

TITLE: STOP MOTION WORKSHOP: AN EXPERIENCE ON TEACHING MICROBIOLOGY FOR FUTURE EDUCATORS

AUTHORS: SOUZA, A. S; DE LUCENA, J. M. V. M.

INSTITUTION: INSTITUTO FEDERAL DO AMAZONAS (IFAM), MESTRADO PROFISSIONAL EM ENSINO TECNOLÓGICO (MPET). AV. SETE DE SETEMBRO, 1976. CEP 69020-120. MANAUS, AM, BRASIL.

ABSTRACT

Microbiology has been an increasingly evident field, because of its characteristics as a basic science, but even more due to its applicability in the industrial fields such as food, biotechnology and pharmaceuticals. As a core theme to be learned by future Biology and Science teachers, it is necessary to include new tools of educational technologies to involve and engage the students even more in the learning process. The proposal of this study was to show how the Stop Motion Technic (SMT) could be used by Biology students to learn special topics on microbiology. SMT consists in a video animation built on the basis of a sequential photo shooting of a specific scenario, which gives the impression of movement based on the velocity given to the photo show. A workshop of 8 hours was conducted with the students to explain and discuss the basic concepts of SMT, its origin, techniques to plan a video, how to elaborate scripts, to choose the characters, scenarios and others. It was presented in the form of a Windows Movie Maker tutorial used for the construction of the video. After that, the students were organized in three groups. They should choose a Microbiology topic among the previously studied ones and elaborate a script, check the necessary materials to create a scenario and start build it based on their original scripts. On the second day, the students mounted the planed scenario and started the photo shooting, using the Windows Movie Maker to assemble their photos into videos. The students produced SMT videos about 1. Lithic cycle and lysogenic cycle, 2. Transduction process and 3. Biosafety in the laboratory. The students reported that this strategy increased the interest and facilitated the learning process of the chosen topics, although they had also to learn the SMT in a such short time to produce the videos. In addition, the video production helped to understand the topics that they considered either complicated or interesting in a collaborative way of working. Considering the relevance of finding different ways to teach in order to facilitate learning, the SMT for future educators can provide a diverse and creative way to teach/learn microbiology in a cooperative atmosphere among students and teachers.

Keywords: microbiology teaching, teaching methods, stop motion technique

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