

TITLE: I'M ALSO A SCIENTIST: HANDS-ON ABOUT HANDS HYGIENE

AUTHORS: MORESCO, T. R.; FONTANA, L.B.; SOUZA, J.M.A.; FERREIRA, L.R.

INSTITUTION: UNIVERSIDADE FEDERAL DE SANTA MARIA, RS (AVENIDA INDEPENDÊNCIA, 3751, PRÉDIO 2, SALA 103, CEP 98300-000, PALMEIRA DAS MISSÕES – RS, BRAZIL)

ABSTRACT:

Currently understanding science and how it is made is no longer the privilege of scientists, it has become the right of all citizens. Understanding the scientific process brings with it the ability to analyze and understand natural phenomena, making the individual capable of actively participating in decision making in everyday situations. However, teaching about bacteria, fungi and viruses represent a challenge because these living beings are small, complex and visible only under microscope, being far from the everyday reality of students. In this context, the objective of this project was to improve the teaching of microorganisms in schools of the municipal school network of a country town of Rio Grande do Sul. For that, we use the hand hygiene theme and use a hands-on methodology with 152 students of elementary school (6th, 7th, 8th and 9th grades) of nine municipal schools. Activities took place on three different days. On the first day of class, a lecture was held to contextualize the scientific method and the importance of hand hygiene. Furthermore, the students elaborated two questions: 1. Are there microbes in my hands? 2. What is wrong with it being there? We helped the students to develop a methodology to answer these questions and write the protocols. From this, they collected, with swab, the microorganisms present in the unhygienic hands to make a Petri dish culture with PCA culture medium. The students cleaned their hands correctly and collected again to make a new culture to realize that after the hygiene the amount of microbes decreases. On the second day, the students went to the microbiology laboratory of UFSM, where they observed and discussed the results under the guidance of the researchers, prepared slides and observed the bacteria under a microscope. On the third day, we returned to school, resumed the concepts studied and recorded the students' speeches. The results obtained were the improvement in students' scientific vocabulary and the understanding of the existence of microorganisms, even in apparently clean environments. In addition, they were able to understand the importance of the hands in the transmission process of the pathogenic microorganisms and their relationship with health. Another perceptible learning was that science and the scientific method are part of the everyday life and is within reach of all.

Keywords: laboratory, microorganisms, schools, teaching

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