**ADVANCING OUT-OF-SCHOOL LEARNING IN MATHEMATICS AND ENGINEERING (AOLME) PROJECT**

**SESSION TRANSCRIPT**

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**Video title:** G-C2L1P-Apr12-C-Issac\_q2\_01-06

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**Folder in which the video is included/stored:** 2018-04-12, Group-C, Quality 2

(cohort 2, level 1, Polk)

**Students Involved:** Marissa, Benny, Suzette

**Facilitator:** Issac

**Activity/Topic:**

**Languages used**: English and Spanish

**Author:** Alex Salinas

**Transcript:**

**Video Starts**

**0:00**

[Students are setting up and most of the audio is inaudible.]

Judith: Pero lo quiero. Voy a ver si puedo agarrar una carpeta negra y luego pintar le como una calavera. (Inaudible). *(But I want it. I’m going to see if I can get a black folder and then paint like a skull.)*

Marissa: Te gusta así como es… *(You like how it’s like…)*

Judith: Me gusta así (Inaudible). *(I like it like that.)*

Marissa: It’s like you’re obsessed with (Inaudible).

Judith: Yeah. Con los (Inaudible) estoy obsesionada. Ustedes véanme para que el maestro quiere que ustedes la hagan, lo pongan. Ven acá. Mira, como ya saben que esta conectado a la computadora verdad? Okay. Acá va el Raspberry Pi okay. Agarran los cables, lo desenredan, okay. Este se conecta a este. Este lo conectan acá. Lo conectan y luego lo ponen acá. Agarran este cable (Inaudible). Este es este okay? Es para enchufar le computadora. Agarran el ratón y lo conectan aquí a un USB port aquí okay? Entonces ya esta conectado el ratón. Lugo, hacen lo mismo con el teclado. Lo ponen y lo conectan y ya. Este nomas lo voy a llevar (Inaudible).

*(I’m Obsessed with (Inaudible). Pay attention, the teacher wants you to do it, put it on. Come here. Look, how do you know it's connected to the computer, right? Okay. Here goes the Raspberry Pi, okay. Grab the wires, untangle it, okay. This one connects to this. This one connects here. Plug it in and then then put it here. Grab this cable (Inaudible). This one is this okay? It's to plug in the computer. Grab the mouse and connect it here to a USB port here okay? Then the mouse is already connected. Then, do the same thing with the keyboard. Put it on, and just plug it in. I'm going to take this one (Inaudible).)*

**3:40**

[Marissa sings and dances a little.]

[Benny enters frame.]

Judith: Que haces? *(What are you doing?)*

Marissa: Y esta? *(And this one?)*

Judith: Esa es la programa que hicimos la otra vez. *(This is the program that we did last time.)*

[Students and Facilitators continue setting up.]

Judith: (Inaudible) You want to switch? Here you go Benny.

Benny: No.

Judith: Yes. It’s final. I have made my final decision.

Benny: I don’t like summary, (Inaudible).

Judith: Do it.

Benny: Okay.

Judith: The power of terror. Ahorita viene el maestro porque tiene clases.

Marissa: Así se escribe (Inaudible)? *(Is this how you write (Inaudible)?)*

Judith: No. Una Z en vez de la S es una Z. Mira S, U, Z, es… wait let me see. *(No. It’s a Z instead of an S. look S, U, Z, is it? … Wait let me see.)*

Marissa: E, T, T.

Judith: Ya se que había una letra doble. Ahí esta. So okay... *(I knew there was a double letter. There it is. So okay…)*

Judith: Hola? Hola (Inaudible)… *(Hello? Hello (Inaudible)…)*

[Judith answers pone call and leaves frame.]

Marissa: Se fue la maestra ay que hacer desorden. I’m crazy. *(The teacher left, lets make a mess.)*

Marissa: [To Benny] Se te paro un gallo en la cabeza? Se te paro un gallo en la cabeza? *(Did a rooster stand on your head? Did a rooster stand on your head?)*

Benny: What?

Marissa: Si se paro en gallo en tu cabeza? *(Did a rooster stand on your head?)*

Benny: Sí. *(Yes.)*

Marissa: (Inaudible). Su…ze… Suzette. Benny. Todos tenemos una letra doble mira. Suzette, Benny, y Marissa. Mira doble S, doble N, y doble Z. Y lo mas falta (Inaudible). *(All of us have a double letter look. Suzette, Benny, Marissa. Look double S, double N, and double Z. And now we just need (Inaudible).)*

Judith: Lo escribiste mal. *(You wrote it wrong.)*

**8:00**

Marissa: Ay pero el caso es que te llamas Judith. *(But anyways your name is Judith.)*

Judith: Okay hit the power button Suzette. Under it, the first button.

Benny: Es con T, H, que no? *(It’s with T, H right?)*

Judith: Que? *(What?)*

Benny: Judith?

Judith: Judith.

Marissa: Judeth?

Judith: Judith. J, U, D…

Benny: Saben como se escribe mi nombre? *(Do you know how to spell my name?)*

Marissa: Oh Judith.

Judith: Si Judith. *(Yes Judith.)*

Marissa: Mira, fíjate en estos (Inaudible). *(look, focus on these (inaudible).)*

Judith: Okay quiero revisar lo que aprendimos la otra sesión para que podemos hacer el ultimo. Quien no estuvo la ultima sesión? *(Okay I want to go over what we learned last session so we can do the last one. Who wasn’t here last session?)*

[Suzette raises hand.]

Judith: Tu? Okay. *(You? Okay.)*

Marissa: Por qué? *(Why?)*

Suzette: (Inaudible).

Marissa: Ay si, ay si… dice (Inaudible) mira. *(Oh yes, oh yes… it says (inaudible) look.)*

External Person: Hello.

Judith: Hello.

External Person: Doing okay?

Judith: Yes.

External Person: Got everything you need?

Judith: Yes, I’m just getting (inaudible).

External Person: You have a little marker here, you know that?

Judith: Yes.

External Person: Okay.

Judith: Estábamos en la 4 verdad? (*We were on 4 right?)*

Marissa: Suzette! No te creas. A este si se le paro un gallo mira. Trae la cabeza de el y luego los pelos y os ojos. *(Suzette! Just kidding. A rooster stood on this one’s head look. He has the head and then the hair and the eyes.)*

Benny: (Inaudible).

Marissa: Si. Porque no se. Es que te miras raro porque siempre andas muy peinado así. (*Yes. I don’t know. It’s because you look weird because you always have the hair like that.)*

**10:25**

Judith: (Inaudible). Okay alguien me puede decir lo que aprendimos la ultima lección? *(Okay can someone tell me what we learned last session?)*

Marissa: Yo. *(Me.)*

Judith: Alguien le puede explicar a Suzette lo que paso? *(Can someone explain to Suzette what happened?)*

Marissa: Yo no. *(Not me.)*

Benny: We learned how to read digital numbers right?

Judith: Okay. So last lesson, we learned how to do binary numbers okay? As in zero and one okay? The we also learned how to convert binary into hexadecimal. Hexadecimal is how you get the color of a thing right? Any of them. Black, brown, white, green, red like that. Those colors. Okay so on this table, we actually learned how to convert them. I’m gonna… yeah… I’m gonna show you a few examples okay? Okay then after that we did (Inaudible). Okay then after that, um then here it’s showing how the hexadecimal table works okay? It starts from zero. So the hexadecimal is from zero to nine and it starts going A, B, C, D, E, F. It only goes up to F then it stops okay? So Zero to F. Then in decimal numbers it’s zero to fifteen right?

Benny: What happened to G?

Judith: Okay. [To Suzette] Come sit over here so I can show you a few examples.

Marissa: Entonces puedo dormir? *(So can I sleep.)*

Judith: It’s against the law to kill your students.

External Person: You guys have the numbers from zero to fifteen right?

[Judith nods head yes.]

External Person: Do you have the manipulatives?

Judith: I’m gonna, since Suzette wasn’t here the last session, I’m gonna go through a few examples with her.

External Person: Do you need the (Inaudible) Or you already did it?

Judith: We already did it.

External Person: You already did it? Everybody understands?

Judith: Yeah we’re just on the final one, I’m just catching Suzette up.

External Person: Okay.

[External Person leaves.]

Judith: We’re gonna do (Inaudible). Okay so… so pick any number, pick any number from 1 to 50.

**13:12**

Suzette: 10.

Judith: 10? Okay so 10 right? So you, how do you represent it in the decimal number? As in with the little blocks.

[Suzette thinks.]

Judith: Just one block of ten right? (Inaudible). So right here, you know how it goes two to the power of zero is one right? Two to the power of one is two, two power two is four, 2 to the power of 3 is 8, 2 to the power of 4 is 16 and 2 to the power of 5 is 32 right? It’s basically saying like since this is 2 times 1 you only put 2 ones then one. So it’s two times one. Then here it’s two to the power of two right? So it’s two times two. The two to the power of three is two times two times two. Them two to the power of four is two times two times two times two. Them two to the power of five is two times two times two times two times two. Then it goes on and on and on right? So right now… I feel like sneezing. Okay… So right now I’m gonna show you how to convert 10 into binary right?

Judith: Okay so right now, is 32 less or greater than 10?

Suzette: Greater.

Judith: So you turn it off since you’ll go over. Is 16 greater or less than 10?

Suzette: Greater.

Judith: Right so you also turn it off. Is 8 greater or lower than 10?

Suzette: Lower.

Judith: So you turn it on okay? Then 8 plus 4?

Suzette: 12.

Judith: Is it greater or less than 10?

Suzette: Greater.

[External Person enters frame.]

**15:32**

Judith: So you turn it off. And then 8 plus 2?

Suzette: 10.

Judith: So you turn it on right? 10 plus 1?

Suzette: 11.

Judith: So you turn it on or off?

Suzette: Off.

Judith: Yeah, that way is how you represent 10 in binary.

[External Person leaves frame.]

Judith: Do you want to try another one? Okay, what number do you want?

Suzette: 5.

Judith: 5? So five. Its just like 1, 2, 3, 4, 5, okay? So now is 32 greater or less than 5?

Suzette: Greater.

Judith: So you turn it off right? Do you turn 16 on or off?

Suzette: Off.

Judith: How about 8?

Suzette: Off.

Judith: how about 4?

Suzette: On.

Judith: How about 2?

Suzette: On.

Judith: On? Okay so the number is 5 right?

Suzette: never mind, off.

Judith: Off right? And one?

Suzette: On.

Judith: Right. So the binary is: 0b101 but in binary, you can just take off the (Inaudible) zeros and (Inaudible). Try one on your own. What number do you want?

Suzette: 11.

Judith: 11. Okay remember, if it’s greater turn it off, it its lower turn it on. The add them up to see if you go over or if you need a bit more okay?

[Suzette tries it on her own.]

[External Person in Green comes into frame.]

**17:38**

External Person in Green: Hola Suzette, que te tienen que poner al día? También Benny no? Felicidades. Que tuviste ayer? portero? *(Hello Suzette, what are they putting you to do today? Benny also, congratulations. What were you yesterday? Goalkeeper?)*

Benny: Uhh.

External Person in Green: No? Que jugaste? *(No? What did you play?)*

Benny: (Inaudible).

External Person in Green: Que? *(What?)*

Benny: (Inaudible).

External Person in Green: Oh tu no fuiste, tu no juegas futbol? *(Oh did you not go? Do you not play soccer?)*

Benny: Si juego pero no. *(I do play but no.)*

External Person in Green: Pero no que, no fuiste? *(But no what? You didn’t go?)*

Benny: No soy portero. *(I’m not a goalkeeper.)*

External Person in Green: Que eres? *(What are you?)*

Benny: Este delantero. *(Forward.)*

External Person in Green: Delantero? Quien metió goles? Quien metió los goles? Quienes metieron los goles? *(Forward? Who made the goals? Who made the goals? Who all made the goals?)*

Benny: (Inaudible).

External Person in Green: Quien? *(Who?)*

Benny: No me acuerdo quien. *(I don’t remember who.)*

External Person in Green: Dos? *(Two?)*

Benny: Metimos dos. *(We made two.)*

External Person in Green: Quien? No sabes quien? (Who? You don’t know who?)

Benny: No.

Marissa: Ganaron? *(Did you win?)*

External Person in Green: Empataron. *(Tied.)*

Judith: [To Suzette] So that’s how you spell 11 in binary. Want to try another one or do you think you got it?

Suzette: I think I got it.

Judith: Okay.

External Person in Green: Ya esta? Entendiste? Este es tu asiento? Okay. *(There? Did you understand? Is this your seat? Okay.)*

Judith: Miss puedes prender la computadora? *(Miss, can you turn the computer on?)*

External Person in Green: Que cariño? *(What sweetie?)*

Judith: La computadora. *(The computer.)*

External Person in Green: Que tiene? *(What about it?)*

Judith: Prende la. El botón de abajo. *(Turn it on. The button on the bottom.)*

External Person in Green: Ahí esta? *(There?)*

Judith: Ya se apago. *(it turned off.)*

**19:10**

External Person in Green: Ahí? *(There?)*

Judith: Oh ya. [To External Person in Green] Dice que no hay señal en el (Inaudible). *(Oh there. It says there isn’t a signal.)*

External Person in Green: Llama a Luis. Llamo a Luis. *(Call Luis. I’ll call Luis.)*

Judith: [To Externa; Person] The computer won’t turn on.

External Person: What?

Judith: We just need one more exercise to finish 4.

External Person: What do we need here? Did you do the (Inaudible)?

[Judith nods yes.]

External Person: Si? Because it’s fun. (Inaudible) Is really fun.

Carlos: Somebody is saying that this computer is turning off.

External Person: It’s not on? Did you guys connect the cable right? No, no I’m not doing it. You guys check where’s the cable?

Carlos: We need the HDMI.

External Person: Right? Check the HDMI. [To Suzette] You almost done? Power, power.

[Issac enters frame.]

**20:30**

External Person: And also (Inaudible). No, no, give it to them, they need to do it.

Carlos: you see what is going on? Tell me, what is this? What are these connected to? So you connect, you, you… the Raspberry Pi is connected to the keyboard and the mouse. And then what is this? The power right? Do we see any connection between the Raspberry Pi and this? That’s what it is right? We’re missing it.

Judith: [To Issac] I caught Suzette up on…

[Multiple people talking at the same time.]

Benny: [To Carlos] I didn’t set it up.

Carlos: No its okay I’m just helping you guys think about what is going on.

Issac: Oh she knows how to do it?

Judith: Mhmm.

Issac: Nice.

Judith: She’s a fast learner.

[Multiple people talking at the same time.]

(Inaudible).

Carlos: Awesome yay!. Hi Issac.

Issac: Hey.

Judith: Okay ahora lo que vamos a ser es completar esta tabla. Estos números aquí los tienen que convertir en números binarios y luego en números hexadecimales. Si recuerdan que es eso verdad? *(Okay now what we’re going to do is complete this table. These numbers here, you have to convert to binary numbers and then to hexadecimal numbers. Do you remember what that is right?)*

[Marissa shakes head no.]

Judith: No? Si? Entonces explícanos que es? *(No? Yes? Then explain what it is.)*

Marissa: Primer el. [Pointing at Benny.] *(Him first.)*

Judith: No, tu. *(No you.)*

Marissa: No primero el. El fue el que entendió al ultimo so primero el. *(No him first. He was the one that understood last so him first.)*

Judith: [To Benny] Que es un numero hexadecimal? *(What are hexadecimal numbers?)*

Benny: Hexadecimal? Son esos? *(Are they these?)*

[Judith nods yes.]

Benny: Que son? No me acuerdo. *(What are they? I don’t remember.)*

Judith: Okay un número hexadecimal es un número del 0 a F. *(Okay a hexadecimal number is a number that does from 0 to F.)*

Benny: Oh.

Judith: Nomas va hasta 9 y luego va a, b, c, d, e, f. Luego ahí para y luego otra vez va a 0. *(It only goes up to 9 and then it goes to a, b, c, d, e, f. Then it stops there and then goes back to 0.)*

Benny: It goes to a certain number than it starts going to the letter?

Judith: Si. Luego convertir números binarios a hexadecimales es poniendo los números binarios en grupos de cuatro. Si nomas hay uno o dos números en un grupo, le añadimos 0 a la izquierda para tener 4. Y luego de ahí, miras que representa el numero y luego le pones el numero. Lo que representa el número, lo pones. Luego aquí, ya nomas lo conviertes en como dice la tabla. [To Marissa] Si lo entiendes? *(Yes. Then convert binary numbers to hexadecimal is by putting the binary numbers into groups of four. If there are just one or two numbers in a group, we add 0 to the left of them to have 4. And then, you look at the number it represents and then you put the number on it. The number it represents, you put it there. Then here, you convert it as the table says. [To Marissa] Do you understand?)*

Marissa: Mhmm.

Judith. Ahora explícalo. *(Now explain it.)*

Marissa: Okay so…

Carlos: Do you have any of these ones?

Issac: Yes.

Marissa: Okay so tienes… *(Okay so you have…)*

**Video Ends**

**23:45**