

Is a doctorate an added value for the development of future skills?

Marcelline BANGALI

Professeure à l'Université Laval

Chercheure en psychologie du travail et de l'orientation au Centre de recherche et d'intervention sur l'éducation et la vie au travail (CRIEVAT)

Introduction

In Canada, graduate studies are supported by federal and provincial funding not only to provide university professors for the future but also to ensure a competitive economy through an highly qualified human resource. However, in many disciplinary fields, the objectives assigned to this training since its origins seem to have remained unchanged. This lack of evolution affects negatively the perception of PhD graduates competencies and their integration into the job market. For some potential employers, there is an incompatibility between the skills developed at the doctoral level and those sought by organizations. This observation raises questions that need to be addressed by research data. This is the objective of this paper. Recent research on the skills of PhD holders shows that these graduates have skills that companies would benefit from using in a highly competitive world.

The achievements of doctoral training

Several studies show that doctoral training allows the development of specific skills (Durette et al., 2012; OCDE, 2008; Deloitte conseil, 2010; Rapport Kelly, 2012; Association des docteurs de l'UPMC, 2015). Unfortunately, these skills are often misunderstood by the graduates themselves, who find it difficult to value these skills, and by some potential employers, for whom the benefits of this training are still unclear. In line with existing research, a recent study on PhD graduate skills describes these skills, their specificity and how they are used. This research highlights a consensus among the participants (PhD graduates and heads of organisations) around the competencies presented below (Bangali et al., 2019).

- **Problem Solving:** analyzing a complex phenomenon or context from different angles to produce effective solutions; summarizing and organizing large amounts of information efficiently; looking critically; being creative.
- **Learning and adaptability:** rapidly integrating new knowledge.
- **Communication and Writing:** communicate ideas orally and in writing in a clear and structured manner.
- **Responsible behavior and personal qualities:** working rigorously; carrying out complex tasks independently; showing intellectual curiosity; analysing various situations critically.

These results show that doctoral training could be a real asset for the development of future skills, especially those that are difficult to automate: "Many reports highlight the importance of tasks that require skills that are difficult to automate and are likely to remain so for the foreseeable future. These tasks involve "abstract and complex decision-making skills, with a strong emphasis on creativity, critical thinking, interpersonal and social skills" (Johal and Urban, 2020, p.14).

92.8% of participants in the research conducted by M. Bangali et al (2019) considered that the skills developed at the doctorate level facilitated their adaptation to employment. An analysis of the responses to open-ended questions from those in positions that did not necessarily require a PhD degree at the time of hiring highlights aspects that are consistent with the strengths of doctoral training in developing skills that are difficult to automate:

- *The philosophy leads to the development of a great capacity to solve problems and adapt to different situations.*
- *The PhD has allowed me to acquire a great capacity to analyze complex situations using a diversity of approaches and points of view.*

The majority of respondents consider the skills acquired at the doctoral level to be very (66.7%) or somewhat (18.5%) useful to them. These results can be supported by the interview excerpt presented below.

- *In my work, my doctoral training helps me to think about current trends and challenges. It has given me more rigour, more capacity for analysis and synthesis of the situations we face as an organization.*

Regardless of the type of position held, the contribution of the skills developed at the doctoral level seems undeniable when graduates know how to put them to good use according to the needs of the environment in which they work. However, this is not without pitfalls for both organizations and graduates. Difficulties are just as much related to the lack of knowledge of the private business environment as to the perceptions of employers, who are often prejudiced against doctoral graduates.

Conclusion

As highlighted in the OECD report on the careers of doctoral graduates (2011-2012), doctoral graduates are and could give a bigger contribution to meeting the challenges of the new millennium. In order to do so, it seems important to reach a better recognition of the value their achievements bring.