

Title: AWAKING RESEARCH SKILLS THROUGH IN PRACTICAL TEACHING

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Abstract:

Research can become a learning instrument which enables the student to make a bibliographical search, develop initiative and autonomy, read, analyze, interpret and synthesize theoretical and scientific texts. It can also require that the student have to learn to make correct bibliographical references, develop a research methodology and a scientific report, and especially it permits to develop critical skills. In the practical teaching of Environmental Microbiology the environmental microorganisms of air, water and soil are studied. To make possible the student to know what is a research associated to microbiology, the purpose of this study is to deliver practical classes of air and soil microbiology as a laboratory research. The steps for the development of work are the following: - explanation by the professor of what is a research and how a laboratory research is done; - division of the students in groups of two members; - each group makes a search in different data basis; - all groups present in the classroom the article found; - selection by the students, under the professor supervision, of what experiment é viable to be implemented (after checking the availability of materials and laboratory equipments); - survey of the material to be used; - preparation of the material; - execution of the experiment; reporting of the experiment according to the scientific norms. Working with this methodology for several years I could observe that the majority of the students do the bibliographical search and the practical experiment without difficulty, but for writing the report some of them try to copy from colleagues. To avoid this problem I have to be attentive and to dispose of a teaching assistant for helping those who need some support. This strategy has permitted to verify that the present student likes to stay linked to a computer and connected with what happens in the world, as well as has facility to execute a work, but has "laziness to read" and difficulty for synthesis and writing. Thus, it is required that the professor develop teaching strategies that permit the student to use the skills he already has and to overcome his handicaps. The scientific work permits the student to be the protagonist of his knowledge and to solve his greatest handicap, the lack of the skill to write.

Keywords: Teaching; learning; microbiology; scientific writing, scientific report.