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AN INVESTIGATIVE METHODOLOGICAL APPROACH USING EVENTS IN THE MANGÁ (DR. STONE) TO TEACH ELECTROMAGNETISM TOPICS IN HIGH SCHOOL.

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The research process is extremely important for the consolidation of scientific knowledge, however, in a classroom, this whole process ends up, most of the time, being run over by a contents teaching and disconnected from the student's reality, making it increasingly difficult interest in the content. Thinking about bringing the motivations that led the beginnings of scientific and critical thinking into the classroom, this work will focus on Investigation Teaching to outline a sequence of classes within the content of Electromagnetism, in order to understand the process physical functioning of an electric generator through the phenomenon of electromagnetic induction. To create an instigating environment for the investigative process, a manga and its animated adaptation will be used as a playful approach, more specifically the series by Dr. Stone, to elucidate some problem situations and develop demonstrative activities of an investigative nature. The series brings in its history a scientist character and, in several situations, uses in its plot of some aspects related to science, placing the interlocutor immersed in a story with an easy language and whose target audience is young people. The structure of an Investigative Teaching Sequence (ITS) will be used to develop an educational product, seeking to create conditions in the classroom for students to think, speak, read and write about science, idealizing Scientific Literacy. The planning of ITS's activities is based on Vygotsky's sociocultural theory and will be structured with the aim of placing the student in the role of the protagonist of the series to solve problem situations and develop, at the end of the process, an electric generator and an instruction manual during a moment called “The Kingdom of Science Workshop”. To facilitate interaction between students and give the teacher a constant feedback from the learning process, conceptual tests based on the Peer Instruction method will be used through the Plickers application. The application of SEI will be made in a class of the second year of High School, and will be part of a qualitative research based on a Case Study methodology. It is expected that the application of ITS will provide a greater interest in classes, in addition to promoting the understanding of the contents covered, making students able to develop scientific and critical thinking in the context of science during investigative approaches.