Doctoral Supervision: A Best Practice Review

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A "doctoral student" is the term for a student undertaking the highest level of university degree (a doctorate). "Supervisor" is the term for the academic, or academics, who act as their guide. Unlike taught classroom-based degree courses, doctoral degrees in the UK are normally only, or mainly, focused upon a single intensive research study into a specific topic. Such degree courses facilitate the development of students into highly specialist autonomous researchers capable of independent thought. Typically, a blend of support is provided to each doctoral student which consists of an elective development program of research methods learning opportunities alongside dedicated supervisor support from one or more academic members of staff called "supervisors". It is the expectation that each supervisor will act as a guide and mentor for the doctoral student, thereby enabling them to successfully complete their program of research. This entry relates primarily to the UK model of supervising a doctoral student. Doctoral programs in other countries may differ.

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Alongside the more common university-taught degrees, doctoral degrees offer a different experience for students. Whereas the traditional classroom setting for teaching facilitates the transfer of mainly explicit knowledge, research degrees offer an emphasis on the doctoral student developing tacit knowledge and understanding. Polanyi [1] defines explicit knowledge as being that which is theoretical and codified, and tacit knowledge as being based upon the development of an individual's experience and skills.

Today's doctoral degrees originate from early forms used within mediaeval universities and were based upon an apprenticeship model [2] which then later evolved in the nineteenth century [3] into the precursor for the current format in which the student undertakes a program of autonomous research [4].

The most common doctoral degree, the Doctor of Philosophy (PhD), which began in the nineteenth century, was a way of training people to become career academics, by using an experienced supervisor (advisor) as a guide [4][5]. In this scenario, the doctoral student gained new knowledge by sharing experiences, and working alongside their supervisor. This friendly one-to-one relationship has now been replaced with demands for a timely completion within a 4-year period, where each doctoral student makes an original contribution to the body of knowledge for their chosen discipline to demonstrate that they are "worthy" of the award. This contribution may be in the form of a better understanding of a topic, or in certain fields, may lead to the generation of important discoveries, and sometimes even new technologies.

Doctoral students are most often supervised by a main first supervisor (sometimes called a director of studies) and a second supervisor [6]. Doctoral supervision itself should be considered as a form of pedagogy [7] in which the supervisor takes the role of guide and critical friend. Recent moves to online teaching have opened up new opportunities for using educational technology to support supervision [8], and have proven to be beneficial for supervision in terms of flexibility, and also the encouragement of diversity and inclusion [9][10]. Whichever way supervision is actually delivered, there remains a lack of understanding concerning the requirements to make it successful [11]. We recommend that the following dimensions of good supervisory practice should be considered, i.e., selecting the right doctoral student, considering the supervisor-doctoral student relationship, understanding the power dynamics between supervisor and doctoral student, integrating doctoral students into the research culture, protecting the mental health of doctoral students, supervising doctoral students, training supervisors, mentoring doctoral students, and assisting doctoral students to complete their studies.

References

1. Polanyi, M. The Tacit Dimension; Doubleday: New York, NY, USA, 1983.

2. Bernstein, B.; Evans, B.; Fyffe, J.; Halai, N.; Hall, F.; Jensen, H.-S.; Marsh, H.; Ortega, S. The continuing evolution of the research doctorate. In Globalization and Its Impacts on the Quality of PhD Education; Nerad, M., Evans, B., Eds.;

Sense: Rotterdam, The Netherlands, 2014; pp. 5–30.

3. Lee, A.L.; Bongaardt, R. The Future of Doctoral Research: Challenges and Opportunities, 1st ed.; Routledge: Abingdon, UK, 2021.

4. Taylor, S.; Kiley, M.; Humphrey, R. A Handbook for Doctoral Supervisors, 2nd ed.; Routledge: Abingdon, UK, 2017.

5. Bogle, I. 100 Years of the PhD in the UK. In Proceedings of the Vitae Researcher Development International Conference, Birmingham, UK, 11–12 September 2018.

6. Gunnarsson, R.; Jonasson, G.; Billhult, A. The experience of disagreement between students and supervisors in PhD education: A qualitative study. BMC Med. Educ. 2013, 13, 134.

7. Motshoane, P.; McKenna, S. Crossing the border from candidate to supervisor: The need for appropriate development. Teach. High. Educ. 2021, 26, 387–403.

8. Huet, I.; Casanova, D. Exploring the professional development of doctoral supervisors through workplace learning: A literature review. High. Educ. Res. Dev. 2020, 41, 774–788.

9. Cantor, G. The loneliness of the long-distance (PhD) researcher. Psychodyn. Pract. 2020, 26, 56–67.

10. Kumar, S.; Kumar, V.; Taylor, S. A Guide to Online Supervision; UK Council for Graduate Education: Litchfield, UK, 2020.

11. Pearson, M.; Kayrooz, C. Enabling critical reflection on research supervisory practice. Int. J. Acad. Dev. 2004, 9, 99–116.