

Day in the Life

The conceptual design starts with a vignette of a day in the life of a STEAM Lab School student. This vignette will capture the profile of the student we are envisioning.

Luiza rushes into the Makerspace, greeted by her two friends Alex and Carolina who are excitedly clustered around the 3D printer, watching their creation come to life, one filament layer at a time. They spent yesterday afternoon programming the design and cannot wait to incorporate the part into their capstone project. Luiza just started 3rd Form and lives in Belize City. She is interested in renewable energy and became curious about the school when she found out about an internship program through one of the local companies where her mother works. Alex and Carolina have been at the school for two years now. Alex also lives in Belize City. He is an only child and his parents didn't go to university, though they aspire for their son to earn a university degree after graduation. They have worked in tourism and have lived in Southside all their lives. Carolina, on the other hand, comes from Hattieville in the south. Carolina has to commute 45 minutes every day to the city with her parents, but she is doing extremely well in the STEAM Lab School. She has always been interested in how things work, and in her free time she often takes electronics apart to put them back together. The three of them share a concern for the country's environment and implications for climate change. They are working together on a project on wind energy, inspired by a community initiative to increase wind energy production across the region. The bell rings, calling the start of first period. Luiza, Alex and Carolina agree to meet back in the Makerspace during lunch to check on their prototype.

In her first class of the day, Luiza joins her classmates and educator in the circle. She closes her eyes and joins the others in a guided five minute meditation led by one of the other students. The meditation calms her busy mind as she settles into her seat in the hushed classroom; she quiets down the rush of getting ready for school, catching the bus, and working on the project with Alex and Carolina this morning. After the meditation, she jots down a few thoughts to herself in her journal, reflecting on her teacher's prompt: "What's moving in me? What's my aspiration for the day?" As her classmates share their reflections, one by one, Luiza listens intently. She listens compassionately as one classmate shares that his grandmother is in the hospital and he doesn't know how to help his parents; another shares their anxious excitement about their upcoming performance in the school play. Luiza shares her aspiration with her classmates: "Today I would like to be more patient with myself while I learn new things." She goes on to explain that she is having some trouble with the code of an app she is working on as part of a project.

After the morning check in, the teacher asks everyone to gather their supplies for the day's work. They are working to develop mobile apps for their community history projects. Luiza logs into App Inventor, a block based programming application developed by MIT, and begins to test her app in development. She is creating an app inspired by her Mayan grandmother who passed away recently. She wants to develop a map of the country with geolocation tags where people can find contemporary sites of Mayan culture and history.

She is bent over her laptop with a furrowed brow when she hears a voice next to her. “Hey, in the circle you said you were having a little trouble with your app. Can I help?” Luiza looks up, and sees a classmate she doesn’t know well. “Hey. Yeah, I just can’t figure out these geotags. I’ve been plugging them in one by one but it’s taking forever. Everyone else seems to be breezing along with their apps.” Her classmate asks her to show her how she’s been doing it so far. As Luiza clicks through, her classmate pauses her a moment, “Have you thought about using the “LocationSensor” component for accessing GPS information? Using the sensor, you will teach your app the geolocations, instead of having to enter them manually,” he said while showing her some of the code. Luiza did not know about the LocationSensor component of App Inventor. She wouldn’t usually have asked for help, but receiving guidance for her classmate made her realize the importance of skills such as “social scaffolding.” Scaffolding is a form of collaboration skills that can be manifested by supporting or being supported by others by asking for help, giving feedback, sharing tips and tricks, or building on and remixing each other’s work, even if you are working on different projects.

After she is done tagging the popular tourist destinations, Luiza looks at her map. She feels disappointed but can’t place why. Luiza’s teacher comes over to her station, and leans closer as Luiza shows her what she has been working on. “I don’t know—I’ve marked every major cultural site I could find from my history research. But it just feels shallow or incomplete—it doesn’t really reflect the story of my Chiich, my grandmother.” Her teacher, who recently participated in an inquiry-based learning workshop, pauses for a moment, and asks, “Close your eyes and think of your grandmother. What images, sounds, colors, feelings come to mind?” Luiza closes her eyes, pauses for a moment, “Caldo de pollo simmering in this thick black pot in her kitchen. The colorful dresses she and her friends would wear during the festival. Her prayers too, when she was frustrated with me and my brother. The way she smelled—a mix of calendula and chicory to sooth her arthritis.” Her teacher is smiling when Luiza opens her eyes. “I think you are on to something there. Those are all living examples of Mayan culture today. Could our map also document those?” Luiza’s eyes immediately brighten as she grabs her pen. “Oooh, I’ve got some ideas!” and begins quickly scribbling out a sketch for version two.

In the mid-afternoon, after completing the rest of her classes, Luiza gets on the city bus, riding towards the harbor to her internship at the marine discovery center. This is the third year that the marine discovery center has been working with the STEAM Lab School teachers and students. Initially, the center only agreed to host tours and to allow students to job-shadow their staff for a day, but given the success of the collaboration, it has opened up more meaningful opportunities for students and staff to work together on authentic projects they care about and that have concrete applicability. There, Luiza is greeted by her mentor Maria, an ecologist who is leading a government project to understand the impact of the installation of offshore wind turbines in the bay. Together, they go out in the boat to observe numbers of marine mammals in the bay and collect audio recordings of underwater noise generated by the turbines. Luiza is fascinated by her work with Maria—at first, she thought Maria’s research was to discourage wind farms by pointing to the potential risks, but as she learns more about the complexity of energy production choices and climate change she understands now that with any

intervention, we must study the effects neutrally as scientists, using such evidence to inform and weigh the best decisions for our communities.

The internship coordinator at the school Mr. Smith worked with her to find the perfect position and checks in once a month to see how the experience is going. In her last session with Mr. Smith, Luiza told him, “I can see myself in Maria. I didn’t know that a job like that existed before. With her visits to the wind farm she is building a bridge between the construction crew, the scientists, the community—all to take care of the marine life in the bay.”

As Luiza and Maria sail back into the marina, Luiza turns to her mentor. She says, “You know the national energy summit we are hosting at the school next week...I just found out today that my team’s project has been selected as one of the pitch finalists for the design competition!” Maria pumps her hands in the air and gushes praise, until she sees Luiza’s face turn downcast. “What’s the matter?,” she asks. “We will pitch alongside high schoolers from across the country. I’m so excited but a little nervous,” Luiza admits. “Would it help to practice? You, Alex and Carolina should come to the marine center and rehearse your pitch with me and the team. And then when you are on the big stage when you see us out in the audience you’ll know we’re there with you, cheering you along.” Luiza feels a wave of relief, feeling grateful to have someone like Maria in her life. She looks out toward the horizon as Belize City comes closer into view, admiring the way the rich colors of bustling bay life and clear blue sky reflect off the water. She breathes a deep breath, exhaling confidence and pride—for herself, for her community, for her country.

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