

Empathy Interviews for Developing Inclusive Computing Pathways

“Designers tend to unconsciously default to imagined users whose experiences are similar to their own...design ends up focused on this small...subset of humanities. Unfortunately, this produces a spiral of exclusion.”

- Sasha Costanza-Chock, [Design Justice](#)

Designing lessons and curricula that are inclusive of all students takes time. It is a process that begins with empathy. The Empathize Phase of the [design process](#) focuses on understanding the experiences, emotions, and motivations of others to learn more about the needs of the users for whom you are designing. Understanding the students with whom you are working can help you to identify their needs and design for those needs. Taking the time to sit down and talk with a student and invite these stories they have to tell provides the opportunity to work toward inclusive design.

In the Empathize Phase of designing an inclusive computing pathway you are going to conduct an empathy interview. Empathy interviews allow you to hear the stories and experiences of someone who will use what you are designing, in this case a student, and learn about their realities.

In this exercise you will complete five steps:

Step 0: Notice - Begin with yourself and your identity.

Step 1: Answer - Reflect on your own experiences before interviewing a student.

Step 2: Listen - to your students' stories by interviewing them and, if you have time, their caregiver, about their CS/CT experiences

Step 3: Observe - understand your students' context, uncover their needs, and hear their honest feedback

Step 4: Reflect - Give yourself time to sit with the stories your student shared and reflect on them. Consider what they mean for you and your experiences.

Give yourself time to complete this exercise. It will take you a few sittings to start with yourself, have a conversation with a student, and reflect on that conversation. Giving yourself the opportunity to take time as you move through the exercise will help you to learn more from the conversation.

Step 0: Notice

"Identity is made up of **who we say we are, who others say we are, and the people we desire to be.**

Because we are complex beings, we have racial, cultural, gender, environmental, and community identities, to name a few. Students are constantly making sense of who they are, and classroom instruction needs to be responsive to their identities. Not only is it important to teach youths who they are, but educators should also teach students about the identities and cultures of others different from them.

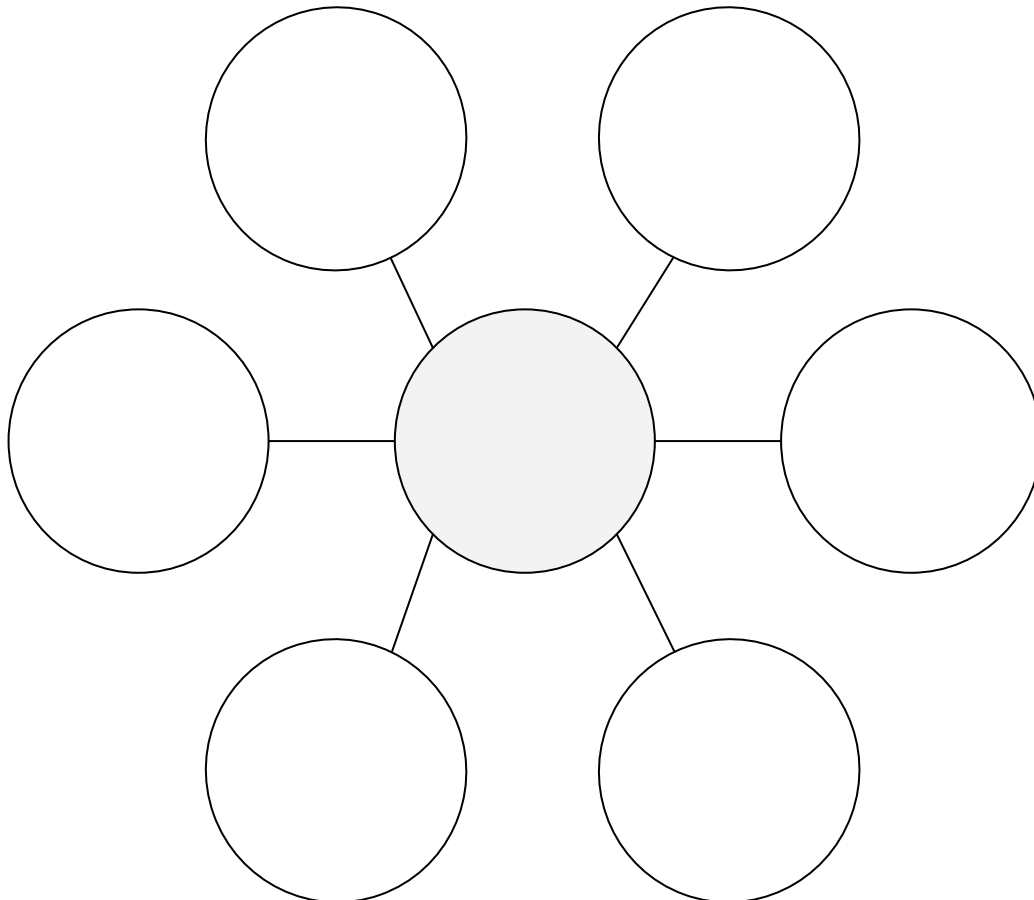
As learning takes place, one asks,

'How am I learning about who I am and about the lives of others?'

-Ivelisse Ramos-Brannon & Ghody Muhamma,

[Teaching Toward Genius: An Equity Model for Pedagogy in Action | Equity & Access Pre K-12](#)

Begin with yourself. What is your identity? Complete this web with the parts of your identity (race, ethnicity, SES, values etc.).



As you have identified for yourself, we each have multiple identities. Advantages and disadvantages are experiences not only because of a single identity, but also due to identities combining and intersecting. Intersecting identities can be both empowering and oppressive.

How do your identities overlap?

Tell about a time when your overlapping identities affected your experiences.

Step 1: Answer

Your identity is affected by the experiences that you have. In turn, your teaching is affecting the identity development of your students. Starting with your own multiple identities in mind (including the ways those identities intersect), take time to reflect on your values relating to computing and the creation of a computing pathway. Before you interview a student, begin by reflecting on your own multiple and overlapping social identities.

Reflect on the CS/CT work you have done:

What are your needs/values as related to the computing pathway?

Tell about a memorable relationship you built with a student.

How might your student(s) describe you and their relationship with you?

Share a time when you had a challenge connecting with a student. How did you and the student overcome the challenge? What did you learn about yourself from this experience?

Tell about a learning experience you had that challenged a stereotype and bias that you had of someone else.

As you work on creating an inclusive computing pathway, which empathy actions (i.e., observe, engage, immerse) might you try? Which blind spots/biases might you challenge?

Now, start to think about a student you could interview and prepare yourself for the interview.

First, consider your learning goals for the interview. What do you hope to take away from the interview?

Then, select a student. As you are selecting a student to interview, consider a student whose experiences are likely different from your own and from those of the dominant society. If multiple interviews are done within your class or school consider how to get a variety of different student experiences. When selecting a student, be aware of the power dynamics between you and that student and make sure to select a student who won't feel othered by the experience of being selected.

Finally, approach the student to ask them if they are willing to be interviewed. Do so in a way that ensures the student has time to think about whether they are willing to share their stories and can say no if they are not comfortable. Explain to the student that you want to know more about students' computing experiences and you will be asking them to share some stories about how they have experienced computing. If the student agrees to be interviewed, give them control over the interview by asking when and where they would be most comfortable having the conversation.

Step 2: Listen to your students' stories

For decades, the mantra of disability rights activists has been “**Nothing about us without us.**” This powerful statement has been adopted by other marginalized groups reminding creators to design with rather than designing for.

An empathy interview will allow you to gain insights into how students are feeling toward computer science and computational thinking. This is important because, as the opening quote states, there is a tendency to design for imagined users and ourselves, which often perpetuates designing for white, dominant culture.

An empathy interview is very different from a regular interview. Consider the following as you are preparing for the empathy interview.

1. Create a **comfortable environment** that is familiar and safe to the student. This might not be the classroom. Ask the student where they would prefer to be interviewed and find a place that will allow the student to be comfortable and relaxed as they share their experiences.
2. Although this is an interview, **try to focus on storytelling and having a conversation with your student** rather than following a strict question and answer format. There is a list of questions/prompts below, but **you do not need to ask every question and you can have conversations not on the list.** You will notice that most questions are written to invite stories. The goal is to have an open conversation that provides a new perspective. Telling and hearing stories will help to foster conversations.
3. **There will probably be times of silence in the interview. That is okay and expected.** Try to just sit with the silence and allow the student you are talking to the time they need to give an answer. **Don't feel like you need to suggest an answer** to a question and fill the silence, allow the interviewee to break the silence and share what they have been reflecting upon.
4. You will need to take notes during the interview, but do so in a way that allows you to **balance notetaking and being present with the student.** Talk to the student about this at the beginning of the interview by telling them, “If you see me look away it is because I am taking notes. I will be fully engaged, I just want to make sure I do not miss anything.”
5. **Make note of students' body language during your conversation.** How does the student gesture or move? Does the student make specific facial expressions? Avoid looking you in the eye? Cross their arms? Fidget? Consider what these reactions signal about how the student is feeling during the interview.
6. **Take note of not only the student, but also your feelings and reactions.** Focus on what you hear and what you personally feel. The things that surprise you, that you hadn't ever considered, or that cause an emotional reaction from you are significant.

Start by explaining why you are talking to the student.

Thank you, [name], for being willing to talk to me. I'm on a team that is working to create new computational thinking and computer science lessons. We want to make sure that the lessons are a good experience for all students. Since it's been a long time since I was a student, I wanted to talk with you a bit about your experiences and hear your stories about the computer science learning you have done in my class and with other teachers. When you are telling stories, you don't need to use other teachers' names or even those of other students. You can share just what you are comfortable sharing. I want to hear your honest thoughts, so don't be afraid to tell me if you didn't like something we did in class or if something made you uncomfortable. It is good for me to know that.

Reflect on the students' experiences with CS/CT:

1. Tell me about how this year of transition and remote learning is going for you.
2. When you hear the phrase Computer Science what comes to mind?
3. Share with me an experience you've had with computer science.
4. Tell me about a computer scientist you know or know of
5. Tell me about how you are similar to or different from a computer scientist.
 - a. Optional Tell me about your interest in computer science
6. Tell me about the things you would like to learn about computer science that you currently do not learn.
7. In our class, we've been thinking like computer scientists. For example when you [describe lesson], that was like how a computer scientist [explain the connection].
 - a. Tell me about your experience with the project.
 - b. Can you show me the project that you created during our class? Tell me about your project. What was your process to complete this artifact?
 - c. Share with me things that would have helped you do a better job on the activity/project.
 - d. Tell me about a time you got stuck and how you figured out what to do.
 - e. Did you have all of the information you needed to complete the project?
 - f. Share with me what you would have done differently if you were the teacher.
8. Share with me lessons or projects that stand out to you from the last school year. Tell me about why they stand out to you.

Probe with:

- "Can you tell me more about that?"
- "Why did you do/say/think that?"
- "Why?"
- "What were you feeling then?"
- "What made you feel like that?"

Once you are done, go back through your notes and fill in the gaps. It is important to do this within 24 hours of the interview when your memory is fresh. Think about what the short phrases you wrote down mean and expand them into the stories that your student told you. Add as much detail as possible so that you have a good set of notes to reflect on in the future.

Step 2.1: Interview your students' caregiver

If you can, take the opportunity to also interview a caregiver of one of your students. When deciding on who to interview, it could be the caretaker of the student who you interviewed or a caregiver who you have a good relationship with and feel comfortable asking about the students' experiences. If it isn't the caregiver of the student you interviewed, consider trying to get a different perspective than you received from the student. When interviewing the caregiver, keep in mind the same practices that you did with the student: choose a comfortable environment, embrace silence, and note not only answers, but also observations.

Reflect on the caregiver and students' experiences with CS/CT:

1. Tell me about how this year of transition and remote learning is going for you.
2. Would you tell me about how it has been for [student name]?
3. When you hear the phrase Computer Science what comes to mind?
4. Tell me about [student name]'s experiences with computer science.
5. Tell me about the things [student name] would like to learn about computer science that they currently do not learn. Some examples might be [game design, robotics]
6. In our class, we've been thinking like computer scientists. For example, our class [describe the lesson in 1 to 2 sentences]. We talked about how that was like how a computer scientist [explain the connection].
 - a. Tell me about what [student name] experienced while we were working on the project.
7. Share with me what you might do differently if you were teaching something like this.
8. Are there any lessons or projects that [student name] completed that stand out to you from the last school year. Tell me about why they stand out to you.

Probe with:

- "Can you tell me more about that?"
- "Why did you do/say/think that?"
- "Why?"
- "What were you feeling then?"
- "What made you feel like that?"

Once you are done, go back through your notes and fill in the gaps. It is important to do this within 24 hours of the interview when your memory is fresh. Think about what the short phrases you wrote down mean and expand them into the stories that the caregiver told you. Add as much detail as possible so that you have a good set of notes to reflect on in the future.

Step 3: Observe

As important as it is to talk with a student, it is also important to consider actions, both yours and those of students. Spend some time observing your own classroom and the interactions that you have with students and students have with each other. Observing the classroom is an opportunity to look for opportunities to design for those who are not a part of the dominant culture and develop empathy by looking at what is happening with a fresh lens.

Then, consider the interview. What observations did you make? How did the student act during the interview? How did those actions change?

Sometimes what you observe can contradict what you are told. It is important to identify these moments of dissonance to look for things that are going unsaid. Often the moments of dissonance point out opportunities to create a more inclusive classroom.

Consider teaching Computer Science and Computational Thinking

Tell about your classroom when you do CS/CT activities. Think about how students are sitting in the room and their interactions with one another.

Tell about the groups your students create when they are given the freedom to create their own small groups.

Tell about how students answer questions and share during CS/CT lessons. Consider who volunteers to speak and answer questions and which voices are heard in the classroom.

Tell about the student who speaks the least in class during CS/CT activities.

Tell about the student who speaks the most in class during CS/CT activities.

During the interview

Tell about the environment in which the conversation with your student took place.

Tell about the student's body language during the interview.

When did the student's body language change throughout the interview?

What does the student's body language tell you about the interview?

Step 4: Reflect

“Design justice asks whether the affordances of a designed object or system disproportionately reduce opportunity for already oppressed groups of people while enhancing the life opportunities of dominant groups, independently of whether designers intend this outcome.”

- Sasha Costanza-Chock, [Design Justice](#)

Throughout this process you have had the opportunity to think about yourself, your student, and maybe even a caregiver. These three sources of information provide rich, but varied insights into the experiences of students in the classroom that can be taken into account when designing new lessons. As this opening quote states, designed objects can reduce opportunity for some while promoting opportunities for others without the designer even trying. Conclude this empathy exercise by reflecting on what you have learned and how you will move forward.

Go back to your notes and reflect on the observations that you made during and after the interview.

What stood out to you? What surprised you about what was shared?

What was unfamiliar to you in the answers my student shared?

What did your student (and the caregiver) identify as computer science needs?

What inconsistencies did you notice between what was said in the interview(s) and what you observed? How does this affect or provide additional insights?

How might your identity and role as a teacher affect what was shared with you?

How are the experiences the student (and caregiver) shared related to privilege and systemic oppression in schools?

Based on what you have seen and heard, how do you plan to move forward?

What are your short-term goals and opportunities for change?

What are your long-term goals and opportunities for change?

How does what you learned affect the creation of an Inclusive Computing Pathway?

Empathy Interview protocol based on:

Anaissie, T., Cary, V., Clifford, D., Malarkey, T., & Wise, S. *Liberatory design: Your toolkit to design for equity*. Stanford D.School.

<https://dschool.stanford.edu/resources/liberatory-design-cards>

Costanza-Chock, S. (2020). *Design justice: Community-led practices to build the worlds we need*. The MIT Press.

Hill, C., Molitor, M., & Ortiz, C. (2016, November 15). Racism and inequity are products of design. They can be redesigned. *equityXdesign*. <https://medium.com/equity-design/racism-and-inequity-are-products-of-design-they-can-be-redesigned-12188363cc6a>

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