



UNIVERSITY of OULU
OULUN YLIOPISTO

DEVELOPING RESEARCH BASED PRACTICES OF DOCTORAL SUPERVISION IN THE UNIOGS -GRADUATE SCHOOL

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DOCTORAL EDUCATION IN CHANGE

- Research and researchers are viewed as critical to social and economic competitiveness and societal health (e.g., UK Council for Science and Technology, 2007; EC, 2014).
- Researcher education, principally through doctoral education, is one of the primary functions of the research intensive universities.
- It has undergone a sea change (e.g., Andras et al. 2015; Kehm, 2006; OECD, 2010; 2014; Department for Education and Skills, 2003):
 - **massification** of doctoral education,
 - **professionalization** of doctoral education and careers,
 - and the development of various **quality assurance systems**.
- The decision making concerning doctoral education, is primarily driven by (science)policy trends, the best practices, and personal experiences.



RESEARCH BASED TEACHING IN DOCTORAL EDUCATION?

- Along with other research intensive European Universities, University of Oulu is committed to research based teaching.
- This means that in researcher education...
 - What is taught
 - Teaching should be inquiry based
 - How is taught
 - What is developed, and
 - How the development work is carried out, should be research based.
- We need solid research on doctoral education, and use this knowledge to inform our decision making concerning the DE



WHAT WE DID?

- Launched a pilot on a pilot of research based development system on doctoral education, at University of Oulu Graduate School (abbreviation UniOGS).
- The system aims to contribute research-based evidence pertaining to the development of doctoral education in UniOGS graduate school
- The pilot study is based on national and international research projects on doctoral education (see Pyhältö et al., 2006; 2011; 2013; 2014; 2015).
 - Instruments used for data collection have been developed since 2006->, and validated in several contexts.
 - Data was collected from all the doctoral students of UniOGS



WHY WE LAUNCHED THE PROJECT?

- The benefits of developing the research based system...
 - Enables systematic and sustainable long term development of doctoral education at the University of Oulu
 - Provides diagnostic information about problems and strengths of the doctoral education in UniOGS.
 - Provides solid grounding for developing interventions to develop DE
 - Longitudinal design enables studying effectiveness of the interventions.
 - Promote the quality of research and researchers
 - Produces background materials for international evaluations and audits



THE CONTEXT: FINNISH DOCTORAL EDUCATION

- Research focus, there is no extensive course work included in the degree.
- Dissertation either monograph or article based dissertation (3-4 articles published in peer reviewed journals) + summary
 - Latter one more dominant
- No tuition fees for the students.
- Typically funded by personal grants, project funding, doctoral student position funded by the university or work outside the university.
- University of Oulu Graduate School, (abbreviation UniOGS), is a university-wide graduate school
- Consists of three Doctoral Training Committees in the fields of *Human Sciences, Technology and Natural Sciences, and Health and Biosciences.*



AIM

- The pilot aimed at contribute to the development of doctoral education at the University of Oulu. We wanted to know how we are doing in UniOGS in terms of both quality and the quacity of supervision?
 - Source of supervision
 - Frequency of supervision
 - Quality of supervision
 - Possible differences between the men/women; Finnish/International students; full-time/part time students etc.



DOCTORAL EXPERIENCE -SURVEY

The data were collected by e-mail through the online surveys in April 2015.

The doctoral experience -survey consists questions on eight themes:

- Interest
- Critical incidents
- **Supervision**
- Researcher community, including international collaboration.
- Engagement
- Well-being
- Career orientation
- Development of doctoral education & course work
- Background questions



EXAMPLE 1/4: SOURCE OF SUPERVISION

- The majority of doctoral students (56%) had two or more supervisors.
- No significant differences between full-time and part-time doctoral students and between Finnish and foreign doctoral students.
- Source of supervision was not related to satisfaction to doctoral studies, attrition intentions or prolongation of doctoral studies.



EXAMPLE 2/4: FREQUENT SUPERVISION IS AN ASSET

- Majority of doctoral students (66%) received supervision at least once a month. Frequent supervision was related to..
 - Not considering dropping out
 - Shorter studying time
 - Satisfaction with supervision
 - Satisfaction with doctoral studies
 - Not prolonged studies
- Students who received frequent supervision more typically
 - Worked in the research group than alone.
 - Did article based doctoral thesis.
 - Were full-time students.
- There were some differences between the Faculties in the frequency of supervision.
- No differences between male and females or native versus international doctoral students.



EXAMPLE 3/4: SUPERVISORY AND RESEARCHER SUPPORT MATTERS

- High levels of support was related to related
 - experiencing engagement in doctoral research,
 - satisfaction with doctoral studies and supervision,
 - and lower levels of experienced burnout.
 - not considering dropping out from their studies.
- Student who received high levels of support typically
 - worked in the research group
 - conducted article based thesis



EXAMPLE 4/4: GOOD SUPERVISION ACCORDING TO THE DOCTORAL STUDENTS

- **Basic prerequisites 37%**
 - supervisory commitment, frequent meetings and being available
- **Informational support 33%**
 - giving practical help and advice concerning the research topic and research methods, as well as planning the research and reporting on it.
- **Emotional support 25%**
 - encouragement, constructive feedback and promoting student active agency.
- **Instrumental support 5%**
 - providing research facilities or writing recommendations



TAKE HOME MESSAGE: SUPERVISION

- Both the quality and the quantity of supervision were central determinants of doctoral studies.
- The frequent supervision was related to shorter time spent on studies, satisfaction with supervision, satisfaction with doctoral studies, not having attrition intentions, and less likely to be prolonged with doctoral studies.
- Majority of doctoral students (66%) received supervision at least once a month.
- High quality supervisory support was related to experiencing engagement in doctoral research, satisfaction with doctoral studies, reduced risk of burnout and not considering attrition, among the doctoral students.
- The students emphasized, especially basic prerequisites of supervision as well as informational and emotional support as central characteristic of high quality supervision.



WHAT NEXT?

- Establishing the system as part of the practices of UniOGs
- Extending the data collection

Data	T1	T2	T3	T4
Doctoral students	I		II	
Post docs		I		
Supervisors			I	

- National piloting, including all the Universities in Finland.
- Utilizing the results for developing doctoral education in UniOGS
 - Dissemination of results, e.g. organizing disciplinary workshops
 - Establishing training for the supervisors
 - Workshops for the doctoral students
 - Engaging in both national and international comparisons



THANK YOU!

You can read the report:

<http://jultika.oulu.fi/Record/isbn978-952-62-1084-1>

