

# Are they paying attention, or are they shoe-shopping? Evidence from online learning

**Jo Smith, University of Auckland**  
**Karen Schreder, California State University, Chico and Lorna Porter, WestEd**

## Introduction

Online learning platforms offer flexibility in the delivery of instruction at all levels of education. In response to the coronavirus pandemic, many schools worldwide made an abrupt transition to teaching online as governments instituted stay-at-home measures.

Prior to the Covid-19 pandemic, research found that techniques to monitor and motivate students in face to face classrooms do not necessarily translate to similar levels of attentiveness in online learners. Barriers to online attentiveness can include the technology capabilities of the student and the instructor, the length of the lecture or class, and how the course content lends itself to an online format. Lack of teacher training and experience in teaching strategies specific to online learners can also negatively impact student engagement and attentiveness.

In light of the lingering Covid-19 pandemic, distance learning has definite benefits for ensuring teaching and learning can continue. Understanding the impact of how instructors choose to engage with various online delivery formats to maximise attentiveness is important for engagement in learning.

## Key Contributions

- Findings help inform how to tailor the format and delivery of courses to maximise attentiveness and overall learning.
- There are clear considerations in online course delivery in terms of length and synchronicity that contribute to engagement levels.
- A mix of in-person and online students contributes to lower engagement for those online.
- Offering a mix of asynchronous self-paced learning and synchronous discussion and small group time increases student attentiveness and engagement with course material.
- Online classes can be broken up into 30 minute segments that vary to increase attentiveness. For example, a lecture followed by partner work or group discussions has greater attentiveness than lecture-only classes.



## Aims

This research compares formats of online course delivery to measure the difference in students' attentiveness and the factors accounting for those differences. The study compared the average attentiveness of students when classes are delivered in a hybrid format or where all students are online.

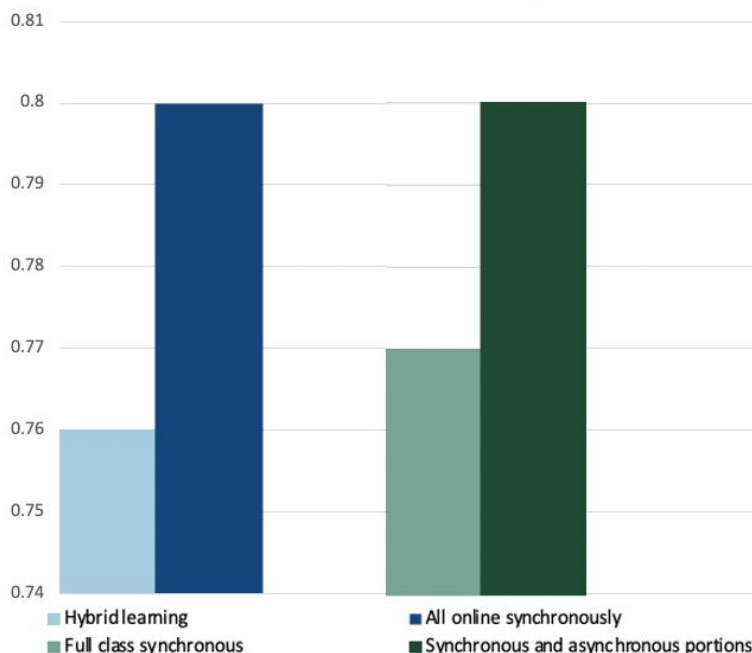
The average level of attentiveness between courses delivered with an asynchronous pre-recorded portion and those delivered entirely synchronously were compared, along with differences in engagement between various class lengths. The possible factors accounting for these differences were also analysed using interviews with students.

## Findings

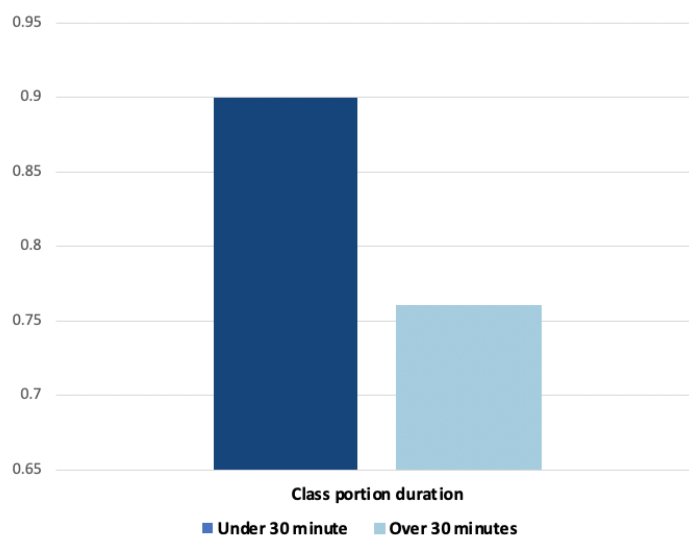
In general, synchronous online classes, with class segments of 30 minutes or under, generated the highest attentiveness scores.

1. Analysis showed that online courses where **all students and the instructor are online synchronously had slightly higher average attentiveness** than hybrid format courses where some students are physically in the classroom and some are online. In the hybrid format, participants described feeling isolated from the instructor who might be focusing on the in-person attendees.
2. For classes combining synchronous and asynchronous class portions (pre-recorded portions), **attentiveness was slightly higher during the synchronous portion** of the class compared to courses with a fully synchronous online format. Participants reported that they often **multi-tasked during classes that did not have an asynchronous portion** as fully synchronous classes required them to be online for three hours. **Participants reported a preference for the combination of asynchronous and synchronous delivery** because it allowed them to watch the pre-recorded portion at their own pace and focus on more in-depth and pertinent discussions in the synchronous online session.
3. Average **attentiveness was lower for class segments of over 30 minutes** than class segments under 30 minutes. Participants reported that attending class online has the additional challenge of maintaining engagement in isolation, whereas group discussions or small group work maintained greater engagement. If the session was not broken up by this kind of work and the lecture was the only content, students were unlikely to remain focused for the whole 3 hour session.

Attentiveness scores for class delivery differences



Attentiveness scores for class duration differences



## Key Policy Implications

- Research findings can contribute toward clear guidelines, frameworks and training for course instructors to adapt to new and evolving teaching methods while maintaining the overall quality of learning.
- MoE and TEC policies about online learning format and conditions can increase student engagement to enhance learning.
- Further research towards online course delivery is crucial to understanding what increases attentiveness and engagement as courses continue to conduct distance, online and hybrid learning formats.

## To find out more about this research, please visit:

[International Journal of Multidisciplinary Perspectives in Higher Education \(Vol. 5, Issue 1\)](#)

## Or contact:

smith.joanna@auckland.ac.nz

*Adapted with assistance from Holly Willson and Suzanne Woodward, PPI*