A study of student perceptions of office hours

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

Kennesaw State University

March 9, 2019
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 attendance\(^2\). 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?

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

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

iritter@kennesaw.edu
Kennesaw State University
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.
   - 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
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.
   - 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
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.
   - Example: Attending office hours will give my instructor a good opinion of me.

4. student characteristic
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
   - 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.)
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.)
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

Percent of All Students Ranking Each Office Hour Attendance Factor Either 1st or 2nd

Low OH Students Ranking 1st or 2nd

High OH Students Ranking 1st or 2nd
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
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*
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
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