# A Day in the Life of Jasmine: A Senior's Experience with STEM Education at Southside High School

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#### **Author Note**

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# A Day in the Life of Jasmine: A 12th-Grade Student's Experience at SouthSide High School

The objective of the Opportunity Structures for Preparation and Innovation (OSPrI) research program is to examine the opportunity structures created for students in both inclusive STEM High Schools (ISHSs) and comprehensive high schools with STEM programs that engage, inspire, and prepare them for STEM fields. In contrast to highly selective STEM-focused schools that target students who are already identified as gifted and talented in STEM, ISHSs and comprehensive high schools with STEM programs do not have strict admission requirements. This inclusivity serves underrepresented minority students in STEM by providing opportunity structures that broaden sources of new STEM talent, expand workforce development, and prepare new STEM professionals.

One of the goals of the OSPrI study was to capture students' perspectives of STEM learning opportunities in both ISHSs and comprehensive high schools. In January 2015, our research team visited one such comprehensive high school, Southside High School<sup>1</sup>, a secondary school in the southwest United States. The purpose was to capture how two students, one male 10th-grader and one female 12th-grader, respectively experienced their school day. The research question was: From the points-of-view of students underrepresented in STEM fields, what are the educational experiences and opportunity structures provided by their school? Two researchers shadowed each student for 2 school days. We followed the students from the moment they arrived at school to when they left for home, observing them in classes and during informal activities. Two instruments guided the classroom observations: One researcher focused on the class-level activities as a whole, and a second focused on the participating student. Using semistructured protocols, we also interviewed the students and their parents, as well as the principal, guidance counselor, advisors, and teachers. We recorded common themes in the classroom observation notes and transcribed interviews, noting the presence of the 10 critical components in Table 1 (Peters Burton, Lynch, Behrend, & Means, 2014). We also found a new set of themes that emerged from the students' points of view of the school. After each case study was written, we provided drafts to the principal and participating students to check for accuracy and approve the case. This case study of Jasmine is the result of this site visit and interpretation of findings.

Table 1
Ten Critical Components of Inclusive STEM-Focused High Schools

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Critical Component		Pract	Practices Observed					
	EM-focused riculum	•	Strong courses in all four STEM content areas Engineering and technology offered or intentionally integrated into STEM subjects and non-STEM subjects					
		•	<ul> <li>More STEM requirements than school district or state</li> </ul>					
2. Ref	Reform •		Active learning; project-based learning or inquiry in STEM classes					
stra pro	tructional ategies oject-based rning	&	Incorporation of 21 <sup>st</sup> Century Skills into goals and products of instructional practices  Performance-based assessment practices  Research opportunities					

<sup>&</sup>lt;sup>1</sup> All of the names used in this case study are pseudonyms.

3.	Integrated,	<ul> <li>Technology an explicit part of school design and implementation</li> </ul>		
	innovative	• Technology used to connect students with information systems, models,		
	technology use	databases, teachers, mentors, and social networks		
		<ul> <li>Technology used for student production</li> </ul>		
4.	Blended	• STEM activities extend beyond the boundaries of a typical school day,		
	formal/informal	week, or year (e.g., afterschool clubs, mentorships, internships;		
	extended learning	apprenticeships and summer programs)		
5.	Real-world STEM	• Students connected to business, industry, and the world of work via		
	partnerships	mentorships, internships, or projects applied to STEM learning		
6.	Early college-level	Flexible school schedule designed to provide opportunities for students to		
	coursework	take classes at institutions of higher education or online; college credits		
		accrued		
7.	Well-prepared	• Teachers are qualified and have advanced STEM content knowledge		
	STEM teaching	and/or practical experience in STEM careers		
	staff	Teachers are collaborative and buy into school mission		
8.	Inclusive STEM	• The overarching, inclusive, STEM-focused mission of the school		
	mission	manifests itself in school practices		
		<ul> <li>Active recruiting of students from underrepresented groups</li> </ul>		
9.	Administrative	• Varies (school within a school, charter school, magnet school, etc.) and		
	structure	most likely affected by the school's provenance		
		<ul> <li>Networked; able to garner community support</li> </ul>		
		<ul> <li>Leadership is mission-centered, nimble, innovative</li> </ul>		
		<ul> <li>Flattened hierarchy and shared leadership with staff</li> </ul>		
10.	Supports for	• Systems of advisories, tutoring, and data and communication used to		
	underrepresented	create a personalized education for every student		
	students	<ul> <li>Extensive college and career counseling</li> </ul>		

*Note*. Adapted from "Inclusive STEM high school design: 10 critical components," by E. E. Burton, T. S. Behrend, S. J. Lynch, and B. Means, 2014, *Theory into Practice*, 53, p. 1-8.

# Jasmine: A Day in the Life at Southside High School School Context

Southside High School (SHS), a public secondary school (grades 9-12), is located one hour outside of a major city in the southwest United States. SHS is located in a small, rural community. The median household income is \$24,164 and 22% of families live below the poverty line. Although this community has become increasingly populated and urbanized in recent years, the town retains a traditional feel. The town currently has a population of approximately 8,000 residents and is considered part of a broader metropolitan area. This town, seemingly up-and-coming in many ways, is also the center of 924 students' daily lives at Southside High School.

SHS opened its doors to students in 1951. The campus is made up of two buildings, one of which houses many of the Career and Technical Education (CTE) classrooms. The CTE program is prominent at SHS, and includes programs in wood shop, engineering, and culinary arts. Many

students compete in Skills USA competitions through the CTE program. The Skills USA program is a partnership of students, teachers, and industry, and offers a structured program of citizenship, leadership, employability, technical and professional skills training. The organization serves more than 300,000 students and instructors throughout the United States. The Air Force ROTC, school band, and varsity football programs are also successful and popular with students.

The principal had served in his current position for two years at the time of our visit. The teachers at SHS have a variety of experience levels, comprising a mixture of new and veteran. Two instructional specialists and three guidance counselors also serve on the staff.

SHS offers a number of pre-AP courses, and 85% of the students take these courses to prepare for college. The school has a partnership with King Community College, located 30 minutes from SHS. According to the school website,

SHS has increased our college credit course offerings. Students now have the ability to leave SHS with up to 33 college credit hours. This is an increase from 24 credit hours that was offered last year. We will continue to build a strong working relationship with King College with plans to increase our college credit offerings even more in coming years."

The students who attend SHS make up a diverse group characterized by a high percentage of economically disadvantaged and English-language learning students. As a neighborhood school, students who attend SHS are representative of the community as seen in Table 1.

**Table 1.**Demographic Information of SHS and Southside ISD (2012-2013)

	SHS	Southside ISD	State
African American	10.9%	11.0%	12.7%
Hispanic	42.6%	44.6%	51.8%
White	44.4%	41.5%	29.4%
Economically Disadvantaged	67.7%	77.1%	60.2%
English Language Learner	11.0%	21.9%	17.5%
5-year graduation rate	91.1%	87.6%	90.4%
Tested SAT/ACT	41.7%	36.9%	63.8%

### **Meeting Jasmine**

The most striking thing we notice when we first met Jasmine<sup>2</sup>, a senior of Hispanic origin, is that she is always smiling. Jasmine is known throughout the school, by peers, teachers, and counselors, as extremely affable and helpful. We noticed over the course of the day, that teachers seek her help, and that peers come to talk with her in the hallways, in class, and at lunch. Jasmine's mother sees these qualities in her as well,

My daughter is very... communicative [laughter]. She's very smart... she always wants to be the leader who always wants to be up front, ever since she was young. At school she was always helping and all this, always trying to help others, she always spoke. And when they sent notes to the house they always told me to tell the girl to speak less [laughter]. Because she is very, very much like that, someone who always wants to help

<sup>&</sup>lt;sup>2</sup> All of the names used in this case study are pseudonyms.

others.<sup>3</sup>

Jasmine's plans for the future highlight her helpful nature. She plans to attend college this fall and plans to major in social work. After college, she wants to go to graduate school and become a child psychologist. Jasmine started to become interested in social work and psychology through her CTE program in culinary arts,

Since we did catering for Ms. Smith [in culinary arts], we did a banquet for peer mediation and I was hearing some really great things – that is why I wanted to be psychologist or a social worker. So I did the training and I really liked it. I want to do it for a career.

Due to the opportunity created through the catering activities, Jasmine is now a key member of the Peer Mediation program at her high school. She participates in this program by helping students talk through their differences in a safe and confidential environment, both those who are being bullied and those who are doing the bullying. Her role in the group has extended to one of leadership, conducting a bullying-awareness campaign and training juniors who will take her place when she graduates in May. Jasmine explains that because of her involvement in the Peer Mediation program meeting with students in need, she has become more confident and comfortable asking her teachers for support,

In my pre-calc class, I was afraid to speak up – because I was afraid of being bullied but in peer mediation they said to speak up, so I did and now I am one of the most vocal people in class.

Jasmine's support network includes her mother who continuously encourages her to assert herself and obtain the supports she needs.

As she is very communicative she talks with the teachers of her classes and these days she tells me that she worries about asking when she doesn't understand, or accept when she doesn't understand. But I tell her you have to tell them that you don't understand. It's not bad that you do not understand, how many other students are not understanding the class either.

With the aid of her support network, Jasmine now feels comfortable approaching her teachers for advice and asking for resources. The chain of events that began with her involvement in Culinary Arts, progressed to her leadership in Peer Mediation, and subsequently became her dream to go to college to be a social worker has provided her a strong identity and the agency to advocate for herself. Her current math teacher also noticed these changes in her.

She has struggled. Last semester she struggled a lot but she wasn't doing what she was needing to do—she wasn't taking care of business. But already this semester I've seen a huge difference in her. She's keeping on top of her stuff, she's keeping up on her homework

When Jasmine was a freshman in high school and before the current SHS administration, the atmosphere at Southside was very different than it is today. It included frequent lockdowns and

<sup>&</sup>lt;sup>3</sup> The interview with Victoria's parents was conducted in Spanish. The quotes used in this narrative were translated from Spanish to English on December 10, 2014.

drug sweeps. During that time period, Jasmine told us about a friend of hers who was clearly incoherent after ingesting an illicit substance during a class period with a substitute. Jasmine was concerned, so she told a teacher and they sent the student immediately to the hospital. Afterwards, she was informed that she had, "saved his life." This had a profound impact on Jasmine, changing her outlook on life to be more proactive. These experiences helped solidify Jasmine as the caring, supportive, and assertive person she is today. They also helped her determine early on what she wants to study in college and do professionally, help others advocate for themselves.

It is important to note the school atmosphere at Southside is drastically different now. Jasmine attributed this mostly to the new administration. Principal McCarthy changed the rules and structure of the school when he came to Southside two years ago. Now there are greater consequences for misbehaving, teachers are encouraged to have more open conversations with students about conflict in their lives, every student has to have their ID visible when in the building, and students must sign out before leaving the premises during the school day.

## The Day with Jasmine

#### **Period 1: Fun with Economics**

We arrived at the first period classroom and were introduced to Jasmine outside by the Principal. When the Principal called Jasmine, the class and economics teacher joked that she was in trouble. Students were seated in rows and columns; there were 27 total students in class that day. Student pictures, happy birthday notices, personal notes to the teacher and a caricature of the teacher cover the four bulletin boards at the back of the room. The clock (a joke clock) is set up to run backwards.

As the observers were settling in, the male teacher continued to lecture on economic concepts and used humorous examples to keep students engaged. Jasmine, along with the rest of the class, laughed at his jokes as she took notes. Coach Carter, who appeared to be a teaching aid, came in shortly after the class began. She woke up a student who appeared to be sleeping and brought him a piece of paper and pen. Another student walked in with a late pass and the teacher asked her if she was doing okay. The teachers talk about each other in class – it seems like they are friends. They have a close community.

When the teacher asked if students watched the television show, Amish Mafia, in order to make the economics term relevant, Jasmine looked up and responded yes, which was characteristic of the way she was attentive in her classes and to other people. The student behind her asked what the show was about and Jasmine gave him a 30-second explanation to help him relate. After the lecture, students worked independently on a crossword puzzle until the class period was over.

In this class, 90% of the time was spent on task; 80% was primarily teacher centered, 0% was small group centered, and 20% was spent on individual seatwork. This demonstrates that the class was intentionally teacher centered.

On the second day of economics, students began class by working independently on a worksheet, with three economic questions. The teacher went deeper into the vocabulary concepts discussed yesterday. The lesson consisted of a list of definitions in economics, and the teacher kept students attention by joking with them and asking clarification questions. During the lecture, there were four PowerPoint slides that said, "Section of Assessment" with two multiple choice questions. A few students unanimously said which answer they thought it was. Most students were engaged and taking notes, while a few students were on their phones.

Jasmine turned around and offered her snack to the student behind her. Jasmine asked the student in front of her to see her vocabulary sheet. The student held up her sheet and Jasmine checked that she had all of the vocabulary, smiled at the joke the teacher made. The teacher told the students to finish filling in their worksheets. Jasmine kept looking up at the projected definitions and diligently copied them down onto her sheet. When the teacher asked if the students were familiar with blue laws, Jasmine looked up and said no, then listened intensely as the teacher explained them. The teacher asked Jasmine if she likes shopping in the context of the economy and markets, she said yes and smiled. When a student explained that he has to leave early and won't be able to get the notes, the teacher quietly explained that he has a hard copy of the notes to share with him — it was prepared ahead of time. When the teacher ended class early, the students chat but don't really get out of hand or get too loud. The students respond to the teachers' humor because they joke back with him, and they are all writing diligently, so there must be some assessment in the future that is important to them.

In this class, 91% of the time was spent on task; 82% was primarily teacher centered, 0% was small group centered, and 18% was spent on individual seatwork.

## Physical Education: Strategic Touchdowns - Girl Power

The next class on the schedule was Physical Education; we walked with ease through the halls since they weren't very crowded. We entered a classroom that had desks and chairs organized in rows and columns, and the coach took attendance by calling the names of the students. When the bell rang, the teacher closed the door and marked any students who came in afterwards as tardy. The coach announced they will be playing flag football as they did yesterday. The coach set up the scoring system to encourage the boys to not dominate the play on the field. If a girl scores, it is worth 8 points, if a boy scores, it is 6 points. He explained to the students that they should try to give the girls a chance to catch the ball because the boys usually underestimate the girls' ability to play football.

Students were mainly listening, and some were on their phones, but it was not a major distraction. He noted to the students that you don't get a 100 score for the day if you don't go out for a pass. Students then walked to the gym and formed two lines; Jasmine was first in line for the girls. The coach randomly assigned teams and they put on flag football belts. The teacher said another rule for the game was students can only guard students of their own gender. The game began and students don't seem to be in any type of formation. The teacher used the big stop clock to keep score and time. The students seemed to be enjoying themselves; they were laughing. Both genders were playing pretty fairly and including one another. A player from the other team ran by Jasmine and she reached out to get his flag but misses. At first the teams

seemed to be milling around but as time went on, there seemed to be some momentum building. There was an interception and two touchdowns in the past 5 minutes.

Jasmine joined in laughing and smiling as the play went on. The coach encouraged a small group of girls to move up – Jasmine was not one of them. She was participating, but not overly assertive. A girl from the other team caught the ball and Jasmine made a good attempt at trying to get her flag. The boys were getting really into it – running at full speed and blocking. Jasmine was moving with the crowd. One of the girls from the other team got hit in the face with the ball. When the coach called over to see if she was OK, Jasmine called over and explained that the girl was not hurt. *Jasmine is VERY helpful at all times*. She found a role on the team as a blocker for the quarterback, particularly when there was a female quarterback. The bell was about to ring so the team play ends and the teacher mentioned that tomorrow will be a different version of flag football, ultimate flag football.

Jasmine seemed to have an equal amount of friends who were boys and girls. She was also not afraid to speak her mind. When her team was off of the field, she sat with her friends, 2 boys and a girl and took a group selfie. Smiling the entire time, Jasmine stayed in the end zone so she didn't have to catch a long throw, but was working with another girl to tip in the ball at the end zone. This was effective – and she assisted with a score. Jasmine got a touchdown using this system. Jasmine got another touchdown with that system.

In this class, 95% of the time was spent on task; 15% was primarily teacher centered, 85% was small group centered, and 0% was spent on individual seatwork. This shows that the class was intentionally group centered.

#### Earth and Space Science: Identifying Models

After gym, we left a few minutes before the bell and headed to Earth and Space Science. There were about 19 students in the class – some are absent; the class usually has 24 students. The teacher started to give directions for the day and gets interrupted by the office announcement. The students stand for the pledge of allegiance and the Texas pledge. When the teacher was able to get back to directing the class, Jasmine reminded him that he has explained only three of the five pictures and the teacher picked up where he left off. Students had to draw, label, and color images/pictures from their Earth Science textbook. Textbooks were already placed at each student's desk. The teacher, who was using direct instruction, said students can pick four out of the five picture/images to draw and to draw as big and neat as they can. The teacher also told the students to have two drawings per page, one on the front and one on the back. The teacher hopes the students finish the assignment today; otherwise, they will be working on that tomorrow.

A few students were chit chatting, a few were on their cell phones, but most students were working on the assignment. A student walked in with a late pass. It appeared the student had an appointment with her guidance counselor and that is what the green passes are for. Jasmine sat towards the front and to the right of the class. She asked the boy to her right for an extra piece of paper. Someone knocked at the door, and Jasmine gets up to answer it, but the teacher said that he will get it. Jasmine gets right to work. The teacher was taking attendance and Jasmine offered some information about a missing student when the teacher asked. Students periodically get up

to get colored pencils. Some students listened to music on their phones as they did the assignment. The teacher told a male student to stop texting on his phone. The student put away his phone and started working on the assignment. As Jasmine is working, I asked her to tell me her favorite class and she responds that it is Advanced Culinary Arts.

As the students are working on their drawings, the teacher and another student get into a confrontation about getting started on the work. A female student who appeared to be of Hispanic descent began braiding another student's hair. The teacher told her to stop braiding the other student's hair and to begin working on the assignment. The student said the teacher always picks on her and curses. The teacher sends the student to the principal's office. Jasmine kept to herself and continued to draw the pictures. Jasmine asked students around her about the details to draw with one of the drawings. She hasn't gotten a sufficient answer from her peers, so Jasmine takes her book to the teacher to ask about which picture to draw. The teacher explained which picture to draw and Jasmine showed the other students which pictures to draw and they continue their work.

In this class, 90% of the time was spent on task; 10% was primarily teacher centered, 0% was small group centered, and 90% was spent on individual seatwork. This demonstrates that the class was intentionally focused on students working independently.

On the second day, as we are about to walk into the classroom, the teacher came outside and suggested we set up in the library since that is where students will be working today. While we head to the library, we heard on the loud speaker the pledge of allegiance, the Texas pledge, and the announcements. In the classroom, the teacher told the students the assignment for the day. For the assignment, students had to search four current events independently on computers. The current events are the measles outbreak, natural gas transportation through the area, meningitis, and the asteroid near earth. For the assignment, students had to note who or what the current event was about, where it took place, what their source was and how they found it. Some students appeared to be working on the assignment, some were talking amongst themselves, and others were on their cell phones. The teacher periodically walked around to check on the students' progress and assisted students as needed. The students continued to work on the same assignment for the rest of the class duration. When the bell rang we moved to the next class, Advanced Culinary Arts.

In this class, 90% of the time was spent on task; 10% was primarily teacher centered, 0% was small group centered, and 90% was spent on individual seatwork. This demonstrates that the class was intentionally focused on students working independently.

## **Culinary Arts: Sustaining the Community**

Before the class started, Jasmine showed us pictures from a past culinary competition. She made a cake themed from the movie "Up." Another student made a cake that was cinema themed and said now playing "Up" and a Victoria Secret Pink themed cake. Several times during our visit, the teachers referred to Jasmine as the "cake decorator" and we can see why she has that identity, because the cakes looked very professional. The teacher hasn't arrived to class yet, so another teacher comes in and shows the students the recipe for the meal they're going to be preparing.

The students are going to make Frito pie, catering for the teacher lunch for tomorrow. The students make the teachers a lunch every month. There were six students and Jasmine is a leader here. The teacher was out getting supplies so they try to organize things themselves. They decided to make six times the recipe and split up the work. One student took the lead and began converting the recipe to be appropriate for 18 servings. The other students helped her convert by using their phone calculators.

The teacher came in and helped them reorganize so that the preparation would be ready to be heated up for the next day. The teacher was concerned the students weren't following the recipe properly. The teacher said the sour cream was supposed to be used as a garnish, so it didn't need to be put into a bowl. She told the students to stop what they're doing, to put their hair nets on and to take off their jewelry. The teacher was going over the recipe with the students to make sure they understand what they're doing. Then one student put back the sour cream, most students started putting together the spices for the Frito pie at their individual stations, one student cleaned her station, and Jasmine was running the dishwasher. Jasmine has her own uniform with embroidered name and hat. While they were preparing the food, Jasmine read the recipe and is discussing what they are doing. Students were using large kitchen knives to cut up the garlic. On the stove in a large pot, the students mixed beef, kidney beans, garlic, and tomato paste. Each student was doing this independently at their station. In a smaller bowl, the students were heating up beef broth on the stove. When that boiled, the students added the broth to the bigger pot. This was done without explicit instruction. Each student continued to mix the spices, kidney beans, tomato paste, and beef on the stove.

Jasmine was overseeing and checking the preparation of the spices for her station, and working with the other students to check if the amounts of spices were accurate. She retrieved some garlic from the refrigerator and another student was chopping it. This class was the advanced class and meets for two periods; the intro class meets once. This was Jasmine's third year while other students in the class have only finished two years of Culinary Arts. Some students' meat had browned and they were done using the stove. The students were told to leave the meat at a simmer and the meat will sit for about an hour on the stove top. Students began to clean up their work stations, by wiping down the counters, and rinsing off the bowls they used. They then loaded them into the dishwasher. Other students continued to mix the meat on the stove. Jasmine was still cooking her meat on the stove. Students who were finished cleaning sat at their stations looking at their phones or talking amongst each other. Jasmine was the last to finish on the stove. She began cleaning her station. The other students sat at their stations waiting for the bell to ring. Jasmine made sure her station was clean, rinsed her bowl, loaded the dishwasher, and then ran it. She looked around checking to see if everything was cleaned off before leaving class.

In this class, 100% of the time was spent on task; 10% was primarily teacher centered, 15% was small group centered, and 75% was spent on individual seatwork. This demonstrates that the class was intentionally focused on independent work.

#### **English: Analyzing Edgar Allen Poe**

The next class is English 4, for seniors. Chairs were in rows and columns. Students were mostly sitting in the back –half of the room was having small group conversations and the other half

(with Jasmine) was listening and responding to the teacher. The class started by looking at page 9 – two passages – one from the House of Usher and one from Fulsom. While they were reading the passage, they were looking for and circling the dictation and details, "the dittles." Most students were working on the assignment, but several had their heads down. The teacher had a direct teaching style and told a student to take off his hat and reminded the other students to stay on task. Jasmine had all of her work in front of her and began to work, she asked another student a question, saying "I'm afraid to ask [the teacher]" she raised her hand and he asked her to save her question until some of the students who don't have any materials get them. She asked her question which is "I missed your directions" for this part of the assignment. The teacher explained to underline anything that they thought conveyed the authors tone.

The teacher was walking around checking on students. He reiterated students read the directions and be quiet while completing the task. A Brazilian American student remarked she doesn't understand the passage fully. The teacher came over to help her and suggested she use the dictionary in the classroom. The teacher said he is available after school for additional help if she needs it. Jasmine started to highlight her work. She was sitting around three girls – one in front, one to her right and one behind her. She also talked with the boy behind her. She jokingly told her friend to let her focus and laughs.

The teacher started to go over the worksheet with the class to see where students identified dictation and tone. He posed questions to the students. Jasmine raised her hand to say what she identified as detail and dictation, "dark, dreary, melancholy." The teacher approved, "That is really good." The teacher asked what a "Turn is" – Jasmine made a joke in Spanish and the three girls that sit around her laugh. The teacher explained the deeper meaning in the passage which is ignorance and stereotype. The teacher mentioned something that Jasmine said earlier and emphasized her point. Jasmine asked if nocturnal will be one of the words – the teacher engaged her and asks if she thinks that it is a neutral term or if it dictates tone.

The students had a long outline that had been copied for them – and he asked them to go to page 12 of the packet. The teacher started discussing syntax. Some students had side conversations and the teacher talked louder to try and quiet them. A student had a question about sentence length and run on sentences. The teacher clarified for the student and said for this class we are going to "shake up sentence patterns." The teacher continued lecturing on sentence structure, more specifically on independent and subordinate clauses. Jasmine asked the difference between periodic and loose sentences.

By half way through the class, all of the students were quiet and listening – the teacher was asking them to read passages from the handout. The teacher continued to go through the worksheet and came to a passage from Charlotte's Web, and asked a student to read from it. After the student read the passage, the teacher asked about details and dictation. Jasmine provided an answer to the question the teacher posed. Another student read more from Charlotte's Web and then from a Huckleberry Finn passage. A student asked if there were racial slurs in Huckleberry Finn, and the teacher acknowledged there are but emphasizes they're just looking for details indicating tone. The teacher encouraged the Brazilian American student to read a passage aloud. Some students laughed while she was reading and she became a bit discouraged, but the teacher encouraged her and reinforced she was doing a good job. When she

finished many of the students clapped and Jasmine said "we are so proud of you" showing her support for her students. The teacher said there is going to be a vocab quiz tomorrow. Shortly after that the bell rings, we moved to Pre-Calculus which was in the classroom next door.

In this class, 91% of the time was spent on task; 73% was primarily teacher centered, 0% was small group centered, and 27% was spent on individual seatwork. This demonstrates that the class was intentionally teacher centered.

## **Pre-Calculus: Rising to the Challenge – Girl Power Part 2**

In Pre-Calculus, students were playing a review game called grudgeball for their exam tomorrow. Students sat in groups of 3 and 4, which was a comfortable arrangement in this class although all of the other classes were organized in rows and columns. The teacher explained the rules for the game and if a team got a question right they could erase an X from two of the other team's boxes or erase two X's from one team. Also, when the team got the problem right they had to work it out on the white board. There were five groups in the class, 4 groups of 3 and 1 group of 4. The teacher assigned each group problems and talked about a cheat sheet plate they could use to write the formulas down and bring to the exam. On the side board, there were ten X's written under each of the 5 group names.

Students seemed engaged and were working collaboratively together. The teams were working on the problem together and the teacher was helping one group. The teacher continued to walk around the room to check on the other groups. Jasmine asked if they could form alliances, again strategizing like she did in Physical Education. Jasmine asked if the two X's had to be from the same team or if you could erase one from one team and one from another. She explained the strategy to her teammates and they were brainstorming from whom to take the X's. The teacher showed support for the students by explaining to them that if they worked together and still couldn't solve the problem that she would come to the group and guide them appropriately. Groups were interacting and teasing one another about whose X's they were going to erase. Jasmine was working with her group (all girls) to answer the question that was assigned to them. Jasmine's group called the teacher over to check their problem; they got it right and they cheered and said, "Girl Power!" All the groups got their problems right. Two students high fived each other when getting an answer correct. When the other students got problems correct, Jasmine's group also cheered.

It feels like the students, although in a competitive game, all worked to support each other in this class. One student was supposed to go to the board to write their answer after the problems were checked, and Jasmine was the one from her group to go up to the board. After everyone wrote their solutions on the board, Jasmine took a picture of all of the answers on the board so she had the written answers from which to study for the test tomorrow. The teacher assigned another problem to the groups and the game went on another round. Again, Jasmine's group solved the problem correctly and got to advance in the game. Students took pictures with their phones of the problems on the board. The games went on for one last round and all the groups answered their problems correctly, but the bell was about to ring so wasn't enough time to write them on the board. The teacher said they still needed to take their test tomorrow, but when everyone was

finished, they could continue the game because she enjoyed the way everyone was working together.

In this class, 100% of the time was spent on task; 9% was primarily teacher centered, 91% was small group centered, and 0% was spent on individual seatwork. This demonstrates that the class was intentionally small group centered.

The school day was over, and Jasmine went to her after school activity, Peer Mediation. Jasmine mentioned that she was close to some of her teachers, but she was most close to the advisor for Peer Medication, Ms. Orchant. Jasmine only joined the Peer Mediation group last year as a junior and it has very much changed the way she interacts at school. During an interview, Jasmine mentioned that she was very quiet in Pre-Calculus at the beginning of the year, but she heard that in Peer Mediation, you should speak up for yourself. She took this to heart and started to ask questions in Pre-Calculus, although she felt that she might be bullied for doing so. Jasmine learned that the other students learned during the times she asked questions, and felt even more empowered. Jasmine mentioned to us that she has a presentation about an anti-bullying campaign for the school board the following week, and she had flash cards to help her memorize her speech. During the meeting today attended by eight Peer Mediators, Jasmine was the speaker – her advisor told her that she was running the agenda. Jasmine began with leading the pledge and explained the agenda for the day. Then she proceeded by standing before the group and practicing her speech based on Kids against Bullying. She used the flash cards she made to prompt her speech while still making eye contact. She made salient points about people's role in bullying – both active and passive – and that bullying is a behavior that can change, so we should work to do so. She offered solutions to bullying situations in her speech and the group responded very positively to her performance by cheering and giving her open praise. Jasmines lead the group in the next activity, making posters for the rooms where they do the mediation. After they were finished, Jasmine was off to the late bus to go home, make dinner for her mom and dad, and study for the tests to be held tomorrow.

### **Conclusions and Implications**

### What did Jasmine learn?

The purpose of this paper was to capture the day in the life of a student at a comprehensive high school in order to describe how the critical components of a school offers opportunities to students. Southside High School offers prospects to students in many different domains, such as Career and Technical Education programs, core subject matter education, sporting teams, and after school programs. As high schools often do, Southside High School gives students a smorgasbord of ways to try out different identities, and when students find something that resonates with them, teachers guide students in the development of their confidence and agency. In Jasmine's case the CTE program in Culinary Arts gave her a chance to see a variety of after school activities through the catering business and she found Peer Mediation.

## What happened from a social, emotional, and developmental point of view?

The teachers at SHS understood that their students are more than homework-doers or a score on a state assessment. SHS teachers know their students as whole people, seeking ways to be self-actualized. Jasmine's teachers noted that she was helpful and caring, and guided her toward activities that would nurture these qualities. Jasmine's path from CTE to Peer Mediation to studying in college to be a social worker was not an accident. The school offered many opportunities and teachers counsel students, whom they know well, to productive activities. Programs at SHS give students the skills that are useful in building a future career.

#### Where Will This School Take You?

At SHS there was a clear expectation that students should get an education beyond high school. SHS offers opportunities to try out different fields and explore career interest options. With a few community resources, they could go ever farther. Students at SHS know college is in their future and how to fill out a FASFA form, but not all of the students may know the ways college may challenge them to be independent learners or how to handle the freedom that college offers. In addition to the current programs SHS offers such as having college evening courses held in the building for Juniors and Seniors and creating more rigorous STEM courses, SHS could reach out to the community and have STEM professionals work with teachers to develop and help assess projects that are authentic to professional STEM experiences. In doing so, students can have even more opportunities to experience contributing to communities and finding careers that give them purpose. Students would be able to work on teams and see how learning how to learn is not just a high school activity, but is a life-long endeavor.

Further, community college faculty could co-teach or teach classes located at SHS for dual credit (credit for a high school class and a college class). This could offer at least two advantages. For one, it will show students in a tangible way that they can be successful in college classes. Perhaps this may convince students who may not otherwise pursue college to enroll. Secondly, it would be a good recruiting tool for the community college because students would feel comfortable attending since they already have been successful in the course offered at their high school.

SHS systematically gives students opportunities to explore different fields and to turn passion into careers, as evidenced by Jasmine's experience. The school can build on these experiences by tangibly bridging skills needed for high school and skills needed for college. SHS can create experiences where college is not just an exciting opportunity and expectation, but college is familiar to students because it was introduced in high school. In these ways, SHS can extend its already vast and enriching opportunity structure.