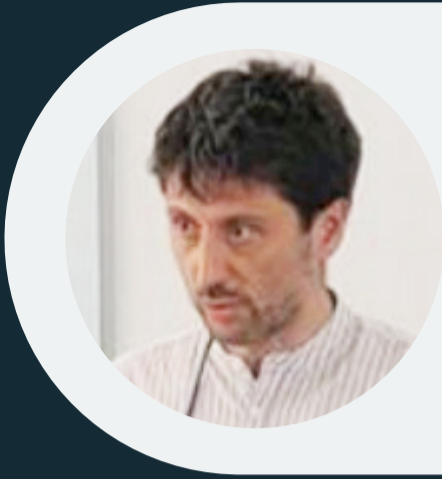




Empowering Student-Centred Physics Education: iOLab's Impact on Eugenio's Classroom

[macmillanlearning.com](https://www.macmillanlearning.com)



Eugenio Tufino is a High School Physics Teacher and a Physics Education Researcher at the University of Trento. As part of these roles, Eugenio has observed how iOLab works in both lower and higher educational settings. Eugenio was looking for a solution to remote lab work during the pandemic when he first started using iOLab.

About Eugenio Tufino's Course



In a given semester, there are several hundred students across multiple levels in Physics. Generating student-centred lab activities that focus on students' abilities can be very time consuming.

Courses: Physics Laboratories

Course Size: 10 classes of 20 students and 40 teachers

Institution: A region of Italian State High Schools

Goal: Student-centred lab activities

Macmillan Learning Technology Used: iOLab

Standout Features: Portability and versatility of the device



Exploring iOLab to facilitate hands-on Physics education

Eugenio heard about Macmillan Learning's iOLab device in 2020 and joined a working group with the device's creator to figure out remote lab work during the pandemic. As a result, a select group of high schools in Italy began using iOLab with the aim of enhancing the effectiveness of learning outcomes in physics labs. These teachers **observed significant results** with students during remote learning and continued using the device for in-person instruction.

Eugenio was thankful to have found Macmillan Learning's iOLab device because it **bridged the gap between physics theory and experimentation for his students.**

When deciding which lab products to use with his team and students, it was important to Eugenio that:

- ✓ The solution needed to be portable and affordable
- ✓ It would be versatile so a wide range of experiments could be conducted
- ✓ It would have a modern and student-centred pedagogical approach
- ✓ There would be lots of support and tutorials to quickly get students and teachers using the device

“I received excellent and truly friendly support from Macmillan.”

—Eugenio Tufino





How iOLab advanced students' experimental analysis skills through **authentic scientific exploration**

iOLab has **significantly improved the way we teach physics**. The device's capability to facilitate student-centred lab activities, which gradually build on students' abilities, has transformed the way Eugenio engages with students. iOLab enabled him to provide a more engaging, hands-on experience that nurtures students' experimental and data analysis skills. It has allowed Eugenio to create a dynamic and effective learning environment that truly resonates with his students, **making physics not just a subject but an exciting journey of discovery**.

iOLab has been instrumental in achieving Eugenio's learning objectives. The device's precise sensors, affordability, and user-friendly interface transformed his physics education approach. **The device's versatility ensures accessibility for all students, and its real-time data capabilities empower students to refine setups, estimate uncertainties, and compare results with theory.** iOLab enriches his students' understanding of physics and instils a deeper appreciation for scientific inquiry, making learning more authentic and engaging.

iOLab supports instructors

"I am truly grateful to Macmillan for the support provided, including materials and presentations, participation in online webinars, access to resources from the books that utilize iOLab, and the assistance of the software and sales teams."

iOLab engages students

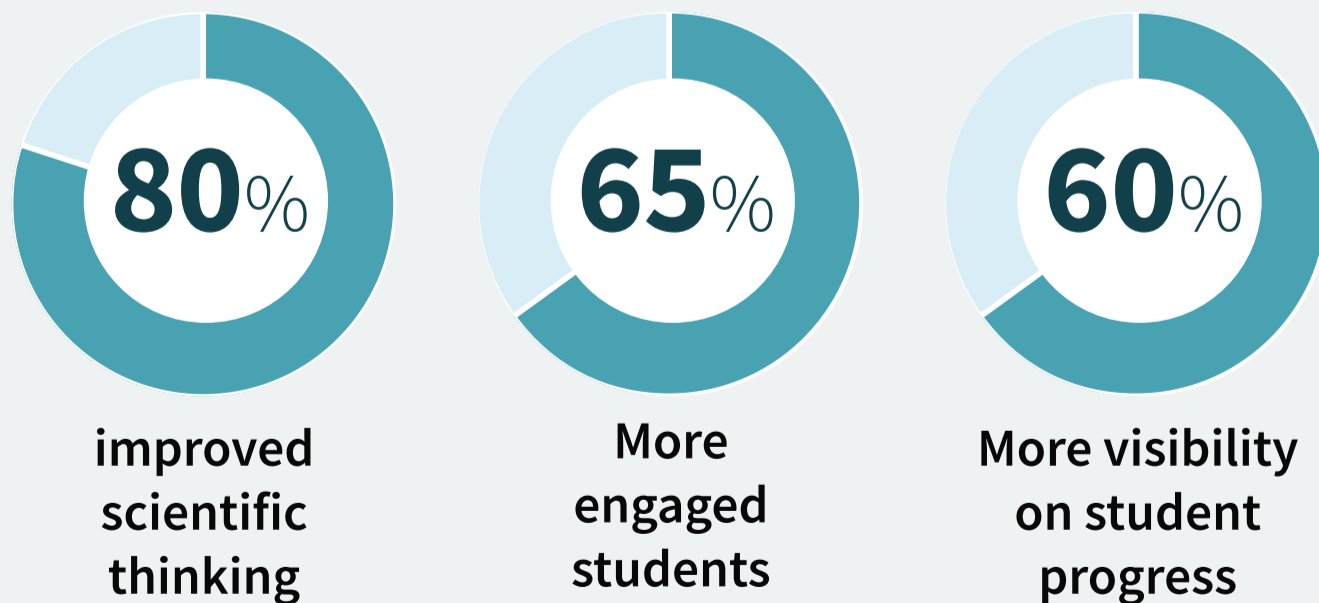
"The user-friendly nature of the graphical interface allows students to focus primarily on the physics itself, rather than getting bogged down in the technicalities of the tool."

How iOLab helped Eugenio meet his learning outcomes



How Eugenio felt the following attributes improved as a result of using iOLab

Ranking attributes as a percentage



Feedback from Eugenio's students

"I have collected overall feedback surveys among students regarding the use of iOLab, and the responses have been overwhelmingly positive."

Get Started with iOLab Today!

iOLab is a revolutionary hardware and software solution for your physics lab. It combines all the measurement devices and components needed for hundreds of physics labs in a single device and links them to a software solution for gathering data and recording results. iOLab can replace or augment your current lab set up and is perfect for online, hybrid, and traditional classes.

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