University of Jyväskylä Research Mapping Report
December 2019

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The aim of this report is to provide an overview of the current research, research governance and research circulation practices in the Departments of Education and Teacher Education at JYU to support comparison with other project partners and to form the basis for the local strategy or action plan.

The sources of information for this report include responses from Faculty staff, PhD and undergraduate students, the 2019 Bulletin from The Research Development Group (TUKE) of the Faculty of Education and Psychology, the activities of the Department of Teacher Education Research Action Group (TUTO), collaboration with the Dept of Teacher Ed and practice school representatives for the development of research collaboration, departmental responses to the development of the JYU research strategy 2019-2030 as well as information published on the JYU webpages and strategy documents from previous years. Satu Perälä-Littunen and Pia Krimark were key collaborators in the compilation of this report.

1. General introduction: Institutional details

Name of institution: University of Jyväskylä
Name of faculty: Faculty of Education and Psychology
Name of departments: Departments of Teacher Education and Education
Contact person, position, email: Josephine Moate, Senior lecturer, josephine.moate@jyu.fi
Number of staff involved in mapping exercise: 13 Faculty, 9 PhD students
Number of research-active staff: approximately 133 research active staff, although the 62 university teachers of the departments should also be involved in research according to the rector
Number of PhD/master students in departments overall: on an annual basis the aim of the education departments is to produce 255 Master's graduates (278 in 2019 to date), the aim for the completion of doctorates is 22 (28 in 2018, 8 in 2019), approx. 20 doctoral students employed and funded by the university.
Number of PhD/master students involved in mapping exercise[1]: 9 PhD respondents to questionnaire, 29 undergraduate student responses
Current or completed (within 3 years) externally funded research and/or development projects[2]: 56 in the Department of Teacher Education, 54 in the Department of Education, 5 Faculty projects related to education.

2. Research governance at JYU: an overview

JYU has recently initiated the active development of the overall research strategy for the university, led by the Rector of the university. As the JYU strategy is developed, so individual Faculties and then departments should develop research strategies in line with the overall strategy and pertinent to the research expertise and interests of the Faculties/Departments. Special interests are managed by the research development chief for the university, the vice deans responsible for research in the respective Faculties and the vice departmental heads for research. The University Policy outlines the mission, vision and values and five development programmes to be implemented on the basis of vision. The five development programmes are: *i. Education development programme, ii. World-class research environment and support for research, iii. University community that promotes skills, creativity and wellbeing, iv.Attractive campus, v. Digital programme.* The University's core fields connected with the research strategy are: i. *Learning, teaching and interaction; ii. Basic natural phenomena and mathematical thinking; iii. Sustainable business and economics; iv. Language, culture and society; v. Physical activity, health and wellbeing; vi. Information technology and the human in the knowledge society.*

In the Faculty of Education and Psychology TUKE is the Research Development Group of the Faculty led by Vice Dean Paavo Leppänen. TUKE addresses research and PhD training from a Faculty perspective, as well as

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[1] To avoid overload, master students should only be involved if they are working in specific, ongoing, departmental projects.

[2] This section should include Erasmus + and Horizon 2020 coordination and support actions, and similar projects not directly classified as 'research'.

development tasks such as the use of SOME for information sharing. The Doctoral School of the Faculty consists of two doctoral programmes: The Doctoral Programme in Education (KASTO) and the Doctoral Programme in Psychology (PSYTO). In the Dept of Teacher Education, the research working group TUTO is responsible for overseeing the development of research, the research strategy, e.g. staff involvement, Master's thesis guidelines and evaluation criteria with an equivalent group in the Dept. of Education.

Key partners for the Faculty of Education and Psychology are the university practice school and the Jyvsäkylä Parents' Forum. Connections with key stakeholders are maintained with external representatives (2) sitting on the Faculty Council, including one from the City of Jyväskylä. Faculty cooperation with the Jyväskylä Parental Forum involves about 4 meetings a semester with board members from the Parental Forum (2-4), Faculty members (1-2) and people from the city administration (2-3). The Jyväskylä Parental Forum is a member of the Finnish Parents' League and suggests ideas for research, including masters' theses. The JKL Parental Forum also organizes events such as International parents' evening (21st Nov 2018, SuperPark evening), a play on bullying followed by small group discussions.

Research collaboration between the university practice school and the Faculty have been strengthened with the introduction of regular 'Knowledge markets' for practice school and faculty staff based on suggestions from the school and Dept of Teacher Ed. The aim is to find joint interests and to conduct research and development together. This collaboration began in May 2018. Knowledge market themes have included feedback, evaluation strategies/grading, integration across the curriculum. The practice school also have regular book projects with small groups publishing research, teachers with researchers, every other year. The aim is to get these activities to be an established feature of the Dept of Teacher Ed annual timetable and to ensure that research results feed into practice. The practice school is also required to demonstrate that they are a research-based school, not only a teacher training school. This collaboration should also support collaboration with other educational stakeholders.

In addition to collaborating with educational stakeholders, the Faculty collaborates with the Kokkola university centre Chydenius, the Finnish Institute of Educational Research, the Open University, the university of applied sciences JAMK, the vocational college, the EduFutura –network and the Finnish music campus. As well as the Niilo Mäki Institute, the Central Finland healthcare (sairaanhoitopiiri), CampusFi, Keski-Suomen social cooperative (sosiaalialan osaamiskeskus) (Koske), family clinics, school and early education administrations.

According to the Faculty webpages, a number of Faculty research groups are part of international networks, actively involved in applying for research funding and publishing international articles. The Faculty has a wide range of research, training and development collaborations with schools in the locality, daycares, different health and psychology services. Master's thesis studies are often integrated with these activities and partnerships. An important part of these collaborations are practical interventions that support the development of education and learning through trials and interventions.

Research is currently evaluated by internal and external audits, most recently in 2018. The JYU ethics committee is also a key participant in the development of research activities and the university at all levels is invested in developing a rich public profile that engages with society and has impact in the surrounding community and further afield.

Whilst the Department of Teacher Education prepares class & subject teachers, the Department of Education includes units in Special Education, Adult Education, Early Childhood Education and Educational Leadership as well as providing studies and research in family studies and working life. These departments employ around 250 staff with approximately 20 doctoral students. The total of students in the Doctoral Programme in Education is around180. Most of the students are not funded by the university. The future prioritized areas of research strength of the whole Faculty (both educational departments and the dept of Psychology) are presently being formed. The previously prioritized areas of research strength include: *1. Processes of learning, teaching and guidance, 2. Professional identities, career paths and competence in a changing work life, 3. Well-being, participation and contexts of growth of children and young people, 4. Special topics of learning and participation, and 5. Education of the future and societal change.*

Measures taken to develop research since 2010 include internal and external research evaluations, reports from staff on their research activities and recording publications/visits/funding in a centralised system, the requirement to align with areas of research strength and the strategic vision of JYU, staff recruitment and doctoral applicants aligned with research areas, targeted internal as well as external funding. In the 2010 strategy document the circulation of research with regard to sharing research with key stakeholders (schools, local communities, policy

makers) was specifically mentioned. Since this time, however, with the introduction of the national Publication Forum which lists target journals for Finnish academics the focus has been on publication in international peer-reviewed journals. Publications in these journals have financial benefits for Departments, as well as significant implications for University, Faculty, Departmental and individual evaluations.

The 2018 research evaluation report identified a number of areas for development. 1. **Internationalisation** by recruiting visiting associate/full professors to the faculty, increased mobility and international research environment. 2. **Research collaboration and leadership**: by improving leadership to support research collaboration and team-building to increase critical mass, focusing on and interlinking research on central themes. 3. **The position of young academics**: by supporting the doctoral students' and young academics' career prospects and opportunities for participation. 4. **Support for acquiring external funding**: by supporting external national and international, especially EU, funding. And 5. **Open science and infrastructure**: by increasing open publishing and open science, developing novel technologies and infrastructure to facilitate internationally high-impact research.

Current initiatives to strength the research strategy of the Faculty include Faculty and departmental working groups purposefully working on the development of the research strategy, e.g. the rector's mandate that all staff are involved in research new strategies. The research-based curricula of the departments are currently being renewed. Local news is available through the Ruusupuiston kärkiuutiset – 1000 word articles on recent research, projects, events which can be ordered and freely available online. The employment of a Faculty PR/Communications Officer and workshops available to staff to develop communication skills. The development of SOME strategy at departmental level with guidelines and tools for staff as well as the requirement to parallel publish research publications through the library services of the university.

3. Current researchers and their topics

The Departments of Teacher Education and Education have currently 55 funded, primarily research, ongoing projects connected with a wide range of educational issues. Current research topics include nanoscience education & enculturation, literacy development, learning difficulties, motivation, Finnish mothers' relationship with work and families, music pedagogy, technology-assisted pedagogy, teacher-student interactions, home-school collaboration, educational dialogues, eye-tracking, educational leadership, social-emotional development, argumentation, professional growth, innovations in language education and meaningful learning.

Doctoral studies should also align with the key research areas of the Faculty, as well as being informed by the interests and concerns of doctoral students. Current doctoral studies address environmental conditions for language development, factors enabling and constraining a socially constructed leadership process, supporting teachers' professional development through creative writing practices, Young women, expectations of work-family reconciliation and sustainable solutions, Computational thinking through graphical programming in primary school, Teachers' technological-pedagogical skills, technology use and acceptance; Enhancing teachers', teacher students and teacher educators' digipedagogical skills, The role of kindergarten teachers' stress and work engagement in the quality of teacher-child interactions, Teachers' attitudes and self-efficacy in implementing inclusive education, Teacher stress: coping & recovery strategies, well-being profiles and daily experiences, Teachers assessing and supporting students' reading and arithmetic skills in primary school. Although this is only a small sample of the approximately 180 doctoral students that belong to the Doctoral Programme in Education.

Approaches to research and research methodologies cover a wide range of qualitative and quantitative approaches across the Faculty. From conversation analysis to grounded research, classroom observations to eye-tracking, complexity theory to ethnography. Key words connected to research include reading development, spelling development, emergent literacy, health literacy, home learning environment, emotional well-being, school well-being, learning difficulties, longitudinal studies, structural equation models, maternal work, non-standard work hours, cross-national comparative research, work-family conflict, childcare, music education, music pedagogy, methods of music teaching, multilateral learning, professional identity, reflection, voice, science education, Inquiry-based teaching, scaffolding, guidance, computer-supported learning, classroom interaction, multiliteracies, pedagogy, interactions, social skills, motivation, leadership, education, process, dynamic, complexity, emergence, argumentation, dialogic teaching, teacher questioning, teacher roles, classroom discourse – although these examples are only a drop in the ocean considering the number of funded projects that are ongoing.

4. Report on the workshops

As part of the ReCiTe project a number of activities were undertaken to gather the views of Faculty stakeholders, and information was also gathered from ongoing activities that are part of JYU research strategy developmental activities. The data used in this section include responses from the Dept of Teacher Education staff (approx. 50) on the development of the research strategy, written responses from nine PhD students, 29 undergraduate students and 13 staff based on the questions presented in the ReCiTe workshop template. This section also includes the December 2019 Bulletin from the TUKE Faculty group reviewing the activities of the year and areas for further development.

This section begins with a SWOT analysis based on comments from the Department of Teacher Education when asked by the leadership of the Department to answer 3 key questions: *1. How are the strategic research objectives currently realized in the Dept of Teacher Education? 2. Identifying important objectives: what objectives at Dept of Teacher Education are important in the future? 3. What measures need to be undertake in order to implement the most important objectives at the Dept of Teacher Education? Concrete, practical suggestions*.

According to the Department of Teacher Education (approx. 50 participants) the **strengths** of the existing research strategy include:
- the availability of research instruments, such as research sabbatical/leave, support for writing funding and grant applications
- support for article writing from language center and library services
- multidisciplinary collaboration between Departments and is strong in the Dept of TEd
- the existing knowledge levels of the staff
- the improvement in support services in recent years
- research communication support and GDPR training is available

The **weaknesses** of the existing research strategy include:
- the lack of transparency in career development and recruitment
- no information available at Department level who has been recruited and the accepted doctoral students (twice a year) and their areas of research
- Slow administrative process
- the lack of a mentoring system for new researchers, implementation is erratic and dependent on the research group, focused mainly on doctoral students supervision
- the lack of administrative and financial (e.g. budgeting) support once the funds have been secured
- maintenance of several long-term longitudinal data sets is somewhat challenging due to the lack of a clear long-term funding plan

The **opportunities** of the existing research strategy include:

- increased mobility e.g. research visits
- developing clear career structure for academic staff/researcher and permanent positions
- Erasmus exchange also facilitates research visits, Fullbright visits, personal contacts. Contacts are coincidental, perhaps should be more systematic and structured taking into account the proximity of campus areas?
- New challenges such as open access and public image. Opportunities to further training, depends on your own activity.
- New innovations such as AI and data analytics are less known, depends largely on your own motivation to learn
- The attractiveness of education research should be promoted. Strengthen the positive attitudes and interest to research among students.
- Research and teaching should be able to do side by side, in turns and between.
- Research Career structure should be developed and increase transparency
- More research project management training needed

The **threats** of the existing research strategy include:

- Academic careers are not attractive. Too much uncertainty related to research careers. Research career does not attract doctoral students.
- lack of clear tenure track system
- JYU staff: Challenging to secure funding
- Recruiting international researchers is challenging as teaching is conducted in Finnish and long term position recruitments often include teaching
- It is challenging to recruit graduate students without funding.

A second activity undertaken at JYU was to send a short survey to students of the Dept of Teacher Education to gain a snapshot of their understanding of theory and practice. The findings suggest a range of interpretations of these key concepts and highlight the need to better share the purpose and nature of educational research with student teachers. The student responses provide the following descriptions:

'Theory' is:

- 16 out of 29 students understand theory to be formal knowledge that describes and explains what happens in the world.
- 13 out of 29 described theory as an authoritative form of knowledge to be applied
- 10 out of 29 described theory as reliable knowledge based on research
- 7 out of 29 described theory as an evolving body of knowledge that develops over time.

Practice in relation to education is:

- 17 out of 29 students described practice as the development of skills by the implementation of knowledge
- 7 out of 29 described practice as the enactment of theory to develop understanding
- 5 out of 29 described practice as teacher action in an educational setting

The relationship between the theory and practice of education is:

- 12 out of 29 students described the connection between theory and practice as steps in understanding, theory being the first step and practice a further step
- 11 out of 29 described practice as the enactment of theory (a one way relationship)
- 6 out of 29 described theory and practice as complementary partners benefitting from and contributing to each other

'Educational research' is:

- 9 out of 29 students described educational research as the investigation of practice, of what works and doesn't work
- 7 out of 29 described educational research as research connected with school or education
- 5 out of 29 described educational research as providing new knowledge
- 3 out of 29 described educational research as the recognized need to develop education in response to changing times
- 1 out of 29 described educational research as the creation of new data

Thirteen Faculty staff responded to a request to share their visions for their future development. These future visions often revolved around the hope of finding a good team to work with, the opportunity to develop one's own research area and team, the hope to be able to use the great data already gathered, to develop research profile further (with a docentship, wider skill set). The majority of responses revolved around the idea of having the time/opportunity/funding to be able to realise a vision, as well as sharing the findings with others.

For PhD students, their comments on the future suggested a lack of confidence in the university as a place for future employment. Of the nine PhD respondents, four directly remarked that their future likely lay outside of academia, even if they wanted to continue working as a researcher. Two PhD students expressed a desire to widen their repertoire as researchers, three of the PhD students expressed a desire to improve education on the basis of their research work, e.g. improving interaction between practitioners and researchers, as well as improving educational conditions.

In the responses from PhD students as well as the staff, it was striking how many publications they noted as a point of pride with regard to their work to date, although only one PhD student specifically mentioned engagement

with a wider range of stakeholders and newspaper articles. The final part of this section is the 2019 Bullet from the Research Development Group of the Faculty. This Bulletin outlines the activities and priorities of TUKE, the research development group of the Faculty of Education and Psychology. TUKE members include the dean and vice-deans of the Faculty responsible for pedagogical and research development, representatives from the doctoral schools of the Faculty, the departmental vice heads responsible for research, a couple of professors and departmental heads when necessary. This group is an important partner for the ReCiTe project.

BULLETIN 2019 (Satu Perälä-Littunen)
The Research Development Group (TUKE) of the Faculty of Education and Psychology
TUKE was established 21st February 2019 to combine research development and steering the doctoral school of the faculty. TUKE has had six meetings in 2019.
Tasks
Strategic development of research activities at the faculty level, including among other things the following: enhancing societal impact, research support activities as well as mapping the research culture and research groups in the faculty. One of the main tasks is to develop actions of improving the research environment in the faculty.
TUKE also acts as the steering board of the Doctoral School of the Faculty being responsible for the following preparation assignments:
o discussions and decision proposals on major definitions of policy (for example curriculum, the criteria for evaluation, structure of article-based dissertation)
o responding requests from JYUGS
o matters dealing with auditing of doctoral training and quality control
o proposing decisions on problematic situations (complaints, statements)
o principles of selection criteria of employment contracts of doctoral students and questions of justice (transparency).

A brief summary of matters discussed and dealt with by TUKE 2019

Research development:
□□□Planned the strategic development of the research in the faculty, including establishing strategic areas of strength, enhancing internal cooperation and following the establishment of research projects, based on the 2018 auditing report of research activities. Created a development plan consisting of five topics (below in brackets) for research in the faculty
□□□discussed and planned actions on the following topics:
    o Cooperation with FIER
    o Supporting internationalization (topic 1)
    o Research cooperation and research leadership (topic 2)
    o Supporting young researchers (topic 3)
    o Support for applications of external research funding (topic 4)
    o Open Science and webpages for internal use (Intra) (topic 5)
    o Strategic development of dissemination, visibility and impact of research

□□□Discussed establishing a doctoral programme in cognitive neuroscience
□□□Made plans for applying the Academy of Finland's Centres of Excellence (CoE) in 2020
□□□Was involved in the annual planning (TS) of the activities related to research in the faculty
□□□Explored parts of the Audit manual for higher education institutions 2019-2024 by the Finnish Education Evaluation Centre dealing with research.
□□□Discussed the forthcoming 2020 auditing of the University of Jyväskylä and answered a questionnaire dealing with the auditing.

Doctoral Education:

□□□Organized Dissertation Flow 1 and 2 events for doctoral students and supervisors
□□□Mapped the doctoral students' needs for seminars and possibilities of organizing new seminars
□□□Discussed the principles of granting a study right for a doctoral degree and decisions on funding doctoral research
□□□Discussed the integration of non-Finnish doctoral students into activities in research groups and the faculty
□□□Checked the numbers of finished doctoral degrees having in mind the quota of the faculty

□□□Started to draft a new curriculum for doctoral education (the present curriculum is active until 31st July 2020). The new curriculum needs to be approved by the faculty council by March 2020.

In 2020 research development will be continued and TUKE will organize an event for the researchers of the faculty. During the event shared focus will be on research strategy, actions improving the research environment in the faculty and bottom-up and top-down initiatives related to research in the faculty.

5. Report on the multiplier event

No multiplier event has been held to-date although in January 2020 recite can be part of a knowledge market with the teacher training school. There are also regular 'Ruusupuisto discusses' events in the Faculty – events when up-to-date issues in education are publicly discussed in relation to current research. These events have not as yet been included in ReCiTe, although this is a possibility in spring 2020 onwards.

6. How the topics and the results of the multiplier event link to co-creation, internationalisation and students with special needs

Research, teaching and societal impact have long been the heart of academic activity in teacher education in Finland, as well as in other disciplinary areas based at the university. Although these three issues are well-established aspects of university life, how to balance the demands of research and teaching within the Departments of Education and Teacher Education is as critical a question as ever – especially in the light of the new policy that requires all staff to be involved in research work. How this can be worked out in practice is a key area for development. Moreover, societal impact is recognized as increasingly important and not merely desirable or ideal. It is curious to note, however, that in many of the responses and documentation that have been used to compile this report *how to effectively communicate research with key stakeholders* rarely comes to the forefront of discussions. This is perhaps unsurprising given the insecurity of many academic positions for new as well as experienced researchers, but perhaps being able to more effectively communicate research would be one way of strengthening the provision of funding in education.

Another key strategy area that is under-development at JYU is internationalization at all levels of activity. Although this has not been addressed directly in this report, the recruitment of international staff as well as the involvement of international students and 'internationalisation at home' are opportunities for rethinking how research and research activities support collaboration and the circulation of research within and beyond the immediate community of the university. Students with special needs have not been a direct part of the JYU ReCiTe activities to date, although exchange students and international doctoral students did provide responses.

7. General conclusions

The ongoing research strategy work at JYU has been both an affordance and a hindrance for the ReCiTe activities at JYU. On the one hand the project is benefitting from ongoing discussions and initiatives, however the questions that ReCiTe wants to ask do not always align with the questions and requests from the university authorities. In an attempt to not overburden colleagues, sometimes key ReCiTe questions have been left unasked. Hopefully through this report and the identification of gaps in the research strategy development work will create opportunities for (even more) successfully embedding ReCiTe within the research strategy development activities of JYU. In January ReCiTe is now on the agenda of the TUKE Faculty research development group and it will be suggested that ReCiTe and TUKE cohost the autumn multiplier event on research governance.

Some other gaps and challenges that have been identified include how to go beyond discussions of SOME as a possible tool for sharing research to a well-managed environment for the circulation of research, the way in which the GDPR changes the research landscape, how to support the critical research literacy of future educators and

educational stakeholders, as well as find time and topics that support genuine collaboration. A significant number of PhD students that are part of the Faculty are also members of educational communities providing key links with educational stakeholders and direct feedback loops for research and practice. Although which students are full-time researchers or educators is difficult to track due to the number of short-term contracts and limited funding opportunities, PhD students could be better supported to act as critical links between the world of educational research and practice.

There is a curious contradiction between the number of articles cited as key outcomes from research work and the lack of comment in staff responses regarding communication with key educational stakeholders, such as the city of Jyväskylä. There is currently a significant push for researchers to publish in international peer review journals. At the same time channels for parallel publishing have also been developed, but so has the struggle to get published and to even have access to one's own publications. At regular intervals in the history of Finnish teacher education there have been efforts to share research with educational stakeholders, but no channels have been enduring (e.g. Teacher Researcher Network). Currently the RuusuKärki Uutiset is a regularly published account of ongoing research that can be ordered from the Faculty.

It appears, however, that collaborative networks are largely dependent on individual researchers, established relationships and initiatives, rather than a formalized activity. This has been advantages and disadvantages. It is perhaps also worth noting that teacher education is one of the few university-based disciplines that leads to a profession. This suggests that the channels for sharing research should in many ways be already established during teacher education.

In DECEMBER 2020 the key questions we are facing in JYU include:

What kind of research to make available?
How to 'popularise' research without 'popularising' research – danger of interpretations without critical limitations…
How to develop critical literacy of non-academic readers?
How to differentiate between different types of research?
How to avoid the extremes of 'this is the truth' and 'this is an opinion'?
How to organise academic departments so that we don't all become accountable for sharing all of the work we do without having the time to do our work…?
How to really develop research-based collaboration with local stakeholders, especially teaching practice school(s)?