



UNIVERSIDADE FEDERAL FLUMINENSE
INSTITUTO DE BIOLOGIA
CURSO DE MESTRADO PROFISSIONAL EM DIVERSIDADE E INCLUSÃO
PROVA DE LÍNGUAS – SELEÇÃO – 2019

**Número de
Referência do
candidato
CMPDI**

English examination

1) Translate to Portuguese the text that is underlined in the paper you received : (8,0 pontos)

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

2) **Compose in English a title and an abstract (minimum 10 lines and maximum 20 lines) for the paper you received. (2,0 pontos)**

[illegible]

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In the ongoing discussions about the lack of diversity in science, it can be easy to focus solely on demographics. And although improving the numbers is a necessary start, it is not enough to truly solve the problem. Many graduate programs, for example, are making concerted efforts to recruit students from historically marginalized groups, including African-Americans, Latinos, and students with disabilities, but this approach will only succeed if faculty members, administrators, and the scientific community at large also consider the environment that the students are being recruited into, and how to make those spaces truly inclusive arenas where a diverse group of scholars can thrive.

In other words, diversity and inclusion, while commonly conflated, are not the same. Inclusion speaks to whether individuals have equal access to opportunities and empowerment. Within the context of graduate education, for instance, it means going beyond focusing exclusively on the number of students belonging to particular populations and moving toward creating a culture in which students from historically marginalized backgrounds feel that they are truly part of the fabric of the institution. This transition is critical if we in the scientific community want more students from historically marginalized groups to pursue careers as scientists after they complete their training. To put it plainly, if students don't feel included in the academic and scientific communities, they are more likely to leave science, and the diversity problem will remain unsolved.

Diversity and inclusion, while commonly conflated, are not the same - Seeing yourself as a scientist

When I was in seventh grade, my dad took me to a local college campus to hear a talk by an African-American woman astronaut, and afterward I had the opportunity to meet her. As I heard about her passion for science, it felt like the world opened up for me. Simply seeing someone that I could personally identify with, and having the opportunity to talk to her about her life and work, allowed me to believe that my interest in science could turn into a career one day, and I gained confidence in saying that I wanted to be a scientist when I grew up. The sentiment behind this early experience still rings true for me today: I continue to envision new possibilities for myself when I meet and identify with people who are senior to me.

We in the scientific community must make active efforts to ensure that graduate students of all backgrounds have similar opportunities to visualize themselves as scientists by making sure they have access to people they can relate to. For instance, in addition to crucially important long-term efforts at the institutional level, such as improving hiring processes and developing programming around understanding biases, academic departments can also make an immediate and powerful impact with their regular seminar series. These talks are a great opportunity to showcase scientists of varied backgrounds and experiences—but if not planned with enough care, they can have the opposite effect by creating a monolithic vision of who can be a scientist.



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For seminar series to reach their potential as tools to promote inclusion, organizers must take care to invite speakers from varied backgrounds. Having the chance to see and interact with scientists across a range of dimensions of diversity can help students develop their identities as scientists. It can even build confidence and excitement toward continuing in a career in science, because it helps them visualize themselves as established scientists one day. On the other hand, if planners don't actively pursue speakers of varied backgrounds, students from historically marginalized groups are likely to attend weekly seminars for years and not see any speakers that they feel they can personally identify with. This experience can leave students disheartened, discouraged, and feeling that they don't have a place in the scientific community.

Conference planners and scientific society meeting organizers must make similar considerations when planning their events. This includes, for instance, working to ensure that efforts to increase the participation of women at scientific conferences extends across a range of ethnicities, cultural backgrounds, and disabilities.

Open to discussion

For an environment to be inclusive, students also need spaces to openly and honestly vocalize their feelings and anxieties related to broader social issues. In the past few years, for example, I have talked with many students across the United States from historically marginalized groups who feel personally affected by the growing discussions around social justice. When some of these students have tried to talk to their faculty advisers about these experiences and feelings, however, the students have been told that, because these issues aren't directly related to science, they shouldn't be discussing them or even that they aren't important. This type of response can alienate students when they are already feeling vulnerable and augment existing feelings of isolation.

Faculty members and advisers have to recognize that who students are as scientific trainees cannot be separated from their larger personal identities, which have been shaped by the way the world at large interacts with them. Some faculty members may think that they need to share the same background as a student to be able to talk about issues related to identity, but this is not the case. What is important is that the faculty mentor has the ability and desire to show empathy. For example, if a student says that they feel isolated because they are the only individual from a particular ethnic group in their graduate program, a mentor can have a positive impact simply by letting the student know that they are heard and that their concern is recognized. The mentor can also share aspects of their own journey that were particularly difficult for them. Even though these challenges may not directly relate to what the student is facing, the student can benefit from connecting with the mentor on a personal level.

Creating an inclusive scientific community, particularly within the context of academic science, is a challenging and multidimensional issue. Nonetheless, there are efforts that require a rather small output of effort and can potentially have a very large payoff. What it really comes down to is that faculty members and administrators serving as mentors must be open to listening to and acting on students' needs, which may be related to students' personal identities and cultural experiences. It may take some time to become more comfortable broaching these subjects, but by taking on this challenge, we will ensure that we cultivate future generations of talented young scientists that, as a result of the richness of the differences in their backgrounds and life experiences, will be poised to make unique and meaningful contributions to science.

