

Assessment in the Classroom

Student & Self Evaluation

Caleb McWhorter & Jacob Moose

Syracuse University

What is Assessment?

“The action or an instance of making a judgment about something.”



<https://www.gbtps.org/assessment-schedules-and-results/>

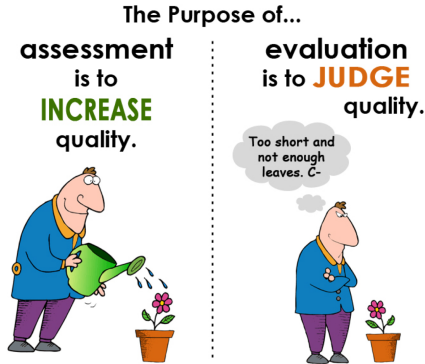
Importance of Assessment for TA's

- As TA's, we often need to find out what the students know
 - Do students know what they should?
 - Are students prepared for the next piece of information?
- Am I doing an effective job as an instructor?



Assessing Students

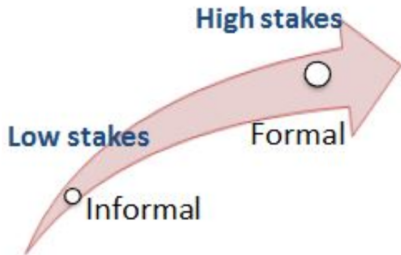
- Types of assessment
 - Informal vs. Formal – Which to use?
- Informal Assessment
 - Simple vs. Complex
- Formal Assessment
 - How to write a good question
- Other things to assess



<https://chme.nmsu.edu/files/2015/12/vs1.jpg>

Informal Assessment – The TA's Friend

- Typically ungraded – takes pressure off students
 - Easier to get quick, honest feedback



Simple Informal Assessments

- Verbal questioning
 - Asking students to apply knowledge to new situations
- Voting on simple questions
 - Raising hands/color coded cards
 - Verbally responding to multiple choice question

More Complex Informal Assessment

- Worksheets
 - Walk around during individual/group work
- Five-minute ungraded quizzes
 - Ask for students to supply and defend answers
 - Require one person from each group to come to the board and draw their answer
 - Collect anonymous quizzes for monitoring

Benefits of Informal Assessment

- Dynamic and flexible
- Allows measuring of progress
- Engages and challenges students

Tips on Informal Assessment

- Take your time and wait for responses!
 - “Wait times” of longer than three seconds have been implicated in increased frequency and detail of student responses.
- Using “clicker” questions or phone response websites (e.g Kahoot, Quizlet) can allow for anonymous feedback – may increase response rates

Formal Assessment

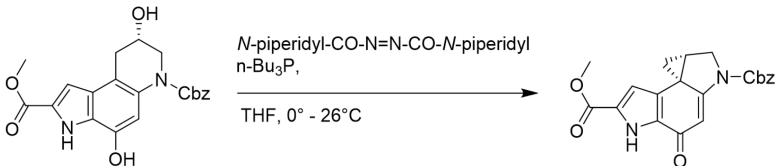
- Generally graded, formal assessment includes many of the standard classroom experiences
 - Exams
 - Papers
 - Homework
 - Projects
 - Quizzes

Making Questions for Formal Assessment

- Writing questions is easy! Writing *good* questions is a difficult task!
- Things to think about:
 - What do I want to ask?
 - How do I anticipate the students will answer this?
 - How do I plan on grading this?

Example of a “Bad” Question

- d. It was discovered that the duocarmycins owe their biological activity to the cyclopropanoindolinone core, which was constructed via the following reaction in **Scheme 2**:



Scheme 2

This is a named reaction as well, provide the name (Hint: This reaction more often uses DEAD). Draw a mechanism of the cyclopropyl ring formation, including an explanation for the identified stereochemistry.

Tips on Writing Effective Questions

- Ask yourself:
 - What do I want to ask?
 - What is important to me/the instructor?
 - Syllabus guided questions
 - Is this a formative question or a summative question?

Tips on Writing Effective Questions

- Ask yourself:
 - What do the students need to know to benefit from this class?
 - Why is this class important?

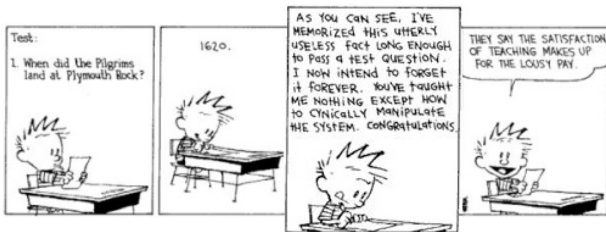
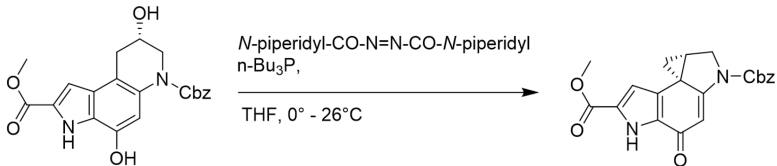


Image Credit- Bill Watterson

Example of a “Bad” Question

- d. It was discovered that the duocarmycins owe their biological activity to the cyclopropanoindolinone core, which was constructed via the following reaction in **Scheme 2**:



Scheme 2

This is a named reaction as well, provide the name (Hint: This reaction more often uses DEAD). Draw a mechanism of the cyclopropyl ring formation, including an explanation for the identified stereochemistry.

Tips on Writing Effective Questions

- Ask yourself:
- How do I anticipate the students will answer this?
 - Are there common issues that will prevent students from answering?
 - Is there a reason I am asking this question in particular?
 - Is there a better way to ask this question?

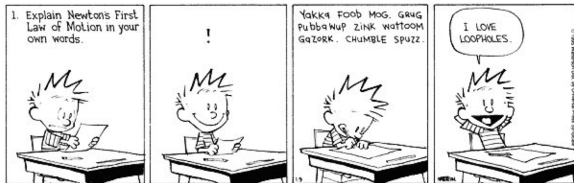
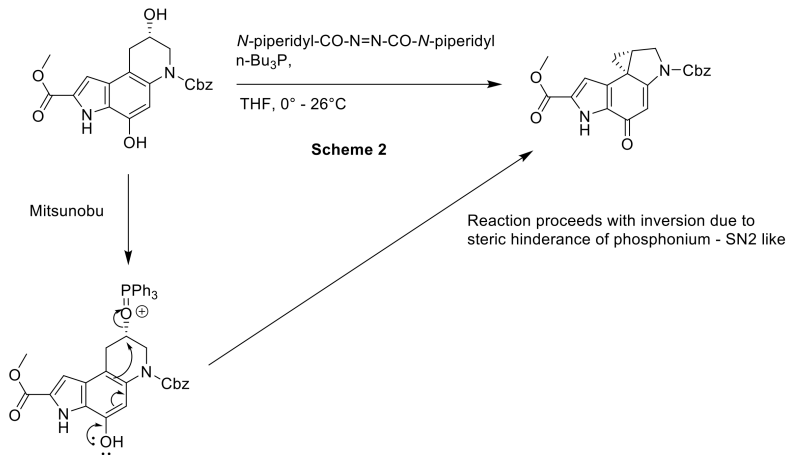
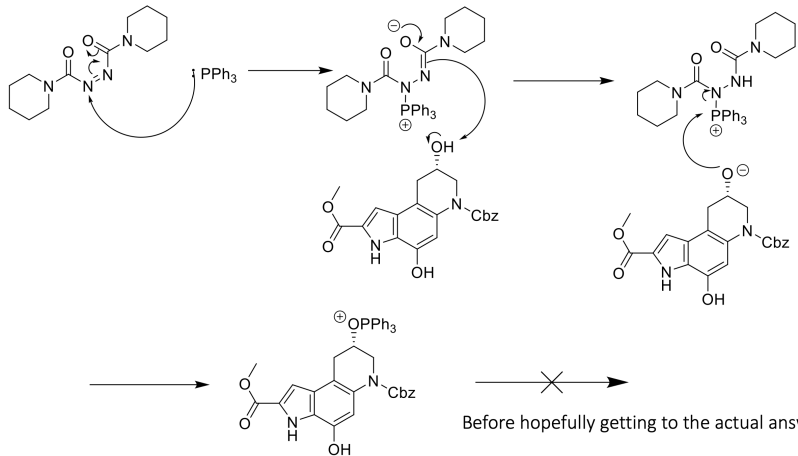


Image Credit- Bill Watterson

The short answer I wanted....

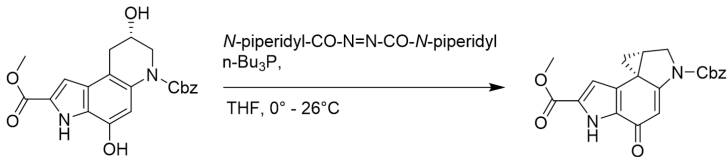


The long, difficult answer I got....



Revised Question

- d. It was discovered that the duocarmycins owe their biological activity to the cyclopropanoindolinone core, which was constructed via the following reaction in **Scheme 2**:



Scheme 2

This is a named reaction as well, provide the name (Hint: This reaction more often uses DEAD).

Draw the phosphonium intermediate for this reaction. Draw a mechanism of the cyclopropyl ring formation from the intermediate, including an explanation for the identified stereochemistry.

Tips on Writing Effective Questions

- Ask yourself:
 - How do I plan on grading this?
 - How much is this question worth?
 - Is the punishment for getting the question wrong appropriate for the level?
 - Is this a fair assessment of the student's abilities?
 - Will I be giving fair feedback when correcting?

Rubrics

- Reflect course goals
- Provide guidance – not too narrow, but not too vague
- Provide a fair, clear target for students

Other Things to Assess

- Student Engagement
- Attitude
- Gaps in Knowledge
- Mental Health



https://www.equipaje.fr/sites/default/files/images/guide_expatriation/self-assessment.jpg

Assessing Mental Health

- As TA's, many students will come to us when they are struggling with a class
 - Students may speak more freely with you than with an instructor
- Be observant for students who may be struggling with more than your class



http://neatoday.org/wp-content/uploads/2016/09/student_stress-e1473787999876.jpeg

Know Available Resources

- Be aware of the resources available to students
 - *Gently* suggest resources for students who may be struggling.
- Syracuse University Office of Student Assistance
 - <http://studentassistance.syr.edu/>
 - 315-443-4357
- Syracuse University Counseling Center
 - <http://counselingcenter.syr.edu/>
 - 315-443-4715

Assessing Mental Health — Taking a Pulse

Right now, the stress level I am feeling is...

None



Some



A Lot



Overwhelming



My level of anxiety about the upcoming exam is a...

Minimal

1



2



3



4



5



6



7



8



9



10



Maximal

Assessing Mental Health — Emphasize Early & Often

Address Mental Health at the beginning of the course. . .

. . . and again later. . .

. . . and again. . .

. . . and again. . .

. . . and again. . .

. . . and again. . .

. . . and at the course end.

Emphasize mental health in your syllabus—including resources!

Counseling Services

Your emotional and mental health is as important as your physical health. If at any point during the semester you feel overwhelmed with your class work, feel thoughts of depression or suicide, experience sexual assault or rape, have problems with substance abuse or relationship abuse, or have any other struggles with your mental health, please seek help! The Counseling Center Services at Syracuse University is a *free resource* offering assistance with any issue you might have—both individually and through group sessions. The Office of Student Assistance also provides students struggling with academic issues, personal growth, or general well-being with assistance. There is never any shame in seeking help. If you or someone you know is struggling with any of these issues, speak out!

Counseling Services: The Counseling Center Services website can be found at is located at 200 Walnut Place, Syracuse NY 13244-4350. They can be contacted at 315.443.4715, or visit their website at <http://counselingcenter.syr.edu/>.

Office of Student Assistance: The Office of Student Assistance can be found at 306 Steele Hall, Syracuse, NY 13244-4350. They can be contacted at 315.443.4357, or visit their website at <http://studentassistance.syr.edu/>.

LGBT[QIA]+ Center: If you or someone you know is having issues with gender or sexual identity, the LGBT[QIA]+ Center is there to create a safe space for those with marginalized genders and sexualities. The LGBT[QIA]+ Center website can be found at <http://lgbt.syr.edu/>, is located at 750 Ostrom Avenue, Syracuse, NY 13244-4350, and can be contacted at 315.443.3983. Know that my office is a safe space and should you prefer any gender specific pronoun/name, please be sure to make me aware!

Give out resource sheets.

... because who reads the syllabus...

Student Mental Health Resources

Your emotional and mental health is as important as your physical health. If at any point during the semester you feel overwhelmed with your class work, feel thoughts of depression or suicide, experience sexual assault or rape, have problems with substance abuse or relationship abuse, or have any other struggles with your mental health, **please seek help!** The Counseling Center Services at Syracuse University is a *free* resource offering assistance with any issue you might have—both individually and through group sessions. The Office of Student Assistance also provides students struggling with academic issues, personal growth, or general well-being with assistance. There is **never** any shame in seeking help. If you or someone you know is struggling with any of these issues, speak out!

Counseling Services: The Counseling Center Services website can be found at is located at 200 Walnut Place, Syracuse NY 13244-4350. They can be contacted at 315.443.4715, or visit their website at <http://counselingcenter.syr.edu/>.

Office of Student Assistance: The Office of Student Assistance can be found at 306 Steele Hall, Syracuse, NY 13244-4350. They can be contacted at 315.443.4357, or visit their website at <http://studentassistance.syr.edu/>.

LGBT[QIA] - Center: If you or someone you know is having issues with gender or sexual identity, the LGBT[QIA]+ Center is there to create a safe space for those with marginalized genders and sexualities. The LGBT[QIA]+ Center website can be found at <http://lgbt.syr.edu/>, is located at 750 Ostrom Avenue, Syracuse, NY 13244-4350, and can be contacted at 315.443.3983. Know that my office is a safe space and should you prefer any gender specific pronoun/name, please be sure to make me aware!

Department of Public Safety: If you are concerned about a students welfare, especially immediate welfare, please call the Department of Public Safety's (DPS) 24-hour line at 315.443.2224, or in case of emergency dial 911. DPS can be found at 130 College Place 005 Sims Hall, Syracuse, NY 13244-4350, or visit their website at <https://dps.syr.edu/>. DPS also provides escort services daily Monday through Friday should you want them. Call DPS to request this service. You can also access many of the DPS services through the LiveSafe Mobile App, see <https://dps.syr.edu/public-information/livesafe-mobile-app/> for further details.

Should you feel uncomfortable with any of the Syracuse University resources, know there are many hotlines available to you as well:

National Suicide Prevention Hotline: 1.800.273.8255

Trevor LGBT Suicide Hotline: 1.866.488.7386

Trans Lifeline Suicide Hotline: 1.877.565.8860

Rape, Sexual Assault, Abuse and Incest National Network (RAINN) 1.800.656.4673

National Domestic Violence Hotline: 1.800.799.7233

Veteran's Crisis Line: 1.800.273.8255

Gay and Lesbian National Hotline: 1.888.843.4564

CDC National STD Hotline: 1.800.227.8922

Substance and Mental Health Services Administration (SAMHSA): 1.800.662.4357

National Alliance on Mental Health Illness (NAMI): 1.800.950.6264

American Cancer Society: 1.800.227.2345

CDC National AIDS Hotline: 1.800.232.4636

Crisis Pregnancy Hotline: 1.800.712.4357

Eating Disorder Hotline: 1.800.931.2237

S.A.F.E. (Self Abuse Finally Ends): 1.800.366.8288

Sex Addicts Anonymous: 1.800.477.8191

National Help Line for Substance Abuse: 1.800.262.2463

Marijuana Anonymous: 1.800.766.6779

Cocaine Anonymous: 1.800.347.8998

Compulsive Gambling Hotline: 1.800.522.4700

GrifShare: 1.800.395.5755

Students Value Mental Health Focus

Questions/Comments:

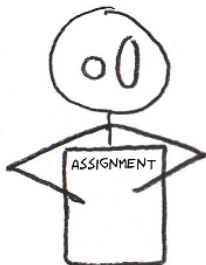
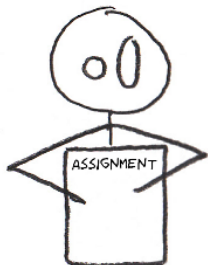
Really appreciated list of resources for people struggling with mental health, I feel like that's not discussed enough so Thanks!

Questions/Comments:

Interesting new methods
thank you for your honesty
in the beginning of class
& openness on the importance
of mental stability / abuse

Keep it simple.

HOW DO I ANSWER THIS !? | HOW DO I GRADE THIS !?



Guillaume, Viger. 17/11/2013. *Answering and Grading 21*. Retrieved from <https://blogs.mcgill.ca/gradlife/2013/11/17/grad-ee-er-uate-student/>

Decisions to Make: Short Term vs. Long Term

Short Term:

- Check new concepts.
- Provide immediate feedback.
- Encourage consistent studying.

Long Term:

- Test information retention.
- Evaluate growth and skill development.
- Reinforce class concepts and themes.

Decisions to Make: Graded vs. Ungraded

Graded:

- Informs students of performance.
- Higher pressure and more grading.

Ungraded:

- Honest answers.
- Less pressure and less grading.

Examples: 5-minute 'Quiz'

- Evaluate the following: $\int_0^{\pi} \sin^3 \theta \cos^4 \theta d\theta$
- Give an example of an action or behavior driven by tradition and compare with the value-rational action.
- Give a reason why philosophy should or should not be politically neutral.
- Define the difference between IV and DV with an example.
- List the stages of mitosis in order.

Self Assessment

Self Assessment



Student-Based



Self-Based

Student-Based Assessment

Course Evaluations . . . too little, too late.

Downsides:

- You do not control the questions.
- Certain items may not pertain to you.
- Students confuse professor and TA evaluations.
- Difficult to give lecture-by-lecture feedback.
- You do not see them until after the course.

You can use more frequent evaluations: <http://graduateschool.syr.edu/programs/ta-program/services-for-teaching-assistants/assessment/>

Comment Cards

Instant Helpful Feedback

Was this class helpful in learning the material?
Rate (0 to 10).

8

What was most helpful/understandable (if anything)?
doing multiple problems

What was least helpful/understandable (if anything)?
- not having atleast a 5min break
bc. I spaced out for a while
- sometimes you talked so fast

Didn't see this last time!
Questions/Comments:

Saying "how do I do this?"
Kind of makes me feel
stupid, since I don't ~~know~~
always know right away.

Was the lecture effective? Rate this lecture (0 to 10).

7.5

What was most helpful?
Going over what was going to be
What was least helpful? on the quiz
I feel like a hard raising
policy wouldn't hurt anybody

Questions/Comments:

STOP ERASING
SHIT TOO
SOON!

Questions/Comments:

I like the balance
between you teaching
and peer teaching. It
would be more efficient if
you gave us groups.

Students Interact with You

Questions/Comments:

You ALMOST
got that \$5 for wearing
that eyepatch. You missed
a GOLDEN opportunity w/ the pirate
theater today.

Questions/Comments:

Nah you
good
bruh

Was the lecture effective? Rate this lecture (0 to 10).

8

What was most helpful?

You're the best

What was least helpful?

Me being super hungover

Questions/Comments:

p.s. I think my grandma
is single and your
type ♡

Questions/Comments:

Don't tell you
"what they
asker your kids is wheel
Thomas the tank engine runs
out of steam, they put him
down. Don't run out of
steam." Words to live by

Questions/Comments:

What is the cube
root of π ? (No calculator)

Questions/Comments:

I have 152 digits of pi
memorized just because.

3.14159 26535 89793 2384 6264 3383 2795
0288 4197 16939 943 7510 5820 974 944 592 307
816 406 286 208 998 62 803 482 534 211 706 79
821 480 865 132 82 306 647 693 844 604 550 53 228 877

Student Approved!

Questions/Comments:

All TA's should
have cards like this.

Emphasizing Feedback Improves Evaluation

Longer, Better Evaluations

- Caleb is a wonderful teacher. He puts a great amount of time and effort into making his lesson plans and study materials for the course. Caleb's enthusiasm and high spirit make it a pleasure to learn from him. Every day, Caleb tries to bring up stories and examples that apply to the course material. This makes things far more interesting and easier to understand. Unfortunately, in such a short semester, it would be best if he can post study notes on his page, in case something in lecture is missed. More than that, many people are more comfortable learning by reading, such as myself. If lecture notes were provided, it would be incredibly helpful to many students taking the course.
- Caleb is an excellent instructor and was probably one of the best professors I have had for my first semester. It is also very evident that he is enthusiastic about the course material. One suggestion for Caleb would be to slow down the pace of the lecture. While I understand the course was extensive and lacked a recitation section, the speed at which the material was taught made comprehension difficult. Other than that, Caleb was a great teacher. He made himself readily available outside the classroom, was a fair grader and established a welcoming classroom environment. All of these were greatly appreciated.
- Caleb made this class passable for me, no joke. I had an instructor who rushed through the material and didn't really communicate or teach any of it well, and her tests were HARD. But in recitation, Caleb did a better job than my professor in not only explaining how to do the problems, but the math behind it (literally everyone in my class that I talked to wanted Caleb to be our actual professor). He was funny, relatable, and managed to make a subject like Calc 3 actually enjoyable. He graded our tests fairly and went above and beyond when it came to keeping in contact with us, having extra review sessions before all the exams, and things like that. I really appreciated how he gave us comment cards at the end of every recitation because even if I didn't have something to say at the end of every single class, it showed that he really cared if he was doing a good job at teaching us. The same thing goes for when he would give us the sheets at the end of each exam with info on the counseling center and things like that- again, it's not like every student in the room would be using it, but it showed that he really did care about us and it was about more than him having a teaching gig. The only complaint that I can think of is when he would sometimes go on tangents about the higher level math that he was learning and how he could use that for our problems- not that it was a total waste of time, but when I had a quiz in half an hour I was a little more interested in how to solve the problem in front of me than how he would solve it his way. Other than that, I'm praying that the math gods will perform some miracle and Caleb will teach my linear algebra course next semester (seriously, I'm desperate here). He was an awesome TA in every way and I seriously hope I can have him again.
- A superior TA overall. He injected intellectual humor in his teaching and his pre quiz reviews helped me improve my grades immensely. Despite the unholy hour of the Recitation, Caleb managed to maintain a level of energy that is truly exceptional and conducive to a healthy learning environment. The last lecture he did with us was one of the most amusing and informative experiences with mathematics that I have had here at SU. He is a strong representative of the quality of the Syracuse TA program in general and was a blessing to the students who met him halfway and attended his recitations. 5 stars. . .

Better Response Rates

SYRACUSE UNIVERSITY

Department: Mathematics

Term: Fall 2015

Form: Mathematics Department Student Rating

Instructor: McWhorter, Caleb Gichrist

Class: MAT397 Section M002 (Calculus III)

Responses: 19 Enrollment: 29 Response Rate: 65.5%

Written Comments

- Because of the habits, you do speak too fast. Sometimes people might be kind of shy. Maybe next time even when no one asks questions about the problem that was just solved, just point out the key fact of how to solve it once more.
- Caleb a fine gentleman. He loved our professor so much it was great to see a great relationship between professor and TA. Helped up learn. He is easy to get along with and easy to communicate with because is similar in age. He acts very mature for his age though.
- Caleb really made things clear in a class where we would go through material at such a fast pace. His grading was incredibly fair and he was just incredibly full of math knowledge that it was great to learn from him. This is the second time I've had him as a TA and I'd recommend him to any future students. My grade in this class won't reflect the job he does in recitation (borderline B/C).
- Caleb spoke quickly and knew the material but he often taught differently than the teacher did which made it tough to follow but he was a fair grader and he did his best to teach the necessary material. I wouldn't mind having him as a TA again but I think he should just try to teach the way the teacher teaches it. Or maybe he should just teach the way the professor does first and then show the alternate that way that he finds the easiest. Sometimes it seems like it is his way only and no other way is better for some people.
- I had Caleb last semester for Calc II as well and he is by far the best TA I've had. Sometimes after our lecture I would be a little confused, but during recitation Caleb always explained it in a way that made me better understand it. I like that he has comment cards after each class because it shows he is committed to making the learning experience as good as it can possibly be for us. He also always has example problems and solutions that relate to lecture and help us better learn the material. Good job, I'll miss you next semester!!
- I learned a huge amount of the material from him and he was a great teacher.
- I want Caleb to be my new best friend because he is so sassy and speaks his mind. Other than that, he did a great job explaining concepts and making them easier to understand. The weekly tangents or funny stories about eating a full ice cream cake for dinner made recitation fun and made me look forward to going to recitation. One thing I would say that Caleb needed to work on was his talking speed. Sometimes he talked way too fast.
- I wouldn't have survived Calc III if it weren't for Caleb. During recitation, his examples and explanations clicked in my head in a way that they didn't in our regular class meetings with our professor. He always made class entertaining and going to recitation every Tuesday was my favorite class (even though we did have to suffer through a quiz every week). Caleb also always held review sessions outside of recitation, some of them occurring on the weekend, and would spend as much time as needed with us in order to prepare us for exams. Without a doubt, the only reason I've done well in this class is because of our recitations. He is a very dedicated, funny TA and I would love to have him again in the future.
- If I can be half as enthusiastic about what I do someday as Caleb is about mathematics, I think I'd be satisfied in life. Thanks Caleb for your constant positivism and helpfulness in recitation. I enjoy your little tips and tricks to make complex problems seem easy and weird ways of memorizing things. Caleb also always asks at the beginning of the class how everyone is doing and if anyone has any fun stories to share. Even though he rarely gets responses, he never stops asking it. He never know who's day has just been improved by it. Keep it up and stay away from those cigarettes. #teamdietcoke
- Talked to fast and wrote really fast. I suggest slowing down because sometimes it was difficult to comprehend what was written on the board. You showed a lot of enthusiasm and graded fairly. You need to show better examples and show from what section your are getting them from instead of just writing them down on the board.
- The way the TA and the professor teach this course is different at times and can be very confusing as opposed to the material being taught one way and it would be easier for us to understand.
- This guy is going places, no idea where cuz he's nuts but places. I found that the way Caleb simplified the concepts down to an easier level of understanding really helped out the course, I found I got more out of him than the instructor. Very dedicated to the students, review sessions before each exam lasted as long as the students needed, covering all material. Caleb also has wagg.
- Very interesting person. Pretty relaxed and cool guy. Has a lot of interesting stories and know calculus very well.
- your the greatest TA somebody could ask for, loved having you for the past 2 semesters!

Fun Responses

- Caleb is the bomb.edu
- I want Caleb to be my new best friend because he is so sassy and speaks his mind.
- Caleb's a genius and he kinda looks like Ryan Gosling so props for that
- Will you marry me?
- I am concerned about how much soda he drinks. Also i'm not sure how he loves math so much, but that might not be a problem since he is doing a PHD in math.
- If I can be half as enthusiastic about what I do someday as Caleb is about mathematics, I think I'd be satisfied in life. . .
- This guy is going places, no idea where cuz he's nuts but places . . . Caleb also has swag.
- Solid, knew his stuff and didn't care that I slept through the class
- There's a snake in my boot

Using Comment Cards

- Give sufficient time to fill out.
- Use consistently.
- Show you read them—bring them up!

Self Self Evaluation



Self Self Evaluation — Self Accountability

Create a weekly checklist for your teaching. Each week check to see if you met your own teaching expectations.

Possible checklist categories:

- Preparation
- Classtime
- Grading

Preparation: Did I...

- Spend at least x hours of preparation?
- Properly estimate lecture time?
- Leave ample question time?
- Select interesting and engaging examples?
- Consider different learning styles?
- Prepare handouts?
- Create summary sections?
- Address common misconceptions?
- Practice the lecture?

Classtime: Did I...

- Ask & leave time for questions?
- Properly use body motions?
- Not stand in front of writing?
- Speak loudly and clearly?
- Properly use verbal emphasis and word choice?
- Pace the class effectively?
- Leave material long enough on board?
- Organize board material coherently?
- Write a class goal summary?
- Outline and summarize material?
- Ask students for feedback?

Grading: Did I...

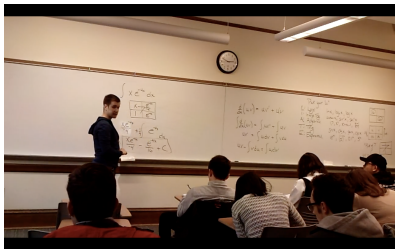
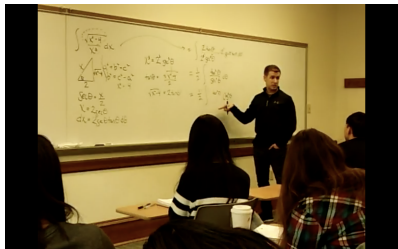
- Create a fair scheme?
- Leave feedback?
- Analyze the grades?
- Create a scheme that differentiates learners?
- Leave a fair amount of grading time?
- Return grades promptly?
- Inform students of overall performance?

Self Self Evaluation — Be Honest, Be Relevant

On your checklist. . .

- Give yourself honest feedback.
- Include only what is relevant, i.e. what you want to work on.
- Keep track, makes changes, be accountable.

Record Your Class



<http://graduateschool.syr.edu/programs/ta-program/services-for-teaching-assistants/>

Questions?