

# Active Learning in Asynchronous Introductory Linguistics: Successes and challenges

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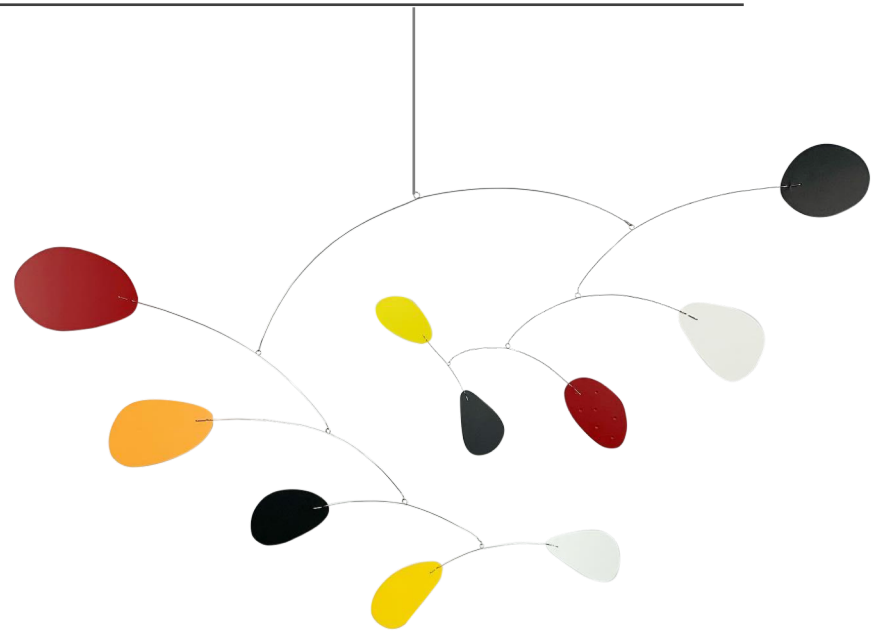
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# Pedagogical Challenge

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For Spring and Fall 2020 **remote learning** versions of my introductory linguistics course, I wanted to create an innovative and engaging asynchronous **syntax unit** in which:

- unit concepts were **scaffolded** (Caruana, 2012; Jumaat & Tasir, 2014; Wiggins & McTighe, 2005)
- students **engaged actively** in the learning process (Bean, 2011; Felder & Brent, 2009)
- students received incremental **formative feedback** to gauge their progress (Angelo & Cross, 1993)






# The Course

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**Introduction to the Study of Language** is a 100-level linguistics course that provides a broad survey of various subfields of linguistics for non-majors. It fulfills a General Education requirement in Social & Historical Studies. Enrollment is capped at 120 but is usually about half that.

**In a typical (face-to-face (f2f)) semester**, all students gather for 50-minute interactive lectures with the faculty instructor on Mondays and Wednesdays and then meet in smaller (max: 20-student) 50-minute discussion sections with a graduate teaching assistant on Fridays.

In Spring 2020, the course moved to an emergency remote format at the beginning of the syntax unit. In Fall 2020, the entire course was remote. **In remote semesters**, learning was flipped: students were expected to engage with lecture content asynchronously during the week. In Fall 2020, students also met in 50-minute synchronous discussion sections on Fridays for review and problem solving.





# Syntax Unit

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In the syntax unit of this course, students:

- learn the relationship between phrase structure rules and grammaticality
- use phrase structure rules to draw syntactic trees
- adjust the phrase structure rules in the face of new data

This unit extends over 2 weeks. In the f2f version of the course, the instructor introduces relevant concepts and skills during **lectures** and creates opportunities for students to try out skills on their own before the answers are demonstrated. During **discussion sections**, teaching assistants review concepts and skills, introduce new phrase structure rules, and provide formative feedback as needed to students as they practice tree drawing.

The unit ends with a **homework assignment** that provides a summative assessment of learning.





# Online Syntax Module

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For the remote learning versions of the course, I created an asynchronous syntax module in our LMS (Canvas) that consisted of 7 brief **videos** (55 minutes total) that introduced syntactic concepts and skills interleaved with 5 low-stakes **quizzes** that asked students to submit photos of trees they drew. Progress through the module was strictly gated: students had to watch a video to gain access to the associated quiz and earn some minimum score on that quiz to gain access to the next video.

I hand-graded each quiz\* within a few hours of submission and provided students with **individualized feedback**. Students could retake quizzes until they achieved the threshold score. At the end of each of the two weeks of the unit, I removed the gating restrictions from that week's videos to allow students who hadn't completed the quizzes to access the materials.

As in f2f semesters, teaching assistants reviewed concepts and skills in synchronous **discussion sections**, introduced new phrase structure rules, and provided additional formative feedback.

The unit ended with the same summative **homework assignment** used in f2f semesters.

\* less frantically in Fall 2020 than in Spring 2020, with some tweaks to submission deadlines





# Key differences between f2f and online units


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## **Flipped learning:**

- Videos: Students were responsible for engaging with asynchronous learning materials outside of class meetings.
- Quizzes: Students practiced tree drawing on their own before meeting for discussion sections.

**Active engagement:** Students were required to actively engage with the material (by watching videos and taking quizzes) to progress through the module.

**Formative feedback:** Instructor feedback on quizzes should provide students with incremental information about their progress.






# Formative successes

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## **Active Engagement**

- All but one student attempted the online quizzes. More than 90% attempted at least three; 68% attempted all five.

## **Formative Feedback**

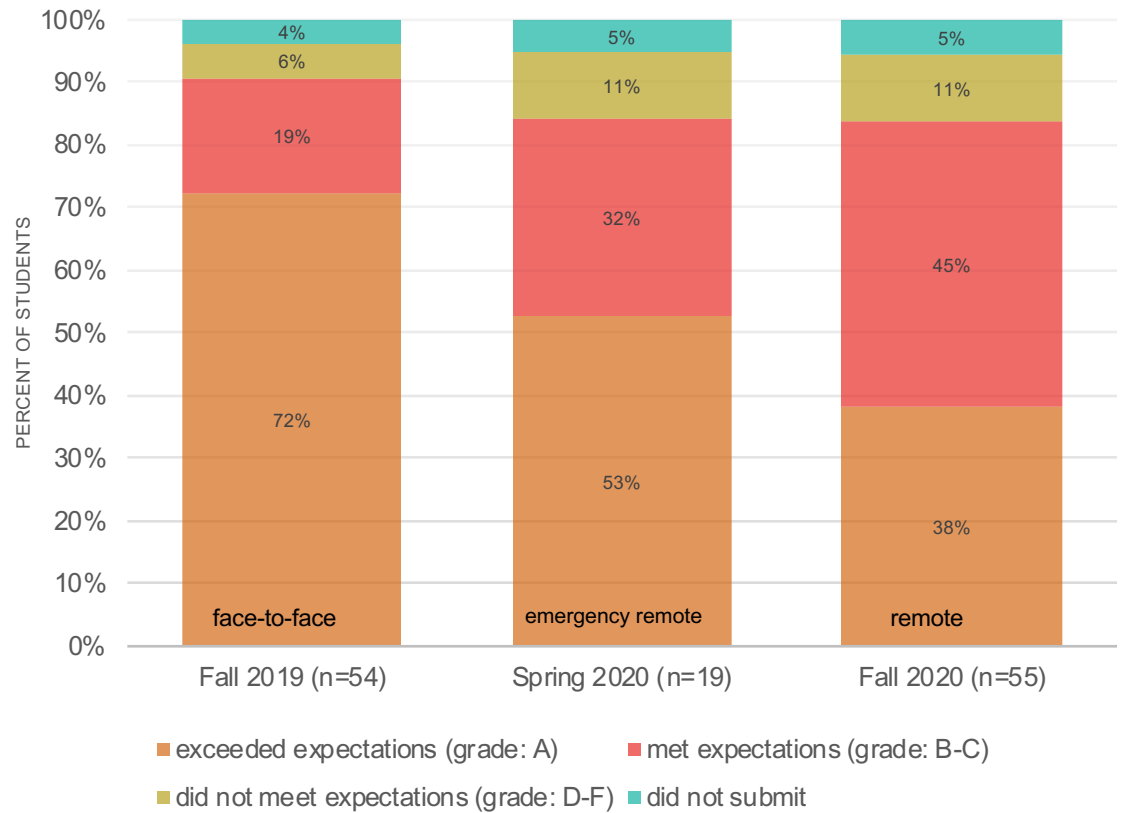
- Through assessment of quizzes, instructors provided more equitable and timely individual feedback than in f2f semesters.
  - Attendance in office hours increased over the course of the online module, as students sought out support while engaging in progressively more complex problem solving.
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# Summative failure

**Student performance** on the syntax unit homework **was weaker** in remote semesters.

HW grades did not correlate with engagement in the syntax module, but this downward trend was consistent with overall course grades across these semesters.

PERFORMANCE ON SYNTAX HOMEWORK





# Student reflection on online learning

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“Taking this course online has impacted my learning experience, both positively and negatively, this semester. I **enjoyed the flexibility** to complete the assignments at times that worked for my schedule as well as **being able to review the materials** multiple times if needed to understand the concepts. However, I did not feel like I had the same level of in depth understanding that I would if I had taken this class in person. I **struggled with the feedback** component of the homework assignments and some of the unit quizzes, especially during the syntax unit ... I think that had I taken this class in person, I would have been more engaged ... and performed better ... due to a more thorough understanding that comes from **participating and asking questions on the spot** in a classroom. **Technological difficulties** did make some components of this course more difficult and the increased flexibility in completing assignments definitely was a test for my **time management** skills at times.”

- a student in the Fall 2020 course

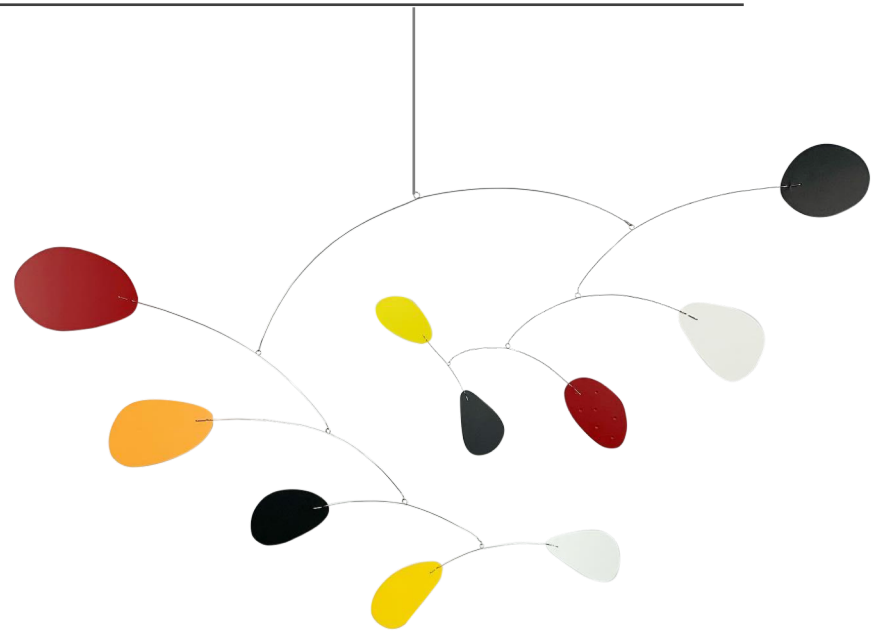


# Final Thoughts

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Design and implementation of this syntax module met pedagogical goals, but did not result in the level of student success seen in f2f semesters.

Student success in remote learning situations requires careful attention to **self-regulated learning** (Nilson, 2013) and **communication strategies** that may differ from demands of f2f courses.



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