to the sparse data.

This finding is consistent with prior research for the use of subtitles in asynchronous contexts (e.g. Caimi, 2006; Liao et al., 2020; Robert et al., 2021). As such, we propose that using live-subtitles

during in-person lectures could be a low-cost intervention to support a wide range of students' different accessibility needs. Further, student qualitative comments around information processing may represent anecdotal evidence for a dual-channel processing advantage (Mayer, 2020), where visual and auditory inputs complement each other, leading to reduced reliance on memory for immediate comprehension. This is a potential avenue for future studies to explore. However, the findings also suggest that the perceived benefit is not universal for all students. Therefore, framing our results "no harm and potential benefit" may be most accurate at this stage.

There are several limitations to the study which impacts the findings and implications for lectures' practice. For example, many students entered their ID numbers incorrectly which reduced the amount of usable data further restricting our ability to test if usefulness and distractibility change over time. In terms of further impact, as we only collected data during introductory psychology modules, the perceived distractibility and usefulness of live-subtitles may differ across subjects, as a function of subject-specific language and a student cohort within a specific degree programme. Future studies need to be built to incorporate a variety of departments and modules to be able to test further applications.

Conclusion

The findings from this pilot-study indicate that the use of live-subtitles during in-person lectures is generally regarded as not distracting and useful by the student sample. It appears to be a low-cost intervention for increasing the accessibility of learning. Further, its use highlights a means of engaging in inclusive practices as not all students may have diagnosis at the point of entering university. Creating an accessible and inclusive learning environment can only improve student engagement and experience. It is difficult to recommend the use of live subtitles as best practice at this time due to the limited evidence base. While students may perceive no harm and a potential benefit, it is unclear if this benefit actually exists for students learning. In the future, we will be developing further studies to examine the impact of live subtitles on students learning. Thus, we call upon other lecturers to try it for themselves and their own teaching contexts. This paper acts as a call to action for other lectures to contact us and help build our evidence base.

References

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