

Amanda Pellerin: The following interview is conducted as part of the Georgia Institute of Technology's Everyday Georgia Interview Project. Today is June 28th, 2018. The interview interview is taking place at Griffin Middle School in Smyrna, Georgia. The interviewer is Amanda Pellerin and the interviewees are and just go around and say your name.

Melissa Barlow: Melissa Barlow.

Nabeel Faridi: Nabeel Faridi

Tracey Santos: Tracey Santos.

Shane Crider: Shane Crider.

Emily Crider: Emily Crider.

Jackson Williams: Jackson Williams.

Duncan Santos: Duncan Santos.

Amanda Pellerin: Perfect. Um, again, I want to say thank you for participating in this project. Uh, we're gonna because we're interviewing multiple people at the same time, I'm just going to ask that before you say any of your statements. State, say your name first, you know, this is, and then your first name is fine. That way it will help our transcription process, um, a lot. So, um, so we're gonna start with some background contextual questions just to understand a little bit about y'all. Um, so this is a question for everyone. Can you tell me where you were born and where you grew up?

Melissa Barlow: This is Melissa Barlow. I was born in Atlanta, Georgia at Georgia Baptist hospital and I grew up in Vinings.

Nabeel Faridi: This is Nabeel Faridi and I was born in India, New Delhi and I grew up over there too, but I just moved here for about four years ago.

Tracey Santos: This is Tracey Santos. I was born in Silver Spring, Maryland. Grew up in Buoy, Maryland and have lived in Atlanta for 25 years.

Shane Crider: My name is Shane Krider. Uh, I was born in Germany. Uh, I've lived in Georgia pretty much all the, about two or three months in my life.

Emily Crider: this is Emily. I was born in Atlanta, Georgia and I've been, I've grown up in Smyrna.

Jackson Williams.: Jackson Williams. Been born in Atlanta and grew up in Smyrna.

Duncan Santos: This is Duncan Santos and I was born in Smyrna and grew up in Smyrna.

Amanda Pellerin: Um, this is for Melissa. Um, can you please tell me about your education and your career experiences?

Melissa Barlow: Yes, this is Melissa Barlow, M. I went to the lab at school and graduated from there in 1980. Then I went to the Clemson University, Clemson University and I ended up majoring in that had B.S. in psychology. Um, after I majored in psychology I didn't know what to do with it, so I went to graduate school at Jacksonville State University and I got a M.S. in Clinical Psychology and then I went to work for the Department of Defense. I worked at Fort Stewart and Hunter Army Airfield as a counseling psychologist. And I did that for 11 years and quit in August, '01. And I came back home to Atlanta and I went to school at Mercer University where I got my i earned, my initial certification to teach science and ELA. I know it's a weird combination but it works. Um, and then I um, did my student teaching here at Griffin Middle School and the rest has been history. I started working here in '03. And then in '07 I went to Lincoln Memorial University where I got my specialist degree and the administration and supervision.

Amanda Pellerin: What is ELA?

Melissa Barlow: English Language Arts.

Amanda Pellerin: Okay. Interesting. So you are teaching what subjects? At Griffin?

Melissa Barlow: I teach Physical Science. I teach the high school classes, um, to the eighth grade students and the Advanced Consonant Physical Science.

Amanda Pellerin: What's, what is Physical Science?

Melissa Barlow: Physical Science is a combination of Chemistry for the first semester and then Physics for the second.

Amanda Pellerin: Okay. All right. This is for the um. Oh, I'm sorry. I also see that you earned says you earned your gifted certificate and your coaching endorsement.

Melissa Barlow: Right.

Amanda Pellerin: What is a coaching endorsement?

Melissa Barlow: It's an academic coach, so not this past year, but the year before I was part time teacher and part time science academic coach.

Amanda Pellerin: Okay. Is that like a tutoring or.

Melissa Barlow: No, it was um, working towards STEM.

Amanda Pellerin: Okay, with students or with other teachers?

Melissa Barlow: With other teachers.

Amanda Pellerin: Gotcha. Okay. Um, that's great. That's great. Um, way to uh, kind of advocate and support each other as teachers. Right. Being the academic coach like that. That's awesome. Um, okay. This is for the students. Can you tell me what your favorite subject in school is and why?

Nabeel Faridi: This Nabeel and my favorite subject in school is science and math because with math I'm just, okay, let's go with science first. Science, I like science because there's many opportunities to do experiments and make models and other things. Because just two years ago when I was in Miss Barlow's class we made, we made house's, electrical houses and we added the electrical current through those houses. And then math. I like math because it's just that kind of subject that you just get along with it.

Amanda Pellerin: Is there a particular branch or like a part of math that you liked, like geometry versus, um, versus Algebra versus. Or is it all of it that you like?

Nabeel Faridi: I just like all of it. Yeah. And what grade are you in?

Nabeel Faridi: I'm in. I was in ninth grade moving to 10th now.

Amanda Pellerin: Okay, great.

Emily Crider: This is Emily and my favorite would be I guess ela because I like to write poetry.

Amanda Pellerin: Okay, great. What kind of poetry?

Emily Crider: I like just to write about my personal life.

Amanda Pellerin: Do you journal?

Emily Crider: No, no, I don't. I don't like journaling.

Amanda Pellerin: It's hard to get into the routine sometimes in that. That's great. Um, what grade are you in?

Emily Crider: I'll be a sophomore next year. Okay.

Amanda Pellerin: But this Griffin is a middle school?

Melissa Barlow: Correct. Okay. So the, they were eighth graders when they participated. I see. Okay, great. So we had that. We had all three grade levels participate and I went to bring them back.

Amanda Pellerin: Yeah. Okay. Great. Jackson,

Jackson Williams: I'm sorry.

Amanda Pellerin: So the question is, what is your favorite subject in school?

Jackson Williams.: This is Jackson... Okay. This is, this is Jackson and my favorite subjects in school is business and technology because it's a fun class I feel like with the, um, where we are right now and visited and technology's got to be needed in the future.

Amanda Pellerin: What is that? That's not a course I was familiar with from a primary school.

Jackson Williams: So like an ELA or math courses you're saying?

Amanda Pellerin: No, I like what, what do you learn in business?

Jackson Willams: Oh, um, well you mainly on the computer. Any losing, learning about the skills you need in business and like, um, for example, I got Microsoft word certification but it showed that I had mastered all word and yeah.

Amanda Pellerin: Okay, great. What grade are you in?

Jackson Williams: Going into ninth.

Duncan Santos: I'm Duncan Santos and um, my favorite subject is math because my mom mostly works with like computers and technology and she like really loves math, so I got it from her.

Amanda Pellerin: Is there any particular type of math you'd like more on?

I just like math in general because it comes easy to me.

Amanda Pellerin: Okay, great. What grade are you in?

Duncan Santos: I'm going into ninth.

Amanda Pellerin: Okay, great. Alright, this question is back to Ms. Barlow. Um, what are your interests and/or hobbies?

Melissa Barlow: My interests are running. Um, I enjoy talking to people. I'll just go up and talk to anybody because I like learning about people. Like I, I didn't know you were from Germany. Um, I like history a lot. Um, I just like learning

Amanda Pellerin: great.

Melissa Barlow: And you liked Clemson? And I like Clemson. Sorry. I hope to get the game by the way, in the fall. Hope to see, I do like all sports. I should probably say that. Football particularly. Oh, football, football and baseball.

Amanda Pellerin: Baseball makes sense? Yes. Okay. Back to the students. Um, what career would you like to have one day?

Nabeel Faridi: this is Nabeel and one day I would like to be a mechanical engineer of some sort, either with computers or other technological technologies.

Emily Crider: This is Emily and I would like to be a pediatric ER nurse.

Jackson Williams: Oh, this is Jackson. And I like to be something with computer science.

Duncan Santos: This is Duncan. I'd like to be um, mostly more like tech technology working with like a more like a military defense.

Amanda Pellerin: Okay. And this is for everyone. Can you please describe a significant person or event which influenced who you are today?

Melissa Barlow: This is Melissa. I'm going to have to say it's my grandmother. She's a very compassionate, loving woman. Had an enormous amount of faith and she just um, was always positive and caring and I just truly I miss her,

Nabeel Faridi: This is Nabeel and I would like to say a few people and inspired me. That would be my middle school teachers like Ms. Barlow, Ms. Fights and the other other teachers that I had because they made me focus where I want to go and what I want to do. And then they also helped me with my, the high school classes. Ms. Barlow helped me study and she was pretty um, good at teaching.

Tracey Santos: Thank you. This Tracey um, my father actually way back suggested strongly that I consider entering computer science in Undergrad. So I have a B.S. in computer science while achieving a va in French and then um, I went on to get a master's in computer science, so I have at Clemson and I have been supporting stem in schools since kindergarten through PTA and parent involvement. Um, so as part of the PTA we made a big push and supported financially and volume through volunteers, a lot of these kinds of programs. So I've been an advocate of Ms. Barlow and any teacher who is really pushing a lot of stem in schools to get all the students educated.

Amanda Pellerin: Do you, are you working in the field?

Tracey Santos: Yes. Okay. Yeah, yeah. Twenty six years. Yeah. Okay. Yeah. So my company, um, I was at one company for 25 years. This is now a year and a half in the new company in Vista com and they actually were interested in support of the project. They sponsored our tee shirts and sponsored our celebration at the end of the challenge. So nice that it was real nice.

Amanda Pellerin: Yeah, that's great. Yeah.

Tracey Santos: We're department of Defense Contractors and so we support war fighter. We do satellite communications, technology and cyber defense too.

Amanda Pellerin: Great.

Shane Crider: It's Shane. I'd have to say my grandfather's, I had several. Um, they taught me the balance between hard work and play and some good work ethics over the years, so I'd have to give them credit for my roles in life these days.

Emily Crider: This is Emily. I'd have to say my eighth grade year because like, all of my teachers are like always pushing me. Like even if I couldn't do it, especially Ms. Fights because if I couldn't do it she would be like, keep going with it, keep trying, keep trying. And I ended up getting the problem right.

Amanda Pellerin: What, um, where did you feel like you needed to be pushed?

Emily Crider: In math because I kinda just gave up.

Amanda Pellerin: Okay.

Jackson Williams: Um, this is Jackson and event that I look back to that motivates me is I gave food to the homeless shelter and it like showed me that I realized I needed to take advantage of what I have and be grateful.

Amanda Pellerin: Yeah. Great.

Duncan Santos: So this is Duncan Santos and um, I think my mother is pushed me like to be the person who I am and she, um, she pushes me forward and make sure that I can do it and be the best that I can be.

Amanda Pellerin: Great. It's very nice. I appreciate especially the students taking that question on. I know that's a big question, um, early in your life. So I'm glad. I'm impressed that you all had responses right away. That's great. Um, okay, now we're gonna kind of move into the Georgia tech related questions and the program. Um, I had this written down for Ms. Barlow to talk about, but I think maybe you as well as the parents can talk about, um, how you initially became involved with the Georgia Institute of Technology.

Melissa Barlow: Okay. So this is Melissa and it was in the summer of 2016. I got an email from our principal, Mr Gillihan saying that the Georgia Tech Research Institute embrace or collaborating on a stem project and was I interested and of course he got an immediate response. Of course I am. I'm all about stem, of course. And, you know, just knowing that the Braves were coming and it was going to be baseball related. I, I could not wait to do this. I'm really didn't know anything about it until, I guess really when we started school I was just um, trying to get some participants at the beginning of the school year and then we, at first we thought it was going to be for eighth graders and then they told us it's going to

be seventh and sixth as well. They went to all three grade levels. So we went and got recruited and we had enough interest that we had two teams. Um, and then we went to the STEM night at Turner Field, which was a lot of fun. And they unveiled the Tomahawk launcher um, or tosser, excuse me. And um, that was pretty cool. They actually demonstrated it for us and everything. And then we stayed for game. And then myself and Mr. Scotchlas, he's another teacher that also helped with this program. Um, he and I went to a professional learning down at the Georgia Tech Research Institute and we actually had to put one of these together and I have to say Mr. Scotchlas was a brave man because I almost hit him in the head a few times while building this thing. Oh my goodness. It was harder than, you know, it was hard to build it. But anyway, I never did hit him. Thank goodness. Um, and then we've got our launchers I think in November, December timeframe, and then they went to work building it and they did these math modules and they even were here on a Friday night, the Friday before spring break calling their math teacher to ask her how to work out a problem. It's not a lot. That was pretty impressed. We're here Friday night eating pizza, collaborating on all of these modules that they had to do. And then, um, let's see, the competition was May 1st, I believe. I think so. And that was down at Georgia Tech. Um, we were supposed to be on the field but it was raining and um, so we competed.

Amanda Pellerin: You're supposed to be on Grant Field, uh football? Well we made our, the baseball probably, but we ended up in the gym and swim the swim arena, like the CRC building.

Melissa Barlow: Yeah. Okay. And um, it was really fun. They had the braves drum line was there and it was, it was just an awesome experience I think for the students. Um, they get to practice their interviewing skills. Um, each one of them had a certain job while they were building the Tomahawk tosser they held each other, each other accountable. And like I said earlier, it was all three grade levels working together. Problem solving.

Amanda Pellerin: Um, Tracey maybe can you talk a bit about the, this involvement and how it relates to the PTA work?

Tracey Santos: So, sure. So the PTA supports students and parents and interests of the school. And so when we heard about the problem, the project, of course we were immediately um, excited about it.

Amanda Pellerin: And how did you hear about the project?

Tracey Santos: Through Ms. Barlow. Because we've been buddies just through PTA, just when I, when we started in sixth grade, when we started in sixth grade, we held a stem fair and so we were introducing the students to different stem related companies and experiments and things like that. And so from then forward we just bonded immediately over different kinds of things and um, she asked me if I was interested and I told her, of course, and Duncan's a baseball player and so was Jackson, so they were immediately drawn to it as well. So I was able to take

off work and you know, adjust my schedule to be here pretty much every Wednesday to support the club personally. And then through the Pta we were able to fund some of the activities via donations. So we kind of funnel the money through the PTA, the company donates in support of the club. And so we facilitated that. So we had the team t-shirts so that we kind of showed up as on competition day ready to represent. Um, the students participated in the design of the tee shirts and then we had a grand celebration afterwards at the Varsity. At the Varsity.

Amanda Pellerin: Oh, fun. Yeah.

Tracey Santos: So right after competition, so that was nice. And then um, you know, it's an objective of the school to support stem incorporation into the schools through competition. So this was one of the things. PTA is a big support rep as well. So yeah. Great. And how about um, your first introduction?

Shane Crider: So my first introduction, this is Shane was my wonderful daughter, Emily here come running out to the truck and said we have an emergency, can you come quick? So she got me in the door and the uh, so called emergency was they were having issues with a bolt and a nut getting it put onto the launcher. And with my maintenance background I do a lot of mechanical work. So, uh, I started helping and started working with the kids to help the actual building process, the project. So great.

Melissa Barlow: We're good with simple machines. The basics of engineering.

Shane Crider: Correct.

Amanda Pellerin: So my understanding is that the GTRI was kind of the catalyst for this project. They came up with the idea and send emails around to the different schools, uh, school administrators who then contacted, sent out to the relevant teachers that they had on staff.

Melissa Barlow: I think it was actually they, this is Melissa by the way. I think they actually send it to our stem coordinator for all of Cobb County. Dr. Sally Krill. Okay. I think that's where. And then she's awarded to five of the schools in Cobb County because it was five. Um, it was five Cobb County schools and I think five Fulton County schools that participated and GTRI what they did was they actually designed and manufactured the launchers and held the Po

Amanda Pellerin: and then had the professional learning training so that the teachers could learn how to build these things.

Melissa Barlow: Right.

Amanda Pellerin: And then you bring back your prototype and also plans to work with the students. Or did the students come up with their own kind of engineering roadmap on how to make these.

Tracey Santos: So in order to make the competition, this is Tracey, in order to make the competition level after they decided it was very complex to design and build Georgia Tech GTRI supply the kit boxed I see just from scratch. So they've brought basically a box full of bolts and nuts and, and uh, boards, they had to pop out every individual piece so they had to go through the project based on a set of plans. So they had a nice two foot by three foot plans with no other instructions strictly plans. So it was basically like a, a nice mechanical engineering design drawing set. Right. But no how to's, no what first, just here,

Amanda Pellerin: Here's the material and go. Right, okay.

Tracey Santos: So based on their experience, they kind of guided them, but the students really worked through whole problem their self. Okay. Themselves.

Amanda Pellerin: And it was all after school that none of this was managed during school hours.

Melissa Barlow: Right. Oh the club, yeah. This is Melissa was, it was, um, Wednesdays and Fridays and a couple of weekends I believe.

Amanda Pellerin: Okay. So for the students, I want to know what made you interested in participating in the project? Do we want it? Let's start with Duncan this time.

Duncan Santos: This is Duncan and uh, since I played in baseball I was pretty interested in like um, math at the time as I am now and uh, like I thought that would combine both of them, what I like am interested in most, so that would be an interesting way to like experience baseball and math together at the same time.

Amanda Pellerin: Kind of combined two things that you liked a lot. Okay.

Jackson Williams: My name is Jackson and. Wait, this is how I got into it.

Amanda Pellerin: Yes. Well, what made you want to join the project?

Jackson Williams: Well, I just, like, my math teacher Ms. Fight. She was like, I'm pretty sure she's involved in it. Oh No. Well I liked math also and I like baseball and I have nothing to do in the afternoons. So I was looking for something to do and I ran into the club.

Amanda Pellerin: Okay. Just by happenstance or did you hear, did you see them in here tinkering away or did you hear about it from somebody?

Jackson Williams: I think I heard about it from somebody.

Amanda Pellerin: Okay, a friend or a teacher?

Tracey Santos: This is Tracey. So we needed more seventh graders and Duncan and Jackson are good friends. Okay. And so they played baseball together for a long time, so we knew he was good at math, so we added him to the list of possible volunteers and recruited him specifically and asked him if he was available and interested in.

Amanda Pellerin: That has to feel pretty good, right? Somebody recognizes your talent and your ability and says please come join the team. That's great.

Jackson Williams: Yeah.

Amanda Pellerin: Yeah. All right. Emily,

Emily Crider: This is Emily. Um, I was in Mr. Scotchlas' class for first block and he was like talking about it and I was like, I can ask my parents because he knew that I played, I played softball and he was like, we're doing this baseball on. Jerry kept trying to get me to do it and even to do it, I was like, I don't know if I want to do it because I thought it'd just be like I didn't think they were going to be any other girls in it and I didn't want to be the only girl. And then I found out like some of my other friends were in it, like Kaitlin Campbell and stuff like and then, and he, he got on his phone and like gave me the registration thing and said fill this out and this kind of made me do it. And I ended up doing it and brought my dad into it.

Amanda Pellerin: Good. Yeah. Good thing you had backup for everyone. Um, did you feel like you mentioned that you felt maybe hesitant because you didn't want to be the only girl. Um, but did you also feel hesitant because you've mentioned that you had some struggles or challenges in math? Like did that make you.

Emily Crider: I was actually I didn't get, I wasn't bad at math until the second semester because of Algebra and stuff like that. But like the beginning of math I was good and that's why Mr. Scotchlas was wanted me to do it because I was actually pretty good at math stuff in his class.

Amanda Pellerin: Okay, great. Do you feel like doing that project helped kind of give you more confidence in that area too or?

Emily Crider: Yeah.

Amanda Pellerin: Okay, great. Maybe you.

Nabeel Faridi: So, um, this is Nabeel, so back in seventh grade I was in the robotics team and so I wanted to do something similar but not exactly the same thing. And then Ms. Barlow came up because I was in their class. Um, third, third block, second, second block. I was in her class, second block, so she was just going over the

stuff and she was asking other people's too. So then she asked me about it and I was interested in it. So I thought it would be good to do stem this year.

Amanda Pellerin: How did y'all feel about, and um, Ms. Barlow, you can talk about this and the parents as well. What have you experienced from the outside working as a team on this project?

Tracey Santos: I think it was, this is Tracey, I think it was a good diverse team actually. She ended up recruiting a lot of different people from different backgrounds and different interests, different strengths. So it was, they definitely had leaders and they took on challenges, but they work together really well as a team and it was interesting to observe and how they collaborated clearly they built two awesome launchers. So success.

Melissa Barlow: And this is Melissa. It was kind of interesting also. Um, so a couple people, Jackson and Duncan have said that they play baseball and from the bill, the STEM night at down at the Turner Turner field. That was his first baseball game.

Nabeel Faridi: It was, I've never seen a baseball game before.

Amanda Pellerin: What'd you think?

Nabeel Faridi: It was really cool.

Amanda Pellerin: Yeah. Yeah. Can you, um, this is for everyone as well. Can you kind of tell me a little bit more about the competition? Like put me really back in that place, like what was the crowd like? Um, I guess you did the. Wait, let's back up. You did the competition at Georgia Tech, um, you just, you saw the demonstration at the, um, at the stadium. Um, so when you were at the competition though, I still want to know like how it felt, how many people were there, what it sounded like, um, all those things kinda like really put me in the, in the space.

Melissa Barlow: Okay. This is Melissa. Um, it was, it was fantastic. I thought I did not know that they going to have the braves drumline there. Um, and it ended up being seven teams. So it wasn't the alternate the teams, it was seven of them. Um, I don't know, I just thought it was great. I mean, I think everybody was energized and excited about it. I know our students were running to what? What were y'all looking at out, at that window.

Jackson Williams: I believe there was a pool.

Melissa Barlow: Oh a pool. Okay. I know they kept running up to this one window and looking at it. Um, but it was just, it was just an exciting day. Just, you know, like I said with the braves drum line there um, the competition. I think everybody, there's very competitive people, but people were also very nice in helping each other. I went back and looked at some of the pictures this week and I saw one of our, our participants was over helping another team with their machine, so I thought I

was like, oh, I don't remember that, but that was so sweet of them. They was actually helping somebody.

Tracey Santos: Why don't you guys describe the two different events to do for parts of the events?

Duncan Santos: So the first part we did was the um, the launcher. We actually got to launch it and the whole purpose was to shoot it at a target. So we had to like adjust our uh, launcher into the certain angle and be able to like pull it back to a certain distance to be able to launch it perfectly. Trying to get into the target.

Amanda Pellerin: Was that hard?

Duncan Santos: Oh yeah. It was pretty difficult. Uh, but we, we got pretty close. Someone actually hit the bucket. Okay. And that was, that was pretty.

Amanda P: Do you remember how far away it was?

Duncan Santos: A, they changed it a couple times in the different things. So that wouldn't be set and you could, uh, you would have to change it and you wouldn't have to just keep it in the same place and try and fix a few little things that were wrong.

Emily Crider: This is Emily. I was like, I really did like the interview part a lot because no one else really wanted to do it. Um, but the interview they would ask us questions about how we would, how we made the launcher and how like how we had, we had to take a journal on everything that we had done and with my team, our journalist had quit so we all were like trying to figure out who was going to do the journaling and like we ended up degree agreeing that we can all do it. So we had to explain that like everybody ended up explaining their part of it and it was funny because you're interviewing each other trying to like prepare for it because we didn't know what questions would be, would be asked.

Amanda Pellerin: What was your part?

Emily Crider: I kinda did like every helped with everything cause we just bounced around a lot.

Amanda Pellerin: Okay.

Emily Crider: I did like I was helping, I was helping like in certain criterias in the group because of my dad because he was helping everywhere, so it's kind of just like following him around.

Amanda Pellerin: Okay,

Nabeel Faridi: This is Nabeel. Okay. So, um, uh, I was the team leader of the score, Stuart's team and during the competition we had three launchers. I mean uh, three test

launchers like the participants from our team and at the start we got a bit conflicted because there were three of them. Everyone who's deciding who shoots, who's gonna decide where to shoot. And then the first that believed the first launch we messed up severely, but after that they all worked together and then they hit the bucket once and then they were really close to getting it in the bucket. The ball.

Amanda Pellerin: Did you all win?

Nabeel Faridi: I, no we did not win.

Amanda Pellerin: Did someone win? Was there a, there a winner at the end? I don't think.

Melissa Barlow: Cooper, this is Melissa. Cooper Middle School won, and they actually got to take their Tomahawk Tosser to the May fourth game and actually throw out the first ball.

Amanda Pellerin: Oh, okay. Neat. Neat. And I heard that maybe you met some of the braves players through this project.

Melissa Barlow: Well, after we did this project I had in the spring, I had also gone to another pl professional learning and it was the science of baseball. And through that we were able to, well, it was a surprise. Um, we did that for about a week in our classes. And then Jason mod, a relief pitcher for the braves came out and pitched the ball them. And then as a result of that, we participated in chop fest. Duncan did Jackson, Jackson and some of our other students that also participated in the launcher. Um, we, um, we did the science of baseball at chop fest. So we had some of the players help us out. The one that helped me out was Dan Winkler. Winkler. Yeah, great. Saw him pitch the other day.

Amanda Pellerin: Okay. This is our wrap up question, um, how have your interactions with the technologies, so the Tomahawk Tosser, uh, affected your work or personal life or your school?

Nabeel Faridi: This is Nabeel. And while I was working on the while I was working with my team on the Tomahawk Tosser, I believe it helped me become more confident in myself as I was a team leader. I was thinking and deciding what we should give to someone and what we shouldn't give to someone, the roles and different things. So I believe that I am a good toys for a team leader now just because of that project.

Amanda Pellerin: That's great.

Tracey Santos: This is Tracey. Um, I think the project was a great example of how to leverage and Georgia tech in general and inner integration into school projects to continue to promote stem and engineering activities and exercises like this to get more students involved because I am pro, uh, engineering and promap we

need more, we need more students, we need more talent in the working world. So we really, anything we can do to continue down this path. I think it was an exciting project. It was a fun project, a lot of hands on. They did a lot of lessons so they really did incorporate on launch angle and some physics, um, along with it. So I thought that part was really well done by Georgia Tech.

Amanda Pellerin: Okay.

Emily Crider: This is Emily. Um, it gave like a lot of the different grade grades to like be each other because like a lot of eighth graders didn't want to hang out with the sixth graders and, or seventh graders, they want to just do their, do their own thing but doing it, we all had to work as a team and my group, I was with nails group and we figured that out on the first when we first launched it because like all of us were like fighting and arguing about it and then it was like we just need to do it and just make work as a team to do it. And so we ended up having to figure out how to work as a team instead of, by ourselves.

Amanda Pellerin: Do you want me to read the question again? I didn't really,

Jackson Williams: Well this is Jackson. It helped.

Amanda Pellerin: Cool.

Jackson Williams: It helped uh, work as um, like team bonding skills I guess. And like building it helped like learn me how to build.

Amanda Pellerin: Great.

Duncan Santos: So this is Duncan and it um, actually helped with more of my mechanical skills to help me understand more mechanics and how, like, what these, um like, how do use these in what they can do together and uh, basically what each of these items can do.

Amanda Pellerin: Okay. Is there anything else that anyone wants to. Oh, I'm sorry. Oh yeah.

Melissa Barlow: This is Melissa. I think it really helped them with their problem solving skills because I'm going to be very honest. Um, I was not very good at building when I did it with Mr. Scotch and so for them to come to me and say, could you help? No, sorry figure it out. And I really do think that helped. And I think that the team building skills were really awesome and it connected the science, technology, engineering, math and a really fun way, you know, building a Tomahawk toss or just connected it so beautifully and, you know, it was real world to them. So I thought it was awesome. I missed it last year.

Amanda Pellerin: Um, any other points that we haven't addressed in our questions that you want to make sure we capture about this project and your experience with it?

Tracey Santos:

This is Tracey. One of the things that I think was helpful from my perspective and my background was I helped the team kind of understand project management and so we did do a little bit of review of what it is to run a project and how you should be assigning roles and give people responsibility and accountability. And we did on the whiteboard a schedule kind of a, you know, here's the deadlines and here's what we have to do by then and kind of backed it off from launch date and we talked about testing and you repeat testing. And so we did iterative testing. We took the launcher outside and went through that and they took detailed notes and kind of adjusted. They learned how to shoot and measure and then adjust and things like that. And all of that will be applicable to any kind of engineering job they have in the future. So hopefully that some can. Even if they didn't realize that, that it might reflect back and say, oh yeah, they'll kind of have that experience under their belt to draw on. That's great.

Amanda Pellerin:

Anything else? Alright, well thank you all again for participating and coming out this afternoon. Um it's, it's been really good to hear your stories and how these projects affect people in their everyday life, so thank you. Thanks. Thank you.