

Área: **EDU**

Online scientific dissemination video: impact on the perception of basic school students in relation to scientific research in electrochemistry.

Franciani C. Sentanin (PQ),^{1*} Marcos R. V. Lanza (PQ),¹ Ana C. Kasseboehmer (PQ).¹

fransentanin@usp.br

¹Institute of Chemistry of São Carlos, University of São Paulo, São Carlos, São Paulo, 13560-970, Brazil;

Keywords: Scientific dissemination, science dissemination video, elementary school students.

Highlights

Youtube videos used as a tool for disseminating scientific research.

Perception of elementary school students.

Disseminate the value and importance of scientific research in public universities.

Abstract

The role of communicating scientific findings is extremely important, as its main objective is to bridge the gap between the scientific community and the general population [1]. Youtube videos are used as a teaching tool and have effectively contributed to student learning [2-4]. However, with regard to the dissemination of research carried out by universities, there are no reports of this type of disclosure. In the present work carried out the dissemination and analysis of the impact of a scientific dissemination video of an electrochemical research on the perception of elementary school students in relation to scientific research and the public university. The video was developed to promote the project entitled "Study and application of electrochemical technology for the analysis and degradation of endocrine disruptors: materials, sensors, processes and scientific dissemination, and shows the importance of dyes for everyday life and how much they have been research targets. The video was used as an activity for eighth grade students of an elective subject called "I scientist" at a public school in the city of Ibaté. The analyzes were based on two questionnaires, the first being answered before the students watching the video and the second being answered after the students watching the video. The data were analyzed by the simple categorization process [5] according to the categories: A Perception of the Public University and the Importance of Research at the Public University. It was found that it is possible to disseminate scientific research through videos used as an activity in classes for elementary school students, and that the video was able to propagate the value and importance of scientific research in public universities.

Acknowledgments

The authors wish to express their gratitude to the University of São Paulo (USP), to the IQSC, the schools and students who participated in the study and in the Learning with the Undergraduate Dean's Community Program Studies at USP. The authors are also grateful for the financial support from FAPESP (Process 2014/50945-4, 2017/10118-0, 2018/20145-7 and 2019/04543-5), CNPq (Process 465571/2014-0) and CAPES (Process 88887.126/2017/00).

REFERENCES

- [1] Myers, G. Discourse Studies, 5.2, pp. 265-279, 2003.
- [2] Richards-Babb, M., Curtis, R., Smith, V. J. and Xu, M. Problem Solving Videos for General Chemistry Review: Students'. J.Chem.Educ. 2014, 91, 1796-1803.
- [3] Ranga, J. S. Customized Videos on a YouTube Channel: A Beyond the Classroom Teaching and Learning Platform for General Chemistry Courses. J.Chem.Educ. 2017, 94, 867-872.
- [4] Roshini Ramachandran, R., Sparck, E. M., and Levis-Fitzgerald, M. Investigating the Effectiveness of Using Application-Based Science Education Videos in a General Chemistry Lecture Course. J.Chem.Educ. 2019, 96, 479-485.
- [5] Bryman, A., Burgess, B. (Eds.). (2002). *Analyzing qualitative data*. Routledge.