

Observation Report Interview Questions

- What type of skills or knowledge do you aim for students to acquire?
- How does this lesson fit into the broader curriculum?
- What knowledge do you expect students to already know before coming into this lesson?
- What aspects of the lesson do you think will be more difficult to understand and learn?
- How will you keep students engaged with the lesson?
- Have you tried other ways to teach this lesson in the past? Did you feel that it was effective?
- How will you know that students have learned something in this lesson?

Interview Transcript

Ethan

Can you just check if the audio is picking up everything? Can you say something?

Mr. Benum

Hello.

Ethan

Yeah, it should be fine.

Ethan

Yeah. Okay. All right. Hello. I am at Thornhill Secondary School right now with my computer science teacher, Mr. Benum. He was a great teacher throughout all my years. I'm here today to talk about the observation report assignment. How are you doing today?

Mr. Benum

Well, thanks, Ethan.

Ethan

Well, for the lesson, what do you have planned for the lesson? Can you give me a general idea of what you want for them to learn?

Mr. Benum

For the lesson, I'm going to introduce Java to them. This will be their first exposure to learning Java. They currently know HTML and CSS. They've been working on websites for a couple of weeks. We're working for the transition into learning a programming language. I thought to link them together and to make it a bit more interesting and motivating, we'll work on making message boxes that pop up and show a message that can be styled using the knowledge they have in HTML.

Ethan

I see. Basically, by transitioning their knowledge from HTML to Java, you prepare them more for learning Java in the future.

Mr. Benum

Right. Their final project is at the end of the semester. Requirement of that is to have good information about how to use the software. An easy and nice way to do that is to use a J-option pane where they can have the instructions appear with pictures and some fonts that are different, make it look nice, so they can come back to this at the end of the this semester and recall it and use it into their final culminating project.

Ethan

I see. That is very interesting. I don't remember using HTML in the final assignment for us, but is that something that you're planning to do this semester?

Mr. Benum

Well, one of the criteria on the marketing scheme was to make instructions for your... Most people want to make a game. Sometimes they'll just make their game and there'll be no instructions. You don't really know what to do, what to press to get it to work or the goal of the game. People in the past have made messages, message boxes to tell the user what to do. But to take it one step further is make it look a little nicer by using some HTML to style that information up. Yeah, make it look a bit more professional.

Ethan

Yeah, that makes sense. You said that they need prior knowledge of HTML already, but is there anything else that they need, or do they only need that knowledge from HTML to go into this lesson and understand everything?

Mr. Benum

They will need to know how to use an IDE, so we'll have to go over that in the lesson before. I'll just walk them through what an integrated development environment is and how the one we use Eclipse, how Eclipse works and how you navigate it. We'll get that out of the way so that they can be ready for this lesson. They will need to know a little bit about how to type code into the environment. But other than that, they don't really need to know any Java because it is a one-line command that we're using.

Ethan

I see. During the lesson, do you think that there will be any aspects that are difficult for the students to pick up and understand?

Mr. Benum

I think it'll be their first exposure to typing Java code. They'll have some familiarity with CSS, which is a little bit similar using dot and curly brackets. Some of that they can draw upon, but I think there will be some challenges with learning the syntax for the first time of Java and just navigating the environment. It'll be brand new. They've never used, most of them have never used a programming IDE before. I think those might be challenging.

Ethan

I see. In order to try and get that information across and to make sure that the students are thoroughly engaged with the lesson, what types of strategies are you going to be using during the lesson?

Mr. Benum

I think I'll start out by showing them what's possible, to motivate that, and I think they'll be looking at some graphical output that I think that'll keep them engaged. I find sometimes with students, if they don't feel like they have the skills, they might feel like they can't do it and not be

interested. But also at the higher end, some students might think it's too easy if they have past experience. So trying to get something that's extensive It depends on both ends of the spectrum. I think this one should be approachable for the beginner and produce some interesting results. I think that should help engage them in the activity. And the higher end kids can take it a bit further and add more and more to it to make it even a better product.

Ethan

You're saying that there were different levels of students in one class, and I can understand that that's a little bit difficult to manage. In the past, when you have been teaching these types of lessons, has that been a difficulty for you?

Mr. Benum

Yeah, it's a huge difficulty. I think that generally, in computer science, especially, students will have a lot of knowledge coming in or interest, and their pace will be a lot quicker than somebody who hasn't encountered it before or maybe doesn't have a natural interest in it. There's a big spread between the abilities. I think the best way to tackle it is to make assignments and lessons that you can have different levels of achievement on them. Some students can take the harder question out of a question set. A lot of these in this course is an AP and non-AP course, so I usually will put some more challenging questions for the kids that are higher, come in with some more skills, and that'll challenge them. Then the more straightforward, base-level questions for the others.

Ethan

I see. My question is, when you have those assignment questions with varying difficulties, how, how do you assess those students when you're dealing with maybe students that are not as strong in coding versus students that know more what they're doing?

Mr. Benum

As long as they achieve the curriculum objectives, even the student who's a little less skilled, they can still produce the the results they need to to hit that curriculum expectation. And the higher-end kid can... Usually, they're self-motivated and they'll just excel. And so assessing them is just, did they get that curriculum objective or not? And if it's an evaluation like a test, the higher-end kid will excel. And there should be a couple of questions that could differentiate by marks the higher-end kid from the lower-end kid, but you're hoping that they all achieve level four, ideally.

Ethan

You're trying to say that basically all the students should try to aim for a baseline level. Then those kids that know more, they go above and beyond the expectations and to show off what they know. I'm asking, and I want to ask, how would you motivate those kids to try harder and display their prowess?

Mr. Benum

Are you talking about the higher-end students? Yeah. Yeah, that's a good question. But I do find providing the right level of challenge for those kids is good, is usually motivates them innately. Just having those extra questions, extra challenges, and them are able to read on their own and and figure things out on their own. So I'll just usually suggest pathways or maybe you want to investigate this to learn more. This might be useful. So posting, the extra challenges for them and they generally, yeah, take them on, I find.

Ethan

I see. All right. So let's go back to the lesson. So you're going to teach this lesson about trying to use Joption panes with the prior knowledge in HTML. So what type of method are you going to use to make sure that the students have actually learned something in the lesson?

Mr. Benum

We can maybe the first will be a talk about how to use it, explain the assignment, explain the objective for the day, and then walk around and check in with students and have conversations with them, seeing if they're understanding it, if they fully grasp it, if they need a bit of help. At the end of the lesson, we'll do like a little exit check and make sure that they understand, maybe I could do a like a little quiz just to see, you know, questions on, just to see if they actually understood the concepts being taught. So I think mostly through conversations, just observing if they were able to successfully do the task. That's how I'll know.

Ethan

I see. All right. Yeah, that sounds like a very good plan. I wanted to ask, if in the lesson, I know that the difference in skill level between the students might be an issue. In the lesson, you do motivate all the students to kind of like do their very best but I was wondering if you had like any other like any other like extra like extra kind of content for any of the kids that are like above that level above like the baseline level

Mr. Benum

For this specific lesson or just in general?

Ethan

I guess both

Mr. Benum

Yeah, so for this one. I could explain to them, here's the minimum of what I expect done. And then for those who are higher level students they kind of work quicker. I can add some extensions to maybe add some extra features, add an image instead of just plain text, like use more of the HTML elements in their product. And in general, yeah, just every lesson, every chapter, I usually post things that will satisfy all levels. So yeah, and as you know, from your experience, TSSOJ, our website, has some challenging problems. So just kind of listing those at the end for the higher end kids that can satisfy their needs, because they do need to be challenged further. So there's good levels of difficulty, many varying levels to differentiate the instruction for those students.

Ethan

I see. And let's steer away from those high level students. Let's talk about those students that may be having trouble with the content. So what resources or what ways would you, or what methods would you use to kind of support their learning?

Mr. Benum

Yeah, so one thing that's been effective in the past has been, you know, if I sense at a certain point that this is not... you know, they're not catching on to, for example, learning Java, then switching to a more graphical based approach, like using something like App Inventor or like a blocks editor, drag and drop so they don't have to type code and make syntax spelling mistakes, but they're still getting the concepts that are required in the course. That's usually the direction I go with those students, which requires you making different tests and different resources for them but you know that's otherwise they're just going to be lost and not engaged so those those tools still satisfy the curriculum objectives but through a different path, and also I do find there's often language challenges with students in this school, especially coming from overseas. And so the test that I gave today was any question that I thought maybe had some language challenges, I would just translate it into Farsi, simplified Chinese and Korean. Definitely they would benefit as well, from a more graphical instruction environment where they're just kind of reading and seeing how to write a program through a graphical method, so not as language heavy and more graphics. So that usually helps in that case too.

Ethan

I see. So for these students that are not as strong in English, do you find that when you teach your lessons, do they catch on to the concept, and ideas that you teach very quickly or do you have to provide extra support as in like the translations that you need to provide?

Mr. Benum

Yeah they probably would not understand everything that I'm saying if I'm speaking so yeah having some readings to supplement and pointing them to resources in their own language is usually helpful, or pairing them up with a friend with some other peer that is speaking the same language usually would help too, because they can kind of explain if they know multiple languages to them, a person who is brand new. I see.

Ethan

So earlier you talked about having two kids collaborate together. Is that kind of idea very prevalent in this course in general? Do you like having students work together, or would you rather just have them do their individual work? What do you think is more conducive to their learning.

Mr. Benum

I think definitely collaborating helps a lot. Yeah, like definitely better if they discuss with the person beside them what they're doing. Yeah, in the end they'll have to do it on their own anyways for an evaluation, but I think definitely communicating and helping each other out is very helpful in this course.

Ethan

I see. Okay, that's good enough.

