

Title: Another face of the Biological Sciences: investigating the outcomes of working on Science Popularization projects as an undergraduate student in the professional choice

Monica Bucciarelli Rodriguez

Departamento de Biologia Geral, Instituto de Ciências Biológicas, UFMG, Brazil.
monicabr@icb.ufmg.br

Juliana Santos Botelho

Departamento de Biologia Geral, Instituto de Ciências Biológicas, UFMG, Brazil

Adlane Vilas Boas

Departamento de Biologia Geral, Instituto de Ciências Biológicas, UFMG, Brazil

Evaluating the impact of Project “Science for reading and listening” (Belo Horizonte, Brazil)

A graduation in Biology provides students with a choice in their career as scientists, teachers and education consultants, for instance. In this context, science communication is often seen as a minor activity of specialization for university students, as laboratory and field investigations seem to be more appealing during this period. However, activities aiming at creating public engagement with science have also acquired major importance in the recent years (Brasil, 2006; 2010; Bauer & Jensen, 2011; Neresini & Bucchi, 2011; Frezen, Weingart & Rödder, 2012; Vogt & Polino, 2003;).

As Bucci and Trench (2014, p. 5) suggest:

“Public engagement activities are nowadays regarded, in several countries, as a relevant dimension of the mandate – as well a responsibility – of research institutions in the context of the so-called third mission of universities. On this basis, scholars and policy-makers are discussing the most appropriate indicators to identify and analyse the range and impact of such activities”

This study is a response to this overall quest for structured and systematic evaluation of public engagement training activities, such as those carried out by the project “Science for reading and listening” (“Ciência para ler e ouvir”). The students involved were mainly from the Biological Sciences, but also Communication and Arts undergrads.

The project “Science for reading and listening”, which exists now for over 10 years at the Universidade Federal de Minas Gerais, in Belo Horizonte, Brazil, deals mostly with the production of texts for radio broadcasting and distribution in metropolitan buses and over the Internet.

This work aims at investigating the professional choices of undergraduate students who had an opportunity to work in projects of science communication and popularization while studying at the Federal University of Minas Gerais.

Method

It was applied a semi-structured online questionnaire.

A sample of 27 respondents (51%) out of an universe of 53 former or current students were surveyed.

The questions scrutinized a number of subjects, including their original motives for working in Science Popularization and possible changes in their view of Science and professional opportunities in this field.

Results

Biological Sciences students were 63% of the respondents, 11% were Communication students, 7.4% were Pharmacy students and 3.7% of them study other courses. The average age of the respondents was 26 years.

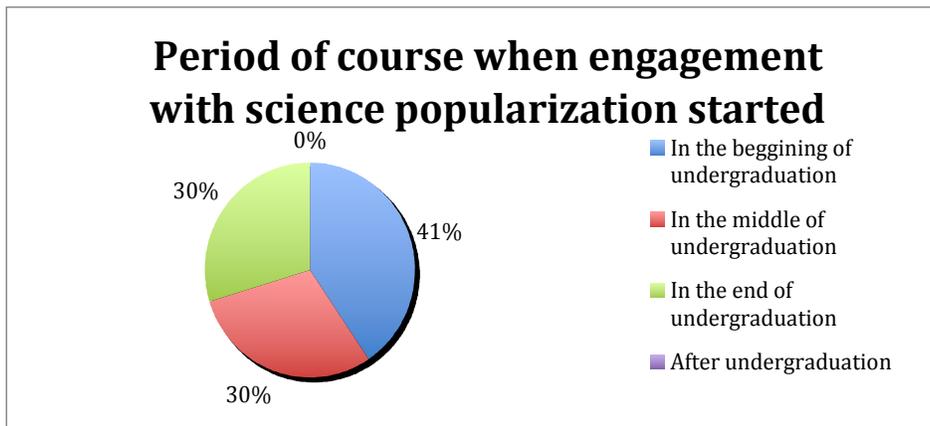


Fig. 1: Period of undergrad studies in which activities with science popularization started

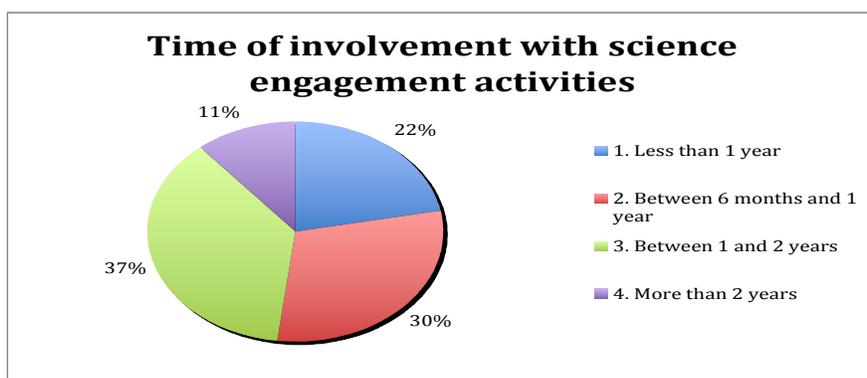


Fig. 2: Time spent on science popularization activities

relationship between your current occupation and science engagement activities

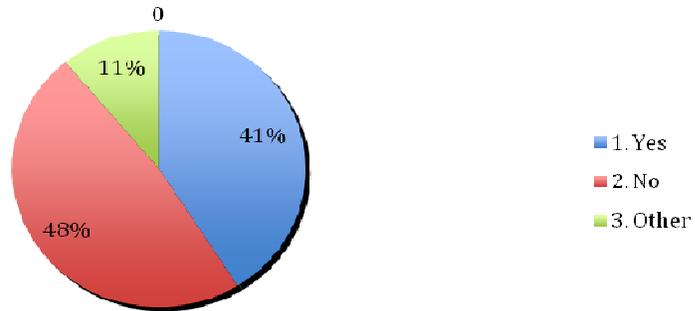


Fig. 3: Answers to the question: Is there any relationship between your current occupation and the activities performed while in the project?

Still willing to working with science communication/science engagement activities again?

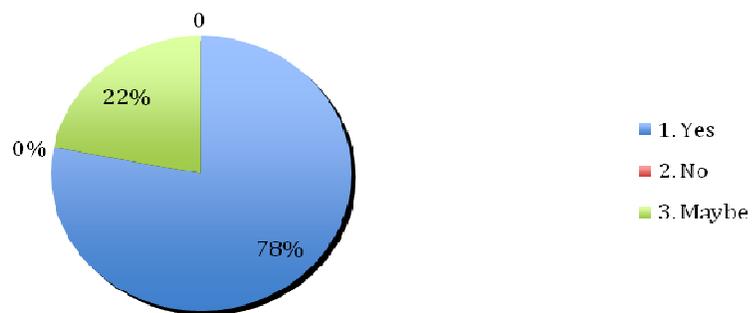
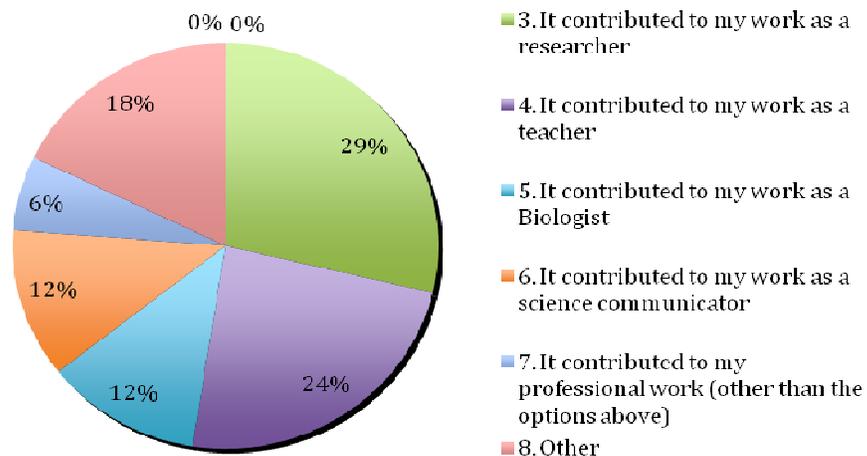


Fig. 4: Answers to the question: Are you willing to work with science communication/science engagement activities again?

Main contribution to career - Biological sciences students (N= 17)



Main contribution to career - Communication students (N=3)

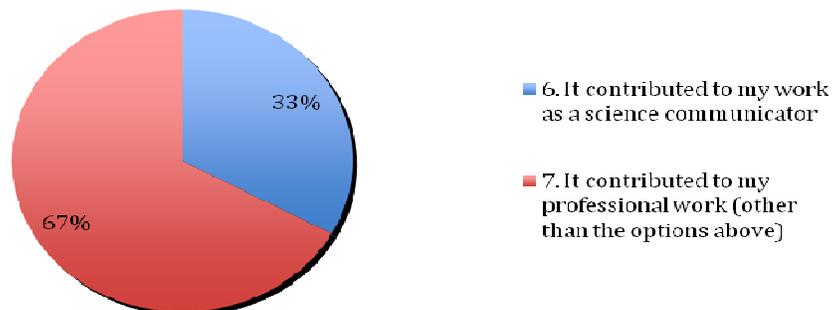


Fig. 5: Contribution of science communication to professional career: Biological Sciences students vs. Communication students

There seems to be a high level of impact of science engagement activities in our sample's career profile, in as much as 78% of the entire sample is willing to work with science engagement activities again.

However, there is a general gap between students' current occupation and their willingness to working with science engagement activities again. This suggests that a substantial number of students which have being trained to work with science communication may be not finding their way on the market after leaving the project.

One may argue that Communication students would be more opened to acknowledge the importance of science engagement activities, namely those of science communication, then those students from any other field. Surprisingly, 53% of Biological Sciences students stressed that science engagement activities contributed to their work as both a researcher (29%) and a teacher (24%). This means that science engagement activities play an important role in their professional choice, even though they are not working as a science communicator currently.

Yet, whether related to their current occupation or not, science engagement activities still play an important contribution to the development of their professional skills, as showed the optional statements:

“Enormously. As a teacher, is has expanded my view about education beyond the classroom. As a researcher, It reinforced my belief in the need to offer knowledge in an accessible manner to different publics as one great goals of science”

“I developed better writing skills using scientific language, I learned how to present a scientific information in a accessible manner, I had the experience in the use of several media for communication of the information.”

“It (the participation in the project) prepared me for the dialogue between my research/work/profession with society, in addition to the great learning in my area of knowledge.

“I understood the importance and the need for popularizing science as a means to construct a more solid and conscious citizenship.”

“It was the impulse I needed for my M.Sc. Degree.”

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Acknowledgements

The authors would like to thank the financial support of FAPEMIG which has provided Adlane Vilas-Boas with a travel grant.