Classroom Comes to Life

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Abstract

To succeed in high school, college, and workplace, students need more than scientific knowledge. The rapid technological changes necessitate advanced problem solving and lifelong learning abilities. Moreover, the increased complexity of products and specialization of production require excellent interpersonal skills, good oral and written communication, and efficient planning and time management. For these reasons, I believe that my main role as a teacher is to help the students become independent learners and skilled problem solvers. Only secondly, my role is to guide the students through the study of mathematics and computer science. The entire classroom experience is designed to fulfill these roles. In this manuscript, I provide details on my vision of the physical design of the classroom, a plan to cultivate and maintain positive climate, to establish and uphold expectations, class systems and routines, strategies to enhance students' motivation, and a plan for communication with families. Because only when the students feel safe and connected to the classroom community, they are able and motivated to learn, every aspect of the classroom design and management is designed starting from the same basic principle of *meeting students' physical, emotional, and learning needs.*

Classroom Comes to Life

Introduction

First, I present my personal teaching philosophy and its influence on classroom management. Next, I describe the school and class setting for which I developed the plans and procedures. I conclude the section with approaches to ensure that my classroom is an inclusive and equitable environment.

Personal Philosophy

We live in a rapidly changing world where the ability to quickly learn new technologies and procedures is essential. Moreover, the complexity of products increases continuously, and, thus, ability to work well with others is paramount. Thus, my main goal as a teacher is to help my students become independent learners and excellent team members and leaders. High school mathematics and computer science are ideal subjects to teach these skills. In advanced mathematics, the importance of quick calculations diminishes and the increased difficulty necessitates collaboration to understand the material. Rarely, a software application is developed by a single person, and students must work in teams to create interesting programs.

I strive to create a classroom environment that facilitates learning and fruitful collaborations. Since students are able to learn only when their needs are met, the classroom layout and management aims at addressing every level of Maslow's hierarchy of needs, with a special focus on needs of girls and minorities:

1. *Physiological.* My classroom offers shelter, food and water. To meet the needs of my students, I create in my classroom a safe space to rest and recollect, provide snacks and water to alleviate the stress of food insecure students, and sanitary products. The products are available to all students, not only the food insecure ones.

2. *Safety.* The safety needs of the students are met through a thoughtful design of the classroom to eliminate hazards. A peaceful and create serene environment that does

not to trigger recall of previous traumatic incidents is especially important to students from a lower socioeconomic status are likely to suffer from PTSD from adverse childhood experiences.

3. *Love and social belonging.* I make an intentional effort get to know my students on a personal level, and encourage them to know their peers. The physical layout and classroom expectations and routines facilitate collaboration and group work, increasing the cohesion of the community and the sense of belonging. The classroom is designed to be an attractive space for girls with beautiful plants, cheerful colors, and nature posters. I work with local communities in include items that are culturally relevant to minority students.

4. *Esteem.* I do not believe that some students are mathematically gifted, while others are unable of higher-level mathematics. Every student is capable of learning, albeit at a different pace than others. My classroom is a learning community where every single students feels valued. For equitable instruction, I provide scafolds and use differentiated instruction.

5. *Cognitive.* In my classes, students work on projects to uncover the mathematical truths and are active participants in their own learning. Additionally, students are encouraged to use a variety of methods and media to demonstrate knowledge, unleashing their creativity.

6. *Aesthetic.* I work with local businesses to maintain a clean, beautiful classroom.

7. *Self-actualization.* The classroom expectations are designed facilitate productive use of the class time. I will continuously monitor the efficiency of the classroom and improve the physical environment and clarify and refine expectations. I will work with students to identify their own behaviors and mine that distract them from learning. A regular schedule and routines further support the productive use of class

time. I work with my students to set goals and make a plan to achieve them.

School and Classroom Setting

Throughout this document, I assume the school setting is an Albemarle County high school. The mathematics and computer science classes may enroll students in any grade from freshmen to seniors. The classroom is designed as a flexible space to accommodate any of the math and computer science taught in Albemarle County high schools. The flexibility is important as the math and computer science is re-imagined in the Commonwealth of Virginia and because I would teach at least two different subjects at a variety of levels.

Equity and Diversity

To know my students, I greet them at the door every class, attend school and community events, and establish warm relations with the students' families. As an immigrant from an Eastern European country, I understand that the tension between one's home culture and the dominant Western Protestant culture could be detrimental to classroom relations. Students may easily misunderstand peers behaviors and, as a result, feel disrespected or even unsafe. Thus, it is important that the students also know each other as individuals. The relationships between students are just as important to the classroom climate, as my relationship with each student.

Physical Classroom Environment

My classroom environment is built around two main concepts: collaboration and inclusion. Next, I explain why I chose to focus on these aspects of classroom design. Mathematicians and computer scientists do not work alone. Often, professional mathematicians have close collaborators to bounce ideas and test hypotheses. They collaborate online, and travel to each other's institutions to work with peers in person. Other important aspects of a mathematician's work are writing their results in a clear and concise manner and public presentations of their results for a wider audience than the small groups of experts that work in the same area. Collaboration is even more important for computer scientists. The team works together to design a solution, and then each member gets a specific task to accomplish. If the task is not completed according to specifications, then the project fails. Thus, Computer Science projects are ideally suited for students to learn the responsibility of being team member.

Mathematics and, especially, Computer Science are fields with very low participation of women and minorities. Because I am a woman, I can be a role model for girls. However to attract and keep the girls in the classroom, the assignments have to be relevant to girls' lives, and the classroom must feel inviting to them. Next, I present a classroom design focused on collaboration, with a special focus on retention of girls and minorities in Mathematics and Computer Science. I use the framework developed by Weinstein [3] and I explain how I address the six basic functions of a classroom.

Security and Shelter. To eliminate the hazards caused by laptop power cords, I work with the school staff to provide a source of power to each cluster of desks. The power cords are wither hidden or taped to the floor. To reduce the movement of students around the classroom, there are trash cans and supply stations in every corner of the classroom. Besides the physical safety of the classroom, I address the need for psychological safety. I envision my classroom as an oasis of calm and a refuge for students. To reduce noise, I keep the classroom door closed to dampen the sounds coming from the hallway. The closed

door also serves a clear boundary for our classroom community. Additionally, my classroom has a quiet space, surrounded by plants for students to take a mental break when needed. Plants are also used as boundary between groups and to add softness. There are snacks, water, and sanitary products available for students that need them.

Social Contact. Good collaborations happen if the physical environment is conducive to and not impeding them. First, students must have enough whiteboard space to be able to stand and see each other's writing. Students feel comfortable adding their own writing on the white board rather than scribbling on someone else notebook. Lastly, standing at the whiteboard makes it less likely to get distracted by phones.

To foster collaboration, I have medium size white boards on all walls, so that each group has plenty of space to do their work and enough separation from other groups to feel like a cohesive unit. To accommodate larger classes, I add a few rolling whiteboards. Each group has their own supplies including magnetic clips, dry erase markers in a variety of colors, erasers, and liquid cleaner. I reserve the white board at the front of the room for myself, such that each group has an equal position in the classroom and do not feel extra pressure or feel more important because they use the teacher's whiteboard.

To learn the value of collaboration and how to collaborate students must practice it often. Almost all classes include a group work activity. Besides working together, the students can practice explaining their work to "visiting" groups and can move around to read other groups' solutions.

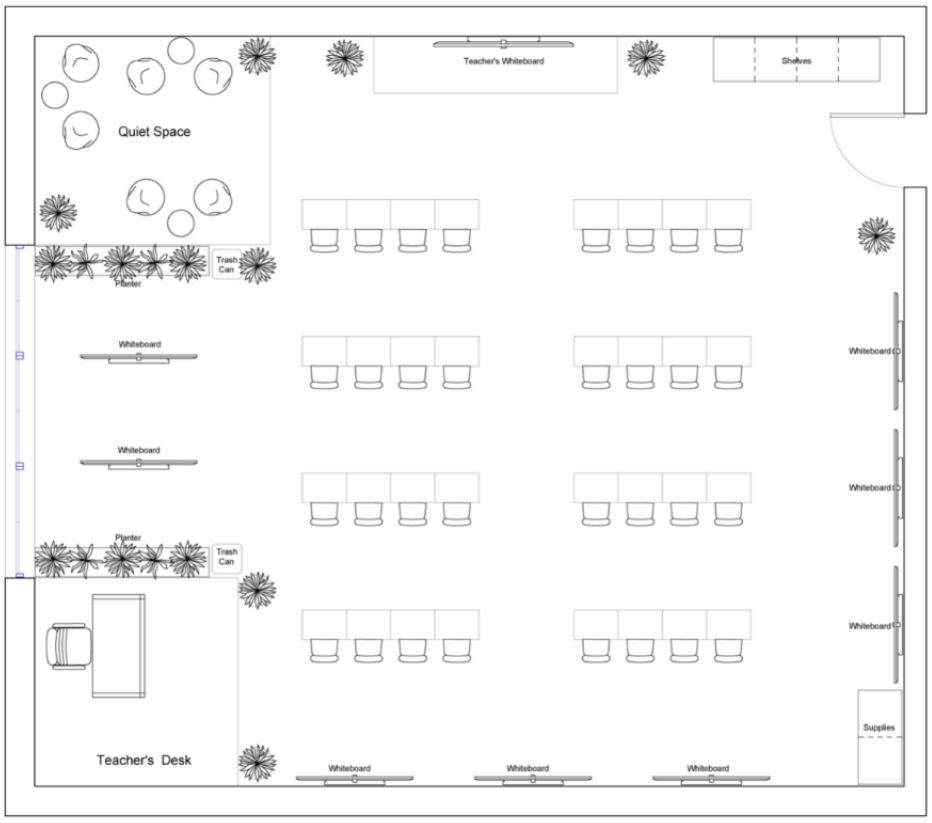
Symbolic Identification. Typically, mathematics and computer science classrooms are not inviting to girls and minority students. They feel sterile, drab, and are filled with comics and posters that traditionally appeal to white males [2]. Girls feel more welcomed in classroom with soft lighting, plants, and cheerful colors. I repaint the classroom walls regularly with appealing colors and add standing lamps around the classroom to avoid using the harsh fluorescent lights typically found in schools. Instead of inspiring posters, math formulas or comics, I decorate the walls with serene nature posters. Most

importantly, I reserve wall space I call “Portraits of Mathematicians and Computer Scientists” which will include famous mathematicians and computer scientists all genders and races, and a self-chosen photo or drawing for each student I teach.

Task Instrumentality. Because I move around the classroom to observe groups and to help when needed, the teacher’s desk is located at the back of the classroom. I leave enough space between rows so I can reach each cluster of desks easily [1]. For short lessons, I use a lectern at the front of the room to place my computer. The student’s desks are arranged in clusters in the middle of the room, facing the teacher’s whiteboard for note taking. The students collaborate standing and, and thus there is no need to have desks facing each other. Supplies are available in each group’s space, as well as in each corner of the room.

Pleasure. The white boards are decorated cheerfully, and the entire classroom is designed to be an appealing, soft environment.

Growth. To encourage students’ growth as learners and explorers of Mathematics and Computer Science, my classroom has mathematical games and puzzles available all around, near the each group’s works pace. The materials may be used whenever a group finishes and activity early and during the half an hour of Mustang Morning.


Teacher's Whiteboard
Shelves
Quiet Space
Trash Can
Planter
Whiteboard
Whiteboard
Whiteboard
Whiteboard
Whiteboard
Planter
Trash Can
Supplies
Teacher's Desk
Whiteboard
Whiteboard
Whiteboard

Cultivating and Maintaining Positive Climate

I present three strategies I use to cultivate and maintain a positive climate.

Getting to know my students

The first week of class is reserved to getting to know my students through a survey (Google form) and direct observation [3]. The survey questions are designed to probe for shallow understanding of the preferred learning modalities, cultural background and students' hobbies.

I start the first class by introducing myself and asking every student to say their name. Next, I ask the students to quiz me on their names. If I can not answer, then I ask for help from other students in the class. Asking for help from other students in the class, forces them to practice the names of peers along with me.

After this short activity, I introduce the survey and present my own answers demonstrating selective vulnerability [1] by sharing difficulties to work in large groups and a preference for speaking a language other than English in certain contexts. To avoid the students viewing the survey as yet another homework to be conquered swiftly, I ask the students to complete the survey in class in a private place in the classroom so that no one is influenced or hurt by their answers. I play soft music and tell them occasionally how much time they have until the activity ends. The rest of the class is spent playing mathematical games available in the classroom (*e.g.*, *Prime Climb*, *Make 24*, *Proof*, tangrams, logical puzzles). During play time, I move around the classroom and take mental notes on what type of games students play, with whom, and their mastery of mathematical facts.

Script. *I would like you to share a few things about yourself to help me design the classroom activities and assessments for the next couple of weeks. You will fill in the survey linked in Schoology, but first, I share my answers with you. I hope that once you know me a little bit about me you feel more comfortable answering.*

[Project the my answers to the survey]

My name is Ana Nora Evans, but I prefer to be called Nora. I was born in Romania and the two first names have equal standing. You may call me Ms. Evans or Ms. Nora.

I prefer to work mostly alone. For some types of projects, I prefer to work with a small group of 1-2 people that I am comfortable with. I find working with larger randomly formed groups too socially demanding. This approach has the disadvantage that I do not get exposed to very different ideas and working styles and I make an effort to occasionally work with diverse large groups, especially in the brainstorming stage of the project.

I tend not to be too outgoing in classes and often volunteer answers only when I am sure I am correct. This probably comes from my own education in Romania. I hope you will feel comfortable taking intellectual risks in this class and not be scared of being wrong. It takes courage to be the first one to propose an idea for a strategy to solve a difficult problem, especially when you do not see exactly how that leads to the solution.

In this class, I am the teacher and I am responsible for your safety and learning. For that reason, I am not your friend, but I can still be friendly.

To be able to form the first groups while we are still getting to know each other, I am asking for your group preferences and who your friends are. Sometimes you will be able to choose your groups, but other times I may use random grouping.

I would like to know your preferences for completing assessments. In the first couple of units I allow you to choose your favorite method of demonstrating knowledge. Later, I will push you a little bit out of your comfort zone and ask you to demonstrate your learning using other methods.

I was born in Romania and moved to Charlottesville in 2004. Because my graduate education was in English at UVa, I feel more comfortable speaking math and computer science in English, but I am much more comfortable yelling at my kids in Romanian. I definitely feel more comfortable writing in English.

I am not a big consumer of music. I tend to listen to a small number of heavy metal albums. My favorite bands are Manowar and Rammstein. I have a first dan black belt in

Tae Kwon Do. I used to play soccer, but I had to give it up because of an injury.

Now, I would like you to take the next 15 minutes to fill in the answers to the survey. I would like you to find a place to work where you can't see your friends' answers and they can't see yours. I don't want you to be influenced by their answers or to be a little untruthful because you don't want to hurt their feelings.

[Play soft music while the students work.]

You have 5 minutes left. You have 1 minute.

If you would like to take more time to answer, please feel free to continue to work on the survey at home. If you didn't finish answering, and don't want to finish it at home is okay. We will work the entire year on getting to know each other. For the rest of the class, please pick a game and play it with others in the class.

The second class starts with a mathematical warm-up activity that can be completed in groups. As students come through the door, I greet them and give them the handout. On the white board, I project instructions to start working alone or in groups. I walk around the classroom and answer students' questions and help them when they are stuck. I make mental notes of each students' ability to solve the assigned exercises. After 30 minutes, we have a whole-group discussion and solve the exercises as a group.

For the remainder of the class, we participate in the following activity. I use the survey answers to create four signs for each question: the three most popular answers and a sign for other answers. For each question, I will set a sign in each quadrant of the room and ask students to move to the quadrant corresponding to their answer to the survey question. I will give them 5 minutes to introduce to the people in the group. At the end of the class we will have our first competition to determine who knows the names of most of their peers.

Roses and Thorns

Every class, I greet my students at the door and hand them the worksheets and guided notes for the day. First, my body creates a physical barrier between the classroom

students and the ones in the hallway marking the classroom space as a space for students in this class [2]. Second, I make eye contact and have a positive interaction with the students. I use this opportunity to ask a friendly question or notice something about the student.

To learn about the student's lives outside school, every Monday, we complete the *Roses and Thorns* activity. The Friday before we do the activity for the first time, I introduce it and model it. On Monday, I will gently remind the students they have to complete the activity as they enter the classroom.

Script to introduce the activity. *Every Monday, we start class with an activity called Roses and Thorns. I would like you to share a rose, one good thing that happened to you over the weekend or the week before, and a thorn, one not so good thing that happened to you. You have the option to contribute electronically to a Jamboard or by handwriting your answer on a sticky note that you will place on the white board. Sticky notes and pencils are available in the workspace of every group.*

Let's practice this activity together. Everyone, please line up by the door. First, please decide if you want to hand write or type your note. If you hand write your note, take the sticky notes from your work group area, go to your desk, write your note and then place it on your group's whiteboard. If you type your answer, please sit at your desk, take your laptop out and follow the link in Schoology to the Jamboard.

[The sticky notes are placed on the whiteboard where the jamboard is projected].

Please take 2-3 minutes to share your rose and thorn with your group members. As a group, decide on one rose or thorn to share with the entire class.

On Mondays, the Jamboard with the teacher's notes is projected on the whiteboard. As students come in, I gently remind them to complete the activity.

The *Roses and Throns* activity builds trust in two ways. The first trust generator is similarity of interests [1]. It allows students and the teacher to find common interests. Perhaps the teacher attended the same activity as a student, or they watched the same sports event. The teacher can mention that in public or to the individual student at some

point during the class. The second trust generator is concern [1]. If the student shares that they are going through a difficult time, the teacher is able to express sympathy and reassure the student that they can take time on the assignments, and give them some space during the class. If students share difficulties with the class material, the teacher can either address that immediately, or prepare an activity for the next class to address the students' concerns and misunderstandings. The teacher's words and demeanor should reassure the student that the classroom is a safe place and that the classroom community is there to support the student.

Mustang/Patriot/Warrior Mornings

Between the first and second block, students spend half an hour every two weeks in my classroom. I use this time to check in with students regularly. First, I ask all students to write on an index card something that works for them in the class and something that can be improved. For the rest of the Morning, the classroom is divided into four quadrants: one reserved for students that plan to work on other classes, one for students that work on my class, one for students who want to play games and socialize, and the last one for students that need a break and quiet time. Signs and instructions are posted to indicate each quadrant's location and rules.

The rationale for asking the students to make a choice is to remind them that their time is precious and that Morning is a time to catch up on assignments and proactively communicate with teachers. Since there is no instruction during this time, I am able to move around the classroom and have friendly conversations with students that work on other classes or play games. I focus most of my attention on the group that works on math. Each Morning, a quarter of the class is required to participate. Other students may join as they wish. By using this strategy, I avoid stigma associated with always being the ones needing help, while others get to play all the time. For each student, I make a plan to check on grades, completion of assignments, notes taken during class, discuss one or two

issues I noticed in their assignments. I also work with the students set up an achievable goal and create a plan to accomplish it. My actions demonstrate to students that I am invested in their success in my class. Students that lack planning skills and that do not have the home support they need benefit most. At the same time, students that play games and socialize build a stronger sense of community.

Establishing and Upholding Expectations

In the figure below, I show the design of the poster to be displayed in the classroom.

Mrs. Evans' Expectations

Students	Herself
Use classroom time productively: • Listen carefully to what others say • Take notes • Focus on math and only math • Ask questions • Help your fellow classmates	Use classroom time productively: • Come to class ready to teach • Plan the lesson carefully and create materials for students that are clear and helpful • Listen to students' carefully • Answer questions thoughtfully • Focus on the students and only the students

Safe space:
• Physical Safety
  ○ Keep belongings out of the aisle
  ○ No physical aggression or threats of physical aggression
  ○ No teasing or bullying
• Mental Safety
  ○ Be kind and patient with everyone
  ○ Smile
  ○ When you feel overwhelmed talk to Mrs. Evans or a helpful adult in your life.
	Safe space:
	• Physical Safety
	  ○ Reserve space for students' belongings
	  ○ Provide safe locations for students to charge their devices
	  ○ Address promptly only physical threats and aggressive behavior
	• Mental Safety
	  ○ Take care of her own mental health
	  ○ Be kind and patient with herself and students

Suggestions for amendments to the expectations:	Suggestions for amendments to the expectations:

Because I value order and efficiency, I develop classroom expectations to ensure a productive use of time. I purposefully chose only two expectations with several examples of acceptable and unacceptable behavior. Students know what to expect in my classroom [3], acceptable behaviors are those that lead to productive use of time and maintain a safe environment. Lemov suggests that directions and expectation must be clear and observable [2]. Respect may look differently across cultures [1], but completion of activities is an objective measure that anyone can understand. Besides productive use of time, I add a

second expectation that everyone contributes to maintain the safety of the classroom environment. The classroom expectations are permanently on display. I allow space for students' suggestions and I remain open to amend the expectations as needed. Besides my expectations for students, I show expectations for myself to signal that I, too, am held to the same standards.

I discuss the expectations with the students in the second week of classes. I introduce the expectations using the script below.

Last week, we started to know each other. This week we continue building our community with expectations of behavior. I only have two rules: use the class time productively and keep yourself and everyone around safe. By productive use of class time, I mean that you should work on math when you are in this class. No multitasking, just math. I expect you to fill in guided note sheets, write solutions of exercises in your own worksheet, work on homework and practice problems. When you finish everything, you may play one of the games available in the classroom. Please take a few minutes for you to make a list of behaviors that lead to a productive use of class time and behaviors that may make it difficult for you to be successful in this class. Take 10 minutes to brainstorm, and then we discuss as a class your ideas.

[Class discussion]

The second rule is related to safety. Basically, safety is absence of harm. If your actions may lead to someone getting hurt, then do not do it. For example, if you leave your backpack on the aisle, someone may trip and fall. Both parties contributed to the event, the one that tripped and the one that left the backpack in the aisle. In my opinion, there are no accidents, just hazards that have not been eliminated. Safety does not mean only physical safety, but also mental. The rule of thumb is: if you can't say something nice, don't say anything. Now, take another 10 minutes to brainstorm ideas of acceptable and unacceptable behaviors related to safety.

[Class discussion]

To uphold expectations, I am proactive in quietly reminding the students to stay on task by moving around the classroom and being seen by the students that I am looking [2]. When I observe a student getting distracted I tap their desk or shoulder as a gentle remainder. If the student persists with the distracting behavior, I remind the entire class the expectation that the class time must be used productively and explain how the observed behavior is not conducive to our goal. I will not mention the students' name. If the misbehavior continues, I ask the student to meet with me at a later time. For that meeting, I enlist the help of a guidance counselor. Instead of framing the meeting as a punishment to the student for not following class rules, I frame it as what can we do to help the student. For behaviors that violate the school's policy, I strictly follow school rules.

Below is a script of a meeting with a student that keeps using their phone during class.

Johnny, I noticed that notes for section 3.2 are not completed. Writing down the notes yourself is very helpful to remember the content. The expectation is that you focus on math during class, however, I saw you reading social media posts on your phone. What is going on?

[Johnny makes up some excuse.]

I understand that things happen in your life outside school, but then you must talk to me before using your phone. I allow you to use the quiet corner to take care of an emergency. But, after you take care of things, I expect you to get back to being productive.

[Johnny keeps being distracted by his phone the next week.]

This is the script for a follow-up conversation.

Johnny, we are meting again today because you did not ask to use the quiet corner and you are using your phone during class. This behavior violates the class expectation for you to work on math. What do you think you can do keep from getting distracted by your phone? For example, I put my phone facing down and out of reach. Because the phone is facing down, I can not see the notifications and because it is out of reach, I must make a

conscious effort to pick it up. What do you think would work for you?

[Johnny makes promises he will not touch his phone.]

Johnny, I really need you to come up with a viable strategy to stay away from your phone. What do you think about plugging it in the charging station for the duration of the class?

[Johnny reluctantly agrees]

If a significant number of students demonstrate the same behavior, I will have a similar conversation with the entire class at once.

Class Systems and Routines

My class is organized following the same general schedule. I base the start routine on the *threshold* and *strong start* actions proposed by Lemov [1]. The students are expected to start working as soon as they enter the classroom.

1. *Greet the students at the door with a kind word.* Thus, I start the class with a positive interaction with the student, even if it is only a smile and eye contact. My presence at the door discourages the students to linger on the hallway or start lengthy conversation with passers by after they enter the classroom.

2. *Hand the students the guided notes and practice worksheet for the day.* The students have what they need to start working as soon as they enter the door. The first page in the worksheet is the warm-up exercise and pencils are available in each groups' working area. I leave space for students to solve the exercise. This strategy makes it easy for me to notice the student does not do the work, thus increasing accountability [4].

3. *The students go to the assigned group work space.* To eliminate the need to move students around the classroom, I ask the students to go directly to their assigned group.

4. *Directions to start working on the warm-up are projected on the whiteboard.* This is another reminder that it is work time.

5. *Students work 10-15 minutes independently.* During this time, I take attendance and walk around the classroom to observe the students' performance and to answer questions.

6. *Whole class discussion of the warm-up exercises.* I remind students that their notes must be filled in by the end of the discussion.

Next, I introduce the topic of the lecture, including a motivating example. Guided instruction lessons continue with:

1. *I do.* I explain the content and model problem solving.
2. *We do it together.* I demonstrate problem solving with input from the students.
3. *You do it together.* Students work in groups.

Routines for exploration based lessons [2] are:

1. *Launch* the students to work in groups on a carefully chosen problems.
2. Students *explore* solutions to the given problem.
3. *Discuss* solutions with the whole class. The teacher makes the math visible and students fill in the guided notes.

Both type of lessons end with independent practice. Students may ask the teacher and classmates clarifying questions. I move around the classroom to make my presence felt by the students [1].

Differentiation is included in instruction through choice of individual activity (warm-up and independent practice) [3].

Working with Students' Families

My strategy on working with students' families is to email a letter to parents to introduce myself before the school starts and send a paper copy home in the first week of classes. Next, I try to send a positive email about their child specifically in the first couple of weeks. Periodically, I send emails to remind parents to check their student's grades in PowerSchool and to announce the dates of the unit assessments. In every email and communication, I encourage the parents to reach out to me with any concerns or questions. Additionally, I send emails whenever a student does or achieves something outstanding. Any disciplinary issues will be sent through the school channels. Below, I show the first letter I would send to the parents.

Dear Parents and Guardians,

I am delighted to teach your student Algebra 1 for the 2022-2023 school year. I would like to take the opportunity with this letter to introduce myself and to set the expectations for the school year. This is my first year teaching high school mathematics, but I have prior experience as a teaching assistant and instructor for college level Mathematics and Computer Science courses. Prior to earning a Master of Teaching degree from the University of Virginia, I worked as a computer programmer and earned a Master in Computer Science and Master of Arts in Mathematics, also from the University of Virginia.

I deeply believe that every student is capable of understanding and learning mathematics. My goal is to meet every student at the level they are in August and help them move forward as much as they can. I discourage rote memorization of facts and procedures. To that end, the students will be asked to process and understand the mathematical concepts in Algebra 1. I aim to have every student be challenged at a level that is not frustrating to them, but that is not too easy either. Some struggle is expected as part of the learning process, as we encounter new ways of thinking and level of abstraction and rigor increases.

The classroom is a welcoming learning community for everyone. I expect the students to be good citizens by contributing to the class as well as helping their classmates.

When a knowledgeable student explains a problem to a classmate that has troubles understanding it, both students benefit. We will have numerous opportunities for group work to practice oral mathematical communication, as well as written assignments to practice mathematical writing. Besides getting help from fellow classmates, I encourage the students to communicate any difficulties and frustrations directly to me, but please feel free to speak to me on behalf of your student. The class materials will be made available in Schoology, including notes, practice problem sets and solutions. I will include optional material to provide alternative presentations of each unit.

The best way to reach me is by email at nevans@k12albemarle.org. We can set up a phone call, Zoom or in-person meeting if you prefer to talk.

I would like to make the classroom a comfortable and safe place for every student. Please communicate to me anything that I can do to make the classroom environment and lessons accessible to your student.

Sincerely,

Mrs. Evans

Self-Care Strategies and Plan

Ever since listening to Randy Pausch giving his *Last Lecture* talk at the University of Virginia [1], I prioritize activities by the importance and enjoyment to me and by deadline. Time is extremely important and I set time bounds for activities, especially for those that I tend to spend more time than needed.

To deal with stress, I plan my week in advance scheduling almost all my time, including exercise, time with my family and friends. Knowing that I have time to complete what matters to me and what has a pressing deadline first, reduces my stress level. Being proactive in planning, also helps me ask for help from family and colleagues when I feel overwhelmed.

Another method I use to reduce stress is to fix little things that irritate me before I

get too upset about them. Simple things like moving something that is in my way, opening the window to let fresh air in, removing sources of noise from the environment, staying hydrated, a healthy snack make a huge difference in my well-being by keeping my baseline stress low. Then, when something happens, I have the mental resources to deal with the event. Specifically, my mental health plan consist of:

- make the classroom a comfortable place to be in
- keep warm clothes to stay comfortable
- have healthy snacks available for breaks between classes
- always have water nearby
- eliminate sources of stress from my environment
- make plans and lists to know in advance if I need help
- prioritize aspects of teaching that make me happy
- plan time to exercise with my family
- plan time for walks with colleagues and friends

Reflection

During this semester, I spent some significant time thinking about classroom management, especially about class expectations and routines. I think the expectations are difficult to establish if they are inconsistent with the rest of the students' school experiences. If the school has a strong work ethos, then it is easy to lead a productive class. If, in most classes, students spend significant amounts of time on their phones or on the hallways, then it is very hard to keep my own students on task. There are simply too many distractions for a student to ignore.

I opted for two broad expectations of high productivity and safety, mainly because there is very little a teacher can do if a student does not follow class rules. Establishing a rigid set of rules and expectations is useless without the means to enforce it. For both expectations, I can approach a violation from an objective point: notes are not filled in, someone gets hurt, practice problems are not solved. Then I can discuss with the students what can we do to fix things.

The readings help me notice possible improvements to the efficiency of my classroom routines. The most challenging aspect of this project is the size. With the demands on my time from placement, school, and family life, it would have been easier for me to have four smaller projects, with due dates during the semester. With a more immediate goal of completing the project, I would have had an easier time connecting and using the readings with the project.

For future growth, I need to understand the discipline measures and expectations in a *normal* school year and design classroom expectations that match the school's.

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