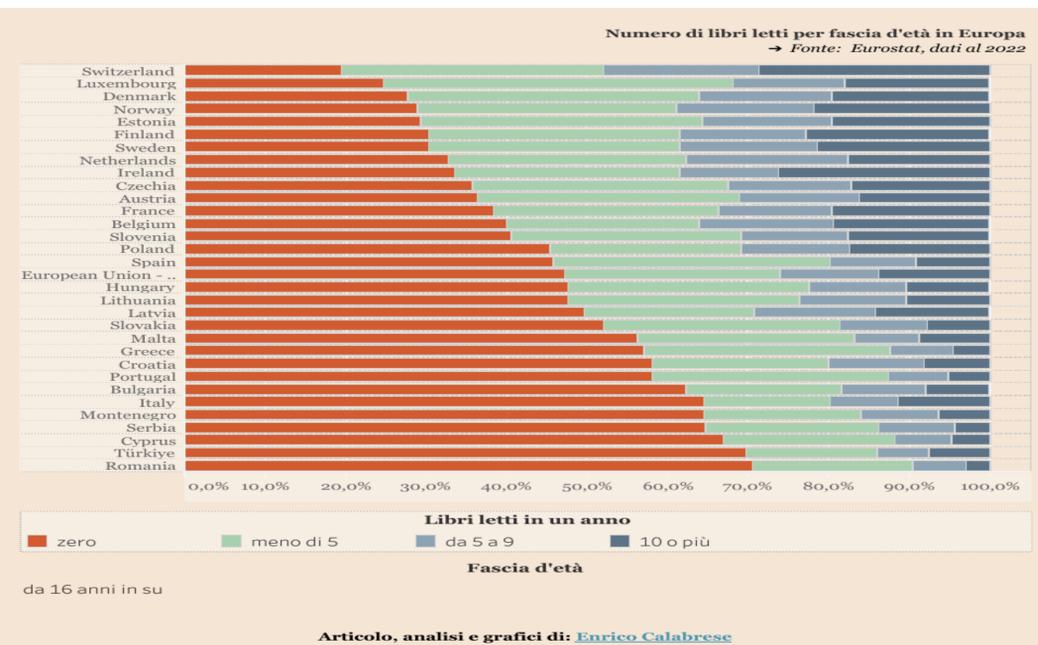


“Scientific Literature in STEM teaching and learning with curricular lessons”

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ABSTRACT

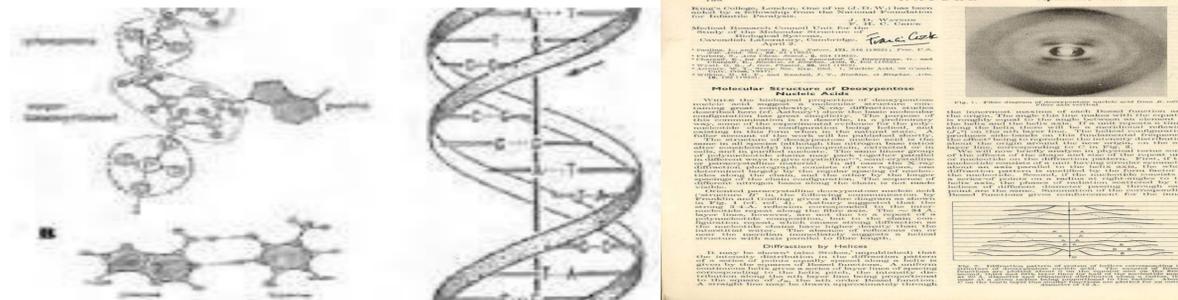
The research path refers to curricular training activities carried out over the years to motivate students to study STEM disciplines and to recover in an innovative way disciplinary deficiencies by involving them with active scientific reading strategies and guided activities. Starting from the international 2024 Eurostat feedback that identifies in many middle and high school students little interest in reading books, different reading innovative didactic paths with books written by scientists have been designed and created into the curricular lesson hours of some STEM disciplines.



RESULTS

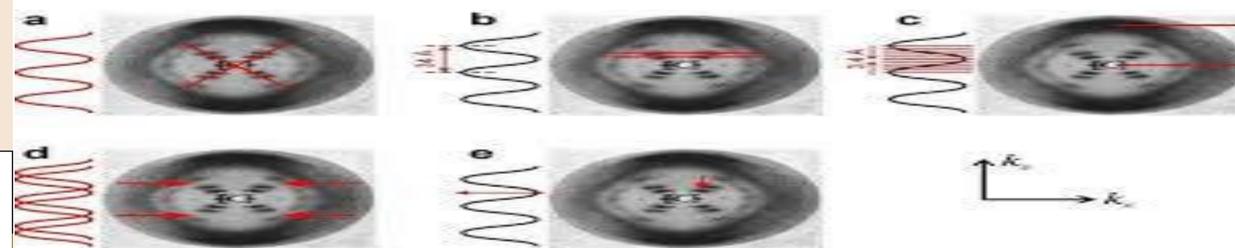
Maximum involvement both individual and collaborative co-working activities demonstrating excellent skills in re-elaborating digitally presenting all results.

To educate in critical thinking, students were invited to tell impressions about the world of research described in the book evaluating the current differences in today's research in this sector, interviewing a researcher in the sector with specific question



INTERDISCIPLINARY EDUCATION WITH BOOK READING

Collaboration with teachers from different disciplines, particular attention to the figures of the protagonists of the chemical and physical sciences of the last century to experimental techniques of structural biology. Technique of crystallography with X-ray diffraction that allowed the discovery of the three-dimensional structure of DNA



DISCUSSION

The book “The Double Helix” presents places where the human and scientific adventure of the discovery of the structure of DNA. The histories of research centers and universities, scientific societies that have represented significant points of departure for studies of international excellence were therefore analyzed with guided research

SCIENTIFIC PLACES FOR THE DNA



CONCLUSION

Innovative STEM curricular lessons with scientific book to promote passion for scientific literature proposing the active reading of Nobel Prize’s Book. The work carried out has educated the critical use of the proposed reading sources, the analysis of scientific language proposing an integrated, innovative and non-standardized but flexible and adaptable teaching approaches

Student readers as protagonists
↓
Reading, Analysis, Communication to promote OPEN BOOK EDUCATION

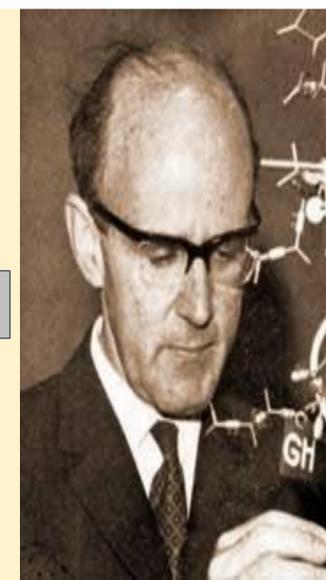
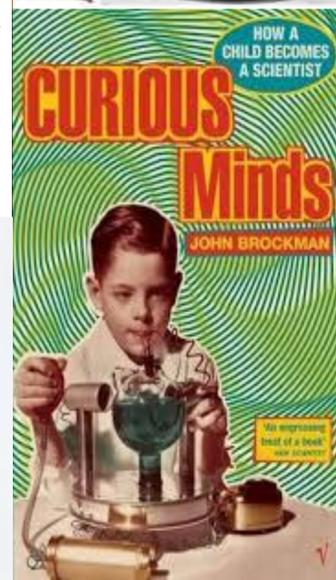
METHODS

Engage with the IBSE methodologies and the swift progression of scientific advancements in didactic books itineraries. The educator, acting as an educational architect, assumes a pivotal role by devising innovative learning also leading to critical thinking in “The Double Helix” book the twelve concluding reviews presented, to summarize the content by schematizing the judgments in favor and the criticisms



BOOK STUDENT TALKS
“ACTIVE CURRICULAR SCIENCE ORIENTATION”

27 BIOGRAPHIES OF SCIENTISTS



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