

The Opportunity Myth: Meet Isaac

Throughout today's session about *The Opportunity Myth: What Students Can Show Us About How School Is Letting Them Down – and How to Fix It*, you'll follow the experiences of **Isaac**, an 11th-grader who told us he wishes school was more connected to the aspirations he has for his life.



When Isaac walks across the stage to collect his high school diploma, with his family cheering him on, it will not be an accomplishment he takes for granted. There was a time when it looked like it might not happen. He'd struggled during his freshman year, including experiencing a period of homelessness, and had encountered adults in school who undermined his belief in himself—some quite explicitly.

"There were many people telling me I couldn't make it," says Isaac, who attends a small public school in the western half of the country. "I stopped going to school. I'd sign in and leave." Eventually, his guidance counselor told him he wasn't on track to graduate with his class.

He found himself contemplating the pain he would cause his family if he didn't earn that diploma. "It hurt. I was looking at myself like, if my brothers can do this, why can't I? If my mom can do this, why can't I?"

Isaac was also struck by the realization that his lifelong aspiration—becoming a registered nurse—might slip out of reach. For Isaac, it was a goal to which he was deeply committed. "I can't give up on a dream that I've always had since I was a little boy. I'm willing to take any chance in my life for this dream."

After taking on extra credit, staying late, writing essays—*"whatever it takes"*—he got himself back on track to graduate.

With his aspiration toward a career in nursing, Isaac is aware that he needs a strong math and science background. Not only that, but he likes testing different concepts through experiments. In contrast, in classes where his teachers do all

the talking, he struggles to stay focused, because they just don't engage him deeply.

"Some classes are really dry," he explains. "You take nothing but notes. That's not going to help me learn what I need in the long term. What if I need this in my long-term memory? When a class is really dry, the teacher is not helping us learn more about the subject."

Isaac reflects that he is most interested in classes where the content is useful for what he wants to do with his life. "Let me learn something that's going to help me in nursing school," he says. "[It should be] something that's harder for you, something that's going to help your lifestyle that you're living."

His Physics class also rates highly from Isaac's perspective because his teacher, Mr. Adams, knows how to crack a joke, while also taking students' learning seriously. "There's not many classes like that," Isaac observes.

Today, we'll pause throughout the day's presentation, and you'll dig into the experiences Isaac had in his high school Physics class on a given day in the 2016-2017 school year, focused on the question: **Will Isaac be well-prepared to reach his goal of being a registered nurse?**

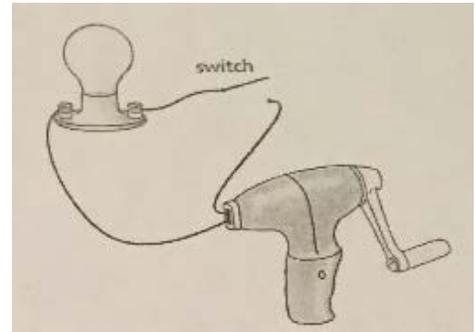
Please stop here and don't read ahead in your packet – we'll direct you to the right page when it's time to flip ahead!

What types of assignments did Isaac work on in his high school Physics class?

Here is one example assignment that Isaac experienced in his high school Physics class. *Note that we recreated this assignment to collapse it into one page, but students completed approximately ten comparable questions.*

Electricity for Everyone Worksheet

1. Which of the following is necessary for the light bulb to be lit in the diagram to the right?
 - a. The switch must be closed.
 - b. The generator must be cranked.
 - c. The generator must also be connected to steel wool.
 - d. Both A and B



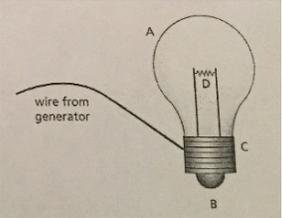
2. After the bulb lights in Question 1, what happens to the brightness of the bulb if the generator is rotated in the opposite direction at the same speed?
 - a. Nothing – the bulb glows with the same brightness.
 - b. The bulb does not light at all.
 - c. The bulb lights, but dimly.
 - d. The generator spins by itself as the bulb lights.
3. The light bulb in the diagram is replaced by a blinking bulb. Which statement below best describes what happens to the generator when the bulb goes from off to on?
 - a. The generator is easy to turn whether the bulb is on or off.
 - b. The generator is hard to turn whether the bulb is on or off.
 - c. The generator is easy to turn when the bulb is on but hard to turn when the bulb is off.
 - d. The generator is easy to turn when the bulb is on but hard to turn when the bulb is off.

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What type of instruction did Isaac receive in his high school Physics class?

The objective on the board was “Students will understand what it takes for a circuit to function.”

These notes are organized as “teacher actions” and “student actions” so you can get a feel for what both the teacher and students were doing throughout the lesson. They have been streamlined for the ease of this activity.

Time	Teacher Action Notes	Student Action Notes
3:05	<p>Teacher: “We’re going to get started continuing to learn about electricity and how it works.</p> <p>As we’ve previously discussed, you have to generate a current. Think about resistors, parallel & series. When you plug wires in you want there to be electricity. Where are you going to plug these wires into to create electricity.”</p> <p>The teacher uses two pencils to model.</p>	<p>14/17 students are silent, observing the teacher. 3/7 students are whispering to each other.</p>
3:09	<p>Teacher: “So we’re going to walk through a few different scenarios, and we’re going to think about whether electricity would be conducted, given the scenario. James, can you read the question out loud?”</p>	<p>James: “The diagram to the right shows a lightbulb without the bulb base and one wire from a hand generator. The wire from the generator is connected to the bulb. Where should the second wire from the generator be connected for the bulb to light?”</p> <p><i>Here is the picture James referenced:</i></p> 
3:12	<p>Teacher: “Okay, so you’re going to pick A, B, C, or D based on how you think the circuit can be closed and start to work.”</p> <p>“Take ten minutes to talk to your group about what you think the correct answer is here.”</p>	<p>All groups begin conversation, and 5/5 groups are having on-topic conversations.</p>
3:16	Teacher circulates, talking to each group.	5/5 groups continue their conversations.
3:20	Teacher continues to circulate, talking to each group.	2/5 groups finish their question and begin off-topic discussions.
3:25	“Okay, so we all agreed to the correct answer. Now you’re going to have more time to work with your group. You’ll have the next twenty minutes to complete the remaining questions on the sheet. I’ll be coming around to see how you’re doing.”	5/5 groups are on task.
3:40		3/5 groups are finished; 11/17 students are quietly chatting about other topics.
3:45	<Class ends>	

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How engaged was Isaac in his high school Physics class?

Here are Isaac's responses to our daily student survey while he was working on the assignment described above. Overall, Isaac was **Minimally engaged**.

Today, class was...	<input type="radio"/> Too easy	<input type="radio"/> A little too easy	<input type="radio"/> Just right	<input type="radio"/> A little too hard	<input type="radio"/> Too hard
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Today...	Not true	A little true	Mostly true	Very true
Class was about something interesting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really liked what we were doing in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was thinking more about class than anything else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Today during class, I felt...	No	Yes
Happy	<input type="radio"/>	<input checked="" type="radio"/>
Excited about learning	<input checked="" type="radio"/>	<input type="radio"/>
Successful	<input checked="" type="radio"/>	<input type="radio"/>
Smart	<input checked="" type="radio"/>	<input type="radio"/>
Confused	<input checked="" type="radio"/>	<input type="radio"/>
Angry	<input checked="" type="radio"/>	<input type="radio"/>
Proud	<input checked="" type="radio"/>	<input type="radio"/>
Focused	<input checked="" type="radio"/>	<input type="radio"/>
Bored	<input checked="" type="radio"/>	<input type="radio"/>

Today in class...	No	Yes
Did you wish you were doing something different?	<input type="radio"/>	<input checked="" type="radio"/>
Did you wish you had more chances to share your ideas?	<input type="radio"/>	<input checked="" type="radio"/>

Class today was about something...

	Not true	A little true	Mostly true	Very true
I can use outside of school.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Important to my life right now.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Important to my future.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I already know how to do.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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What expectations did Isaac's high school Physics teacher have for his students' success against the standards?

We asked Isaac's high school Physics teacher to respond to the following questions on a teacher survey, which we used to create an expectations construct. Isaac's teacher had **High Expectations** for his students' success against the standards.

Statement	Response
Students are overburdened by the demands of our state's standards.	Disagree
My students need something different than what is outlined in our state's standards.	Disagree
The standards make it difficult for students to learn basic skills in my subject.	Disagree
Our state's standards are too challenging for my students.	Disagree