Tec professor wins global award for educational innovation excellence

Professor **Lizette Hernández** won the **STEM Excellence Award** at **Labster's 2022 STEM Awards** for applying **educational innovation** and for the **impact** it's had on her students and the Tec.

This recognition also places her among the **10 most innovative educators in the world** according to **Labster**, a global platform specializing in virtual labs and science simulations.

Dr. Hernández was recognized for her **implementation of the Labster simulator** in online, in-person, and hybrid courses at **Tec de Monterrey.**

*"Receiving an award like this is very motivating. I've always liked **innovative education** and technology is a branch of that. Besides being popular, **it helps students by challenging them** and facilitating their learning,"* said the professor.

The academic from the Department of Basic Sciences of the **Tec's School of Medicine and Health Sciences** served as **leader when using Labster during** her students' **lab practice.**

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She was also a key element for the Tec becoming a **pioneer** in **using this tool in Latin America today,** impacting **more than 3,000 students.**

In her opinion, one of the factors that led to her winning the **2022 STEM Excellence Award** was **her work on translating Labster simulations into Spanish**, which she helped achieve and implement.

*“Thanks to the fact that students can practice simulations in both languages, they can learn the **appropriate health lexicon** of the area they’re studying, since it isn’t colloquial terminology,”* pointed out the doctor.

Some of the **criteria** evaluated when **granting this award** include being an educator with outstanding performance in:

Algunos de los **criterios** considerados para **otorgar este reconocimiento** son que se trate de docentes con rendimiento en:

- *Encouraging scientific literacy*
- *Using innovative instructional materials and new teaching approaches*
- *Promoting careers in science and technology*
- *Supporting strategies that increase engagement and effective learning in STEM courses*
- *Embracing evidence-based teaching strategies*
- *Leading an educational institution forward in its use of educational technology (EdTech) to help more students achieve their goals*

/> width="900" loading="lazy"> **The aim: to expand teaching**

According to the School of Medicine professor, the process that led to her **using virtual platforms as a tool** in her labs arose from her motivation to understand the challenges and needs of students.

*“When we were designing **work plan** for the **Tec21 Model,** we were aiming to incorporate **technology** in a way that was **new and different** from what the students were used to,”* recalled Hernández.

The doctor began implementing Labster’s virtual laboratories in 2019, but the arrival of the **COVID-19 pandemic changed her work paradigm**.

*“During the pandemic, Labster helped us take advantage of technology so that our students **could learn to do their lab practice** despite the fact that **there was no access to physical facilities,”*** said the professor.

As a result of this experience, Hernández recalled that her fellow teachers decided to expand **the use of the platform and maximize students’ time on it.**

https://youtu.be/_U3QcV9aI0k

Interactive learning

For Dr. Lizette Hernández, the purpose of this tool is to **provide fully interactive virtual simulation training** designed to improve the traditional learning experience.

***"Labster is a virtual laboratory platform** that enables simulated practice in different areas with a **gamification model** that engages students.*

*"It's a safe space where students can **practice as many times as they want** and where it doesn't matter if the experiment doesn't work out the first time round,"* she said.

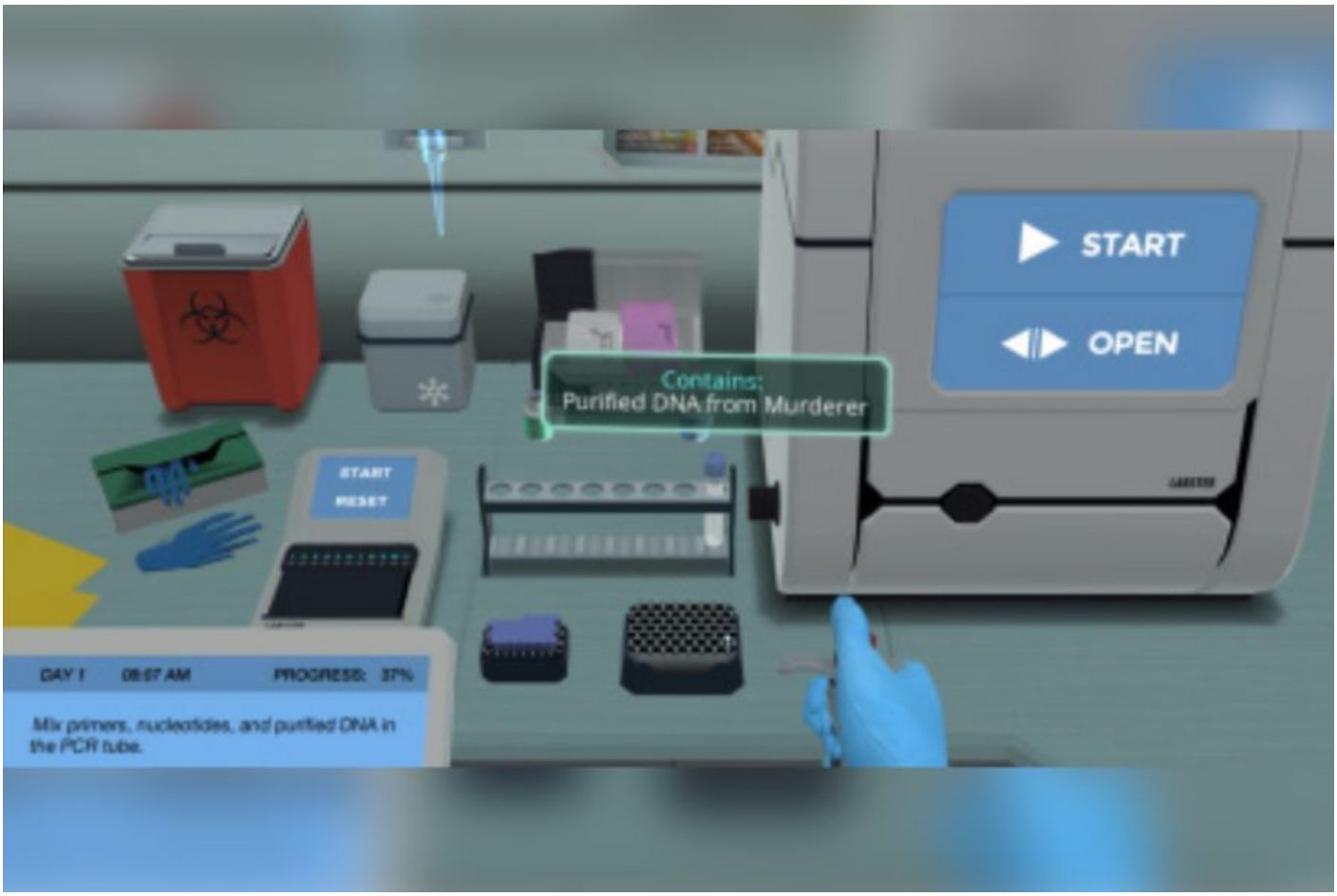
"These simulations aren't a substitute for the teaching given by teachers; they're a complement." - Lizette Hernández.

The professor explained that the platform's simulations can be used in a variety of different ways, from replacing an **entire laboratory** to applying **supplementary learning activities** such as quizzes.

*"I should make it clear that these simulations **aren't a substitute for the teaching given by teachers**, but rather a **complement** that enables them to transfer and reinforce the material they're looking at in the classroom,"* the doctor said.

In the success story that led Hernández to winning the **2022 STEM Excellence Award**, around 300 students had the opportunity to use 8 simulations in areas such as **Physiology, Cellular and Molecular Biology, Microbiology, and Biotechnology.**

*"Labster has provided us with a very stimulating environment that combines **gamification and storytelling** elements with the practice and feedback we want students to have,"* shared the professor.



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Transforming the lab through collaboration

In Hernández's opinion**,** the key to implementing and successfully developing virtual labs is collaboration **between the professors and the students themselves.**

*"These simulations encourage **teamwork**, especially if students have questions about certain concepts or theories from the session,"* she explained.

A further benefit she mentioned about using these platforms is that they make it possible for students to work in a **safe environment** in which they can make mistakes and start all over again, as well as facilitating student-teacher **feedback**.

"These simulations encourage teamwork, especially if students have questions about concepts." - Lizette Hernández.

***"Students are giving us very good reports** as a result of the experiential learning provided by the simulations,"* said the professor.

What's more, all these tools are combined with the **institutional platforms** offered by the Tec through **Edutools**, where Professor Hernández shares her experience so that more Tec academics can incorporate **education technology into their classes.**

“Don’t be afraid to step out of your comfort zone with these kinds of tools and take advantage of these opportunities because they offer many teaching and life skills,” the doctor stressed.

https://twitter.com/labster/status/1590751185614651393?cxt=HHwWgoC-ic7xvZMsAAAA

Labster’s 2022 STEM Excellence Awards

The **2022 STEM Excellence Awards** seek to recognize the work of **10 educators from across the globe** for blazing a trail of innovation and creativity through the **use of education technology**, known as EdTech.

*“The **STEM Excellence Awards** honor education technology innovators whose **passion for teaching and commitment** to student success are making a measurable impact within their community,”* said Michael Bodekaer Jensen, co-founder and CEO of Labster.

Labster is part of the academic software portfolio used by the School of Engineering and Sciences and the **School of Medicine and Health Sciences** at Tec de Monterrey.

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