

A study of student perceptions of office hours

Lake Ritter*, Jennifer Vandebussche, Christina Scherrer, and Jessica Whipple

Kennesaw State University

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Faculty-Student Interaction

Faculty-Student Interaction is generally associated with positive student outcomes such as

- motivation to learn,
- retention, and progression.

Of course there are many types of *Faculty-Student Interactions* from casual encounters between classes, to intensive mentoring. Research has been conducted to study such interactions in various contexts and using different names such as

- out-of-office communication
- faculty-student interaction
- extra-class communication

Motivation

We studied a program of guided remediation for students in Calculus 1 which included a **requirement**¹ of office hour attendance². This raised some questions for us, in particular

- Was this requirement really a beneficial part of the program?
- What did these students think about *office hours*, and was this requirement having an impact on their thinking?

¹The requirement was limited to students who opted into a program that would allow them to retake an exam and potentially raise their grade.

²See Ritter, Vandebussche and Scherrer, "An incentivized early remediation program in Calculus I", *Intl Journal of Math Education*, April 2018.

Study Questions

Limited research has been done on **classical office hours** in particular.

We posed the following questions:

- 1 How do students entering into an introductory course like Calculus I **understand office hours** (how they are used, their value, their academic role) and how do those perceptions **change over the semester**?
- 2 What impact does **office hour attendance**, both required and elective, have on student perceptions of office hours?
- 3 Are there **demographic factors**, such as gender or race, that affect the answers to these first two questions?

Some Context

About Kennesaw State University:

- A comprehensive university with over **35,000 students**
- Recently promoted to **Carnegie classification R2** under the reorganized classifications
- Many **nontraditional** students
- The Mathematics Department serves the university, especially the colleges of **Engineering, Computing, and Science and Mathematics.**
- Retention, progression, and graduation rates are **low**

Study Set-up

- Two instructors taught four sections each of Calculus 1
 - Two each in Fall 2016 and Spring 2017
 - 35 to 40 students per section
- In one section for each instructor: students performing poorly on early prerequisite exam were required to attend 2 hours of office hours in order to retake the exam
- Pre- and post-surveys were administered to all students (voluntary and anonymous)
- 167 surveys could be linked together

The Survey

- **Pre**-survey only:
 - demographic information such as race, gender, academic year, and major
- **Post**-survey only:
 - an estimate of the number of office hour visits for the term
- **Both** pre-and post-survey:
 - **Fifteen statements** about office hours with which students rated their agreement on a five-point Likert scale
 - A list of **five factors** that could contribute to office hour attendance that students were asked to rank in order of importance
 - **Free response questions** about student perceptions of office hours

The Data:

Likert Scale Statements

Responses: Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree

Four **categories** of statements:

① utility

- Example: I can benefit from attending office hours.

② logistics

- Example: Before attending office hours with an instructor, I should make an appointment.

③ social ramification

- Example: Attending office hours will give my instructor a good opinion of me.

④ student characteristic

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④ student characteristic

- Example: Students who make high grades usually attend office hours.

The Data:

Ranking Factors Affecting Attendance

Five factors that could contribute to office hour attendance that students were asked to rank in order of importance:

- **Convenience** of the days and times of the posted office hours
- The **approachability** of the instructor
- The extent to which the instructor provides useful **feedback**
- The availability of **extra hours** “by appointment”
- Proximity to an upcoming **event** such as an exam or a project due date

The Data:

Open-ended Questions

We coded responses to three free response questions.

- 1 Please list the activities that you believe instructors office hours are intended for.
- 2 Please list any expectations you believe your instructor has of you when you visit him or her during office hours.
- 3 Please list any expectations you have of your instructor when you visit him or her during office hours.

What we *didn't* find

- What impact does **office hour attendance**, both required and elective, have on student perceptions of office hours?
 - Students in required office hours sections had **no noticeable difference** in any area (perceptions, performance, amount of office hours use)
- Are there **demographic factors**, such as gender or race, that affect the answers to these first two questions?
 - No statistically significant difference in perceptions among any demographic groups (The sample size was probably too small.)

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Why don't required office hours help?

If the idea behind requiring students to attend office hours is to **get them in the door** to sell them on the usefulness of office hours, our results indicate that they don't need to be sold on the idea.

- In the pre-survey, **94%** of the students surveyed agreed with **"I can benefit from attending office hours."**
- Most of our students already think they are useful.
- Interesting side note: Only 74% agreed with the statement, "Office hours are for students like me."

Attending office hours changes student perceptions

We considered two subgroups of students for special comparative analysis:

- **Low OH attenders:** a group of 91 students who attended office hours at most two times during the semester (includes students who were in the required sections who only attended due to the requirement)
- **High OH attenders:** a group of 41 students who reported attending office hours at least six times during the semester.

Attending office hours changes student perceptions

Although office hours attendance *requirement* didn't impact student perceptions, *attending* office hours did. On the post-survey...

High OH attenders **agreed more**³ with the following statements:

- Office hours are a useful resource for help with course material.
- I can benefit from attending office hours.
- Office hours are for students like me.

(On pre-survey: No statistically significant difference between the two groups.)

³* p-value < .02

Attending office hours changes student perceptions

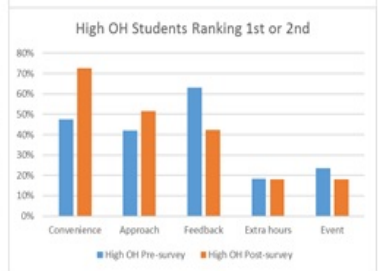
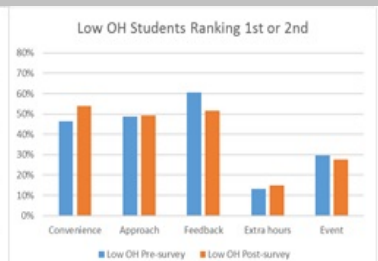
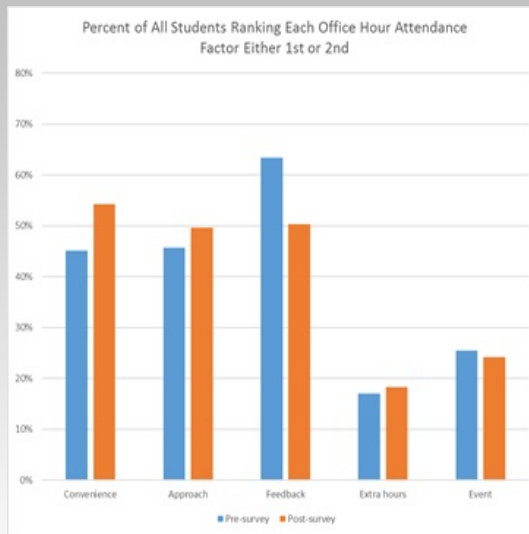
Although *requiring* attendance didn't impact student perceptions, *attending* did. On the post-survey...

Low OH attenders **agreed more** with the following statements:

- Before attending an office hours with an instructor, I should make an appointment.
- Office hours are intended for students at risk of making a low or failing grade.
- Students who pay attention in class shouldn't need to attend office hours.

(Again, on pre-survey: No statistically significant difference between the two groups.)

Ranking



Coded Data to Free Response

A few observations on the free response data

- 1 Please list the activities that you believe instructors office hours are intended for.
 - Over 94% percent of respondents mentioned **course content** help.
 - Other items that received some mention included academic counseling, one-on-one time, and administrative issues.
- 2 Please list any expectations you believe your instructor has of you when you visit him or her during office hours.
 - A major theme here was that students **come prepared**, have specific questions or work already attempted.
 - Student attitude or respectful behavior was also mentioned.
- 3 Please list any expectations you have of your instructor when you visit him or her during office hours.
 - The two main ideas here were ability to help and willingness to help

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A few take-aways

Discuss office hours with students. In particular, clarify your expectations.

- An interesting misconception among our students was that an appointment was needed to attend regular office hours.
- Do students need to have a question formulated before attending office hours?
- Is it necessary to consult other sources before using office hours?

A few take-aways

Students prefer conveniently scheduled hours over a “by appointment” option.

- If possible, it may help to poll students prior to setting office hour times for the semester.
- Even among those who attended regularly, the importance of convenience seemed to increase during the semester.

A few take-aways

The jury is still out on whether requiring students to come see you will have a positive impact.

- Interestingly, the students who made up our High OH attender group came almost equally from the required and non-required sections (20 and 21 students).
- Students seem to know that office hours are useful, but this knowledge alone is not motivation to participate.
- Actual attendance does seem to increase students' positive associations with office hours (including showing less concern about the quality of the feedback they'll receive).

Study Limitations

- Limitations in the sample
 - The sample size was small.
 - Perceptions are likely to vary across different disciplines, and different types of institutions.
- Limitations in the “required attendance” aspect of our study
 - Students could opt to keep their initial low score on the prerequisite exam.
 - Students in one section may have known the other section was required to attend.

Thank You!

Questions?

Want additional information?

Lake Ritter

lritter@kennesaw.edu