

Adaptation of Experimental Practices in Microbiology to the Virtual Format without Dying in the Attempt †

Bravi Viviana ¹, Ponce Ponte Micaela ^{1,3}, Rocca, Diamela ^{1,2}, Silvero C.M. Jazmín ^{1,2}, Alovero Fabiana ^{1,3}, Becerra M. Cecilia ^{1,2,*}

¹ Dpto. de Ciencias Farmacéuticas, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba

² Instituto Multidisciplinario de Biología Vegetal (IMBIV) – CONICET

³ Unidad de Investigación y Desarrollo en Tecnología Farmacéutica (UNITEFA) – CONICET. viviana.bravi@unc.edu.ar (V.B.); mponceponte@unc.edu.ar (M.P.); diamela.rocca@unc.edu.ar (D.R.); jazmin.silvero@unc.edu.ar (J.S.); fabiana.alovero@unc.edu.ar (F.A.); maria.cecilia.becerra@unc.edu.ar (M.B.)

* Correspondence: maria.cecilia.becerra@unc.edu.ar (M.B.);

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Abstract: The current global pandemic has triggered a paradigm shift in education, particularly in hard science teaching, where experimental practice has always played a fundamental role. We described the Communication and Information Technologies (CIT) used to overcome the obstacles of teaching a course for undergraduate students (Microbiología General y Farmacéutica) completely online for the first time. The course included 5 laboratory activities and 6 exercise classes, and an analysis of clinical cases. The topics addressed were reorganized into 8 Virtual Integration Activities (VIA) supported in a Moodle website platform. Each VIA consisted of homework the students had to do before a live class and the final evaluation. Bibliography study material in audiovisual format and a Q&A forum was always uploaded to the Moodle platform with anticipation. In addition to the website, a Whatsapp group, a mobile quiz application, and a competition that lasts the course were also incorporated to improve student-teacher interaction. The implemented CIT has brought many benefits to the course, which is reflected in the student learning process and the level of satisfaction in an end-of-course survey. Therefore, we are thinking of continuing to use the CIT when we restart the regular activities.

Keywords: experimental; strategies; virtual; pharmaceutical; microbiology.

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Conflicts of Interest

The authors declare no conflict of interest.