JYU DISSERTATIONS 256

Melina Aarnikoivu

"The Best Drunk Decision of My Life"

A Nexus Analysis of Doctoral Education

UNIVERSITY OF JYVÄSKYLÄ
FACULTY OF HUMANITIES AND
SOCIAL SCIENCES

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ABSTRACT

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This dissertation explores doctoral education as a form of social action. The qualitative mode of inquiry guiding both the theoretical and methodological choices of this work is *nexus analysis*. In the context of this work, doctoral education is a *nexus* where different social actors (such as doctoral researchers, supervisors, and funding agencies), places (such as seminar rooms, universities, conference venues), and discourses (such as the one of internationalisation) come together. For this reason, they should also be examined together, rather than as individual facets.

To conduct the analysis, I generated data by doing insider ethnography in two distinct settings over the course of eighteen months: CERN (the European Organization for Nuclear Research, Switzerland/France) and CALS (the Centre for Applied Language Studies, University of Jyväskylä, Finland). The data consists of recorded and transcribed interviews, fieldwork notes and photographs, survey data, documents, and reports. In both settings, I followed three practical stages of nexus analysis: *engaging*, *navigating*, and finally *changing* the nexus of practice.

Based on the comprehensive analysis process, I argue that nexus analysis offers a promising holistic, inductive mode of inquiry to study doctoral education from a perspective that is currently underrepresented in research on doctoral education. It enables the researcher to become an activist with powerful analytical tools, which can be used to facilitate change in the studied nexus of practice. Nexus analysis also allows individual doctoral researchers to approach doctoral education in a bottom-up manner, rather than a top-down one, challenging the existing power relationships, gatekeeping, and decision-making practices. Therefore, I suggest that the social actors involved in doctoral education ought to critically assess whether the decisions regarding doctoral education and specific doctoral practices are made by those who have experience and/or research-based knowledge on doctoral education, instead of those who have neither. In this way, challenges of contemporary doctoral education could be addressed more effectively.

Keywords: doctoral education, nexus analysis, social action

SUOMENKIELINEN ABSTRAKTI

Tämä väitöstutkimus tarkastelee tohtorikoulutusta sosiaalisena toimintana. Sen kvalitatiivinen lähestymistapa, jonka perusteella tutkimuksen teoreettiset ja metodologiset valinnat on tehty, on *neksusanalyysi*. Tässä tutkimuksessa tohtorikoulutus on siis *neksus*, jossa erilaiset sosiaaliset toimijat (kuten väitöskirjatutkijat, -ohjaajat ja rahoittajat), paikat (kuten seminaarihuoneet, yliopistot, konferenssitilat) ja diskurssit (kuten/esimerkiksi kansainvälistymiseen liittyen) kietoutuvat yhteen. Tästä syystä niitä tulisi myös tarkastella yhdessä eikä erillisinä siiloina.

Kolmiportaisen analyysin toteuttamiseksi keräsin aineistoa tekemällä niin sanottua sisäpiirietnografiaa puolentoista vuoden ajan kahdessa eri paikassa: CERNissä (Euroopan hiukkasfysiikan tutkimuslaitos) sekä Jyväskylän yliopiston Soveltavan kielentutkimuksen keskuksessa (Solki). Aineisto koostui nauhoitetuista ja litteroiduista haastatteluista, kenttähavainnoista ja valokuvista, kyselytutkimuksesta, asiakirjoista ja raporteista. Sekä CERNissä että SOLKIssa seurasin neksusanalyysin kolmea käytännön vaihetta: tutkittavaan neksukseen kiinnittymistä (*engaging*), siinä navigoimista (*navigating*) ja sen muuttamista (*changing*).

Analyysiprosessin perusteella neksusanalyysi näyttäisi tarjoavan lupaavan holistisen, induktiivisen tutkimusmenetelmän tohtorikoulutuksen tutkimukseen sellaisesta näkökulmasta, jota ei tähänastisessa tutkimuskirjallisuudessa ole juurikaan huomioitu. Se mahdollistaa aktiivisen tutkijan roolin ja tarjoaa tehokkaat analyyttiset työkalut, joiden avulla tutkija pystyy tuomaan muutosta tutkittuun ilmiöön. Lisäksi neksusanalyysin avulla yksittäinen väitöskirjatutkija pystyy lähestymään tohtorikoulutusta alhaalta ylöspäin, mikä haastaa tohtorikoulutuksen olemassa olevat voimasuhteet, portinvartijat sekä siihen liittyvän päätöksenteon. Tulosten perusteella ehdotan, että tohtorikoulutuksen sosiaaliset toimijat arvioisivat kriittisesti, ketkä tällä hetkellä tekevät tohtorikoulutusta koskevia päätöksiä: ne, joilla on kokemus- ja/tai tutkimusperustaista tietoa tohtorikoulutuksesta ja sen erilaisista käytänteistä vai ne, joilla ei ole kumpaakaan. Näin tohtorikoulutuksen haasteita voitaisi ratkoa entistä tehokkaammin.

Avainsanat: tohtorikoulutus, neksusanalyysi, sosiaalinen toiminta

ABSTRACT PÅ SVENSKA

Den här avhandlingen fokuserar på forskarutbildning som en sorts social handling. Den kvalitativa undersökningsmetod som väglett såväl de teoretiska som metodologiska valen i arbetet är *nexusanalys*. I avhandlingen utgör forskarutbildning en nexus, där olika sociala aktörer (som doktorander, handledare och forskningsfinansiärer), platser (som seminarierum, universitet, konferenser) och diskurser (som internationaliseringsdiskursen) möts. Av den anledningen behöver dessa också undersökas sammanhållet, snarare än som åtskilda aspekter.

För att genomföra analysen samlade jag in data under arton månader genom insider-etnografi i två skilda miljöer: CERN (Europeiska organisationen för kärnforskning) och CALS (Centralen för Tillämpad Språkforskning, Jyväskylä universitet, Finland). Datamaterialet består av inspelade och transkriberade intervjuer, fältanteckningar och fotografier, enkätsvar, dokument och rapporter. I båda miljöerna tillämpade jag tre steg för nexusanalys: *bekanta sig med (engaging), utreda (navigating)* och slutligen *förändra (changing)* nexus-praktiken.

Baserat på den omfattande analysprocessen argumenterar jag för att nexusanalys erbjuder en lovande holistisk induktiv undersökningsmetod för att studera forskarutbildning ur ett perspektiv som för närvarande är underrepresenterat i forskning kring forskarutbildning. Den möjliggör för forskaren att bli aktivist med kraftfulla analytiska verktyg som kan användas för att främja förändring i den undersökta nexus-praktiken. Nexusanalys tillåter även enskilda doktorander att närma sig forskarutbildning ur ett underifrån-perspektiv, snarare än uppifrån, och därmed utmana rådande maktrelationer, grindvakter och beslutsfattande praktiker. Därför föreslår jag att sociala aktörer, som är involverade i forskarutbildning, kritiskt bör granska huruvida beslut som rör forskarutbildning och specifika doktorandpraktiker görs av dem som har erfarenhet och/eller forskningsbaserad kunskap om forskarutbildning, istället för av dem som har varken eller. På så vis kan utmaningar för nutida forskarutbildning mötas mer effektivt.

Nyckelord: forskarutbildning, nexusanalys, social handling

ABSTRACT (YN GYMRAEG)

Mae'r traethawd hir hwn yn canolbwyntio ar addysg ddoethurol fel math o weithredu cymdeithasol. Y dull ansoddol o ymholi sy'n llywio dewisiadau damcaniaethol a methodolegol y gwaith hwn yw *dadansoddiad cysylltiol*. Yng nghyd-destun y gwaith hwn, mae addysg ddoethurol yn *gyswllt* lle mae gwahanol actorion cymdeithasol (megis ymchwilwyr doethuriaeth, goruchwylwyr, ac asiantaethau cyllido), lleoedd (fel ystafelloedd seminar, prifysgolion, lleoliadau cynadledda), a thrafodaethau (fel yr un o ryngwladoli) yn dod ynghyd. Am y rheswm hwn, dylid eu harchwilio gyda'i gilydd hefyd, yn hytrach nag fel agweddau unigol.

I gynnal y dadansoddiad, cynhyrchais ddata trwy wneud ethnograffeg fewnol mewn dau leoliad gwahanol dros ddeunaw mis: CERN (y Sefydliad Ewropeaidd ar gyfer Ymchwil Niwclear) a CALS (y Ganolfan Astudiaethau Iaith Gymhwysol, Prifysgol Jyväskylä, y Ffindir). Mae'r data'n cynnwys cyfweliadau wedi'u recordio a'u trawsgrifio, nodiadau gwaith maes a ffotograffau, data arolwg, dogfennau ac adroddiadau. Yn y ddau leoliad, dilynais dri cham ymarferol o ddadansoddi cysylltiol: *ymgysylltu*, *llywio*, ac yn olaf *newid* y cyswllt ymarfer.

Yn seiliedig ar y broses ddadansoddi gynhwysfawr, dadleuaf fod dadansoddiad cysylltiol yn cynnig dull ymholi cyfannol, anwythol addawol i astudio addysg ddoethurol o safbwynt sydd heb gynrychiolaeth ddigonol ar hyn o bryd mewn ymchwil ar addysg ddoethurol. Mae'n galluogi'r ymchwilydd i ddod yn weithredydd gydag offer dadansoddol pwerus y gellir eu defnyddio i hwyluso newid yn y cyswllt ymarfer a astudiwyd. Mae dadansoddiad cysylltiol hefyd yn caniatáu i ymchwilwyr doethuriaeth unigol fynd at addysg ddoethurol mewn dull o'r gwaelod i fyny, yn hytrach nag un o'r brig i lawr, gan herio'r perthnasau pŵer presennol, rheoli mynediad, ac arferion gwneud penderfyniadau. Felly, awgrymaf y dylai'r actorion cymdeithasol sy'n ymwneud ag addysg ddoethurol asesu'n feirniadol a yw'r penderfyniadau ynghylch addysg ddoethurol ac arferion doethuriaeth penodol yn cael eu gwneud gan y rhai sydd â phrofiad a/neu wybodaeth yn seiliedig ar ymchwil ar addysg ddoethurol, yn lle'r rhai nad oes ganddynt y naill na'r llall. Yn y modd hwn, gellid mynd i'r afael â heriau addysg ddoethurol gyfoes yn fwy effeithiol.

Geiriau allweddol: addysg ddoethurol, dadansoddi cysylltiol, gweithredu cymdeithasol

APSTRAKT NA SRPSKOM

Predmet ove disertacije je doktorsko obrazovanje kao oblik društvene akcije. Teorijski i metodološki pristup ovog rada je kvalitativni i u njegovom središtu je *neksus* analiza. U kontekstu ovog rada, doktorsko obrazovanje predstavlja vezu, odnosno neksus, u kojoj se sreću društveni akteri (kao što su doktorski istraživači, mentori i agencije za finansiranje), mesta (kao što su prostorije za seminare, univerziteti, mesta na kojima se održavaju konferencije) i diskursi (kao što je, na primer, internacionalizacija). Imajući datu povezanost u vidu, ove elemente bi trebalo i posmatrati zajedno.

Kako bih primenila neksus analizu na doktorsko obrazovanje, podatke sam prikupila putem etnografskog posmatranja sa učešćem u dve organizacije, u ukupnom trajanju od osamnaest meseci: CERN (Evropska organizacija za nuklearno istraživanje) i CALS (Centar za studije primenjenog jezika, Univerzitet Jivaskila, Finska). Prikupljeni podaci uključuju snimljene i transkribovane intervjue, terenske beleške i fotografije, podatke prikupljene putem anketa, dokumenta i izveštaje. U obe organizacije pratila sam tri praktične faze koje obuhvata neksus analiza: *angažovanje*, *navigaciju* i na kraju *promenu* neksusa prakse.

Na osnovu opsežne analize, može se tvrditi da neksus analiza nudi obećavajući sveobuhvatni i induktivni način za proučavanje doktorskog obrazovanja iz perspektive koja je nedovoljno zastupljena dosadašnjim istraživanjima. Neksus analiza omogućava istraživaču da postane aktivista opremljen snažnim analitičkim alatima koji se mogu koristiti za sprovođenje promena u proučavanom neksusu prakse. Neksus analiza takođe omogućava pojedinim doktorskim istraživačima da pristupe doktorskom obrazovanju „odozdo na gore“, umesto „odozgo na dole“, izazivajući time postojeće odnose moći, „čuvare ulaza“ (poput članova komisija) i prakse donošenja odluka. Imajući ovaj aspekat u vidu, predlažem da društveni akteri u doktorskom obrazovanju kritički procenjuju da li odluke o doktorskom obrazovanju i posebnim doktorskim praksama donose oni koji imaju iskustva i/ili znanje zasnovano na istraživanju, umesto onih koji nemaju ni jedno ni drugo. Na ovaj način bi se efektivnije moglo izaći u susret izazovima savremenog doktorskog obrazovanja.

Ključne reči: doktorsko obrazovanje, neksus analiza, društvena akcija

АПСТРАКТ НА СРПСКОМ

Предмет ове дисертације је докторско образовање као облик друштвене акције. Теоријски и методолошки приступ овог рада је квалитативни и у његовом средишту је нексус анализа. У контексту овог рада, докторско образовање представља везу, односно нексус, у којој се срећу друштвени актери (као што су докторски истраживачи, ментори и агенције за финансирање), места (као што су просторије за семинаре, универзитети, места на којима се одржавају конференције) и дискурси (као што је, на пример, интернационализација). Имајући дату повезаност у виду, ове елементе би требало и посматрати заједно.

Како бих применила нексус анализу на докторско образовање, податке сам прикупила путем етнографског посматрања са учешћем у две организације, у укупном трајању од осамнаест месеци. Организације у питању су Европска организација за нуклеарно истраживање (CERN) и Центар за студије примењеног језика, Универзитет Јиваскила, Финска (CALS). Прикупљени подаци укључују снимљене и транскрибоване интервјуе, теренске белешке и фотографије, податке прикупљене путем анкета, документа и извештаје. У обе организације пратила сам три практичне фазе које обухвата нексус анализа: *ангажовање*, *навигацију* и на крају *промену* нексуса праксе.

На основу опсежне анализе, може се тврдити да нексус анализа нуди обећавајући свеобухватни и индуктивни начин за проучавање докторског образовања из перспективе која је недовољно заступљена досадашњим истраживањима. Нексус анализа омогућава истраживачу да постане активиста опремљен снажним аналитичким алатима који се могу користити за спровођење промена у проучаваном нексусу праксе. Нексус анализа такође омогућава појединим докторским истраживачима да приступе докторском образовању „одоздо на горе“, уместо „одозго на доле“, изазивајући тиме постојеће односе моћи, „чуваре улаза“ (попут чланова комисија) и праксе доношења одлука. Имајући овај аспекат у виду, предлажем да друштвени актери у докторском образовању критички процењују да ли одлуке о докторском образовању и посебним докторским праксама доносе они који имају искуства и/или знање засновано на истраживању, уместо оних који немају ни једно ни друго. На овај начин би се ефективније могло изаћи у сусрет изазовима савременог докторског образовања.

Кључне речи: докторско образовање, нексус анализа, друштвена акција

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PREFACE

> The content of a book holds the power of education and it is with this power that we can shape our future and change lives.

These words by the Nobel Peace Prize winner Malala Yousafzai make it effortless for anyone to understand why education is so crucially important. Educating people has an enormous potential to offer solutions to many problems and challenges faced by our contemporary society. For discoveries, ideas, breakthroughs, and inventions seldom happen without an access to education. While some rare individuals might come up with a great idea without ever reading a book from cover to cover, great achievements are usually a result of many years of studying and hard work.

Access to education, however, is not enough. To provide answers to problems there first needs to be good questions, and no good questions can be asked without *curiosity*. Doctoral education, the empirical context of this dissertation, represents the stage of education which, I would argue, only the most curious (and privileged) of us end up choosing. Not necessarily the most talented ones, or even the most hard-working ones, because one can find talented and hard-working people in most corners of working life. But doing research would be very difficult, or at least quite unrewarding, without being at least slightly curious towards the world. Whether one wants to know more about the origin of the universe, about how the human mind works, about the causes and consequences of climate change, or perhaps about representation of Burmese metal music in the western media[1], there has to be at least some curiosity involved.

The curious nature of doctoral researchers was also probably why I was extremely fascinated to talk to the participants of the present study. When I asked what made them to choose doctoral studies over going and working in industry, many of them replied that instead of making money, they *wanted to know more*, to *develop their own ideas.* In other words, they were driven by their curiosity towards understanding the world a bit better. In fact, one of the participants was so happy about their decision to apply for the CERN doctoral programme that they described it as "the best drunk decision" of their life. This description perfectly illustrates that, for some, the decision to pursue a doctorate might be swift but, in the end, followed by years of enjoyment—a discourse which is sadly sometimes overshadowed by its counterpart; the one which depicts doctoral studies mostly as pain and suffering.

Curiosity is also most likely what has always made me enjoy studying, be somewhat successful at every stage of the Finnish education system, and finally choose to do a PhD—on *doing a PhD*. Deciding to do doctoral studies, however,

[1] Maclachlan, H. 2016. (Mis)representation of Burmese metal music in the western media. *Metal Music Studies*, *2*(3), 395-404.

is much more than choosing to "study more". This is because doctoral students—or doctoral *researchers*, as I call them in the current study—are not *students* in the traditional sense of the word. Not once during my doctoral studies have I told my friends or family that "this weekend I will be busy with my studies". Instead, I have been busy with *work.* This illustrates the nature of doing a PhD: It is a transition phase of learning and practicing doing the work of an independent researcher. It is gradual researcher growth, supported by both peers and seniors in the surrounding academic community—those who are also still *learning* every day, although they might have a doctorate and potentially decades of work experience.

After three years since completing my master's degree, encouraged by one of my supervisors, I decided to embark on a road that I had already seen some of my friends and colleagues choose. I had seen them navigate "the doctoral path" with more or less challenges, and none of them with ease. While doing doctoral studies might be many things, and mean different things to different people, I can safely argue that it is usually not *easy*. If doing doctoral studies were easy and doctoral education unproblematic, most studies on doctoral education, doctoral researchers, and their challenges would probably not exist: Why study supervisory practices if all doctoral researchers had great supervisors? Why study doctoral researchers' mental health if no doctoral researchers had mental health issues? Regrettably, not all supervisors are great, and not all doctoral researchers are free from mental health problems. These are only some of the reasons why increased understanding of doctoral education is increasingly needed.

Another regrettable fact is that not everyone can still access even basic education, let alone doctoral education, which is accessible only to a tiny fragment of the world's population. In this sense, both my participants and I are quite lucky. However, addressing the issues that can be found on the highest levels of education might also reveal something of interest on power relations and other dynamics which are also affecting all levels of education, as well as our society as a whole. Currently, as scientific work and thinking are challenged by spreading disinformation, populism, discourses of *post-truth era*, and rising far-right ideas across the globe, addressing these issues is more important than ever before.

This preface marks the beginning of what I would call *a story in the form of a dissertation*. I use this wording because although, as I was told, academic texts should never be detective stories—only revealing the murderer at the end—they should still be *stories.* A good story captures the reader and keeps them reading until the final word. After finishing, the reader might not agree with everything that was being written and done but at least they are left with a feeling that the author *knew* what they were writing and doing; that they had a set of decisions to make and they were carefully choosing the best options. And this is what I hope to have accomplished with my work.

ACKNOWLEDGEMENTS

Writing and finalising this dissertation has been a very joyous experience. I believe this was largely because of my highly positive, five-year doctoral journey that is now approaching its end. These five years wouldn't have been so fantastic without all the support and encouragement I've received before and during the journey. For this reason, quite a large number of thank-you's are in place.

When talking to prospective or new doctoral researchers, I try to emphasise the importance of having good supervisors, "someone you can always have a beer or two with". I was lucky enough to have two such *super supervisors*, who formed somewhat of a supervisory dream team: Taina Saarinen and David Hoffman—one million times *thank you* for all the support and encouragement you have provided from the very first moment I decided to do doctoral studies to these final stages when everything is almost wrapped up. Taina, I'd especially like to thank you for your extremely concise, quick, and practical pieces of advice, which often helped me in times of chaos and uncertainty. Dave, I'd like to thank you for doing the very opposite—advising me take my time, think about different sides of a problem, and see the "bigger picture" when I was struggling to do it myself. Your encouraging words for whatever I've decided to do has been invaluable for an early-career researcher. I sincerely hope my collaboration with both of you continues for many years to come.

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In Thoiry, France on July 14th, 2020
Melina Aarnikoivu

TABLES

FIGURES

LIST OF ORIGINAL PUBLICATIONS

I Aarnikoivu, M., & Saarinen, T. (2020). "Kuuluuko täältä, kuuluuko nyt?": tohtoriopiskelijoiden verkkovälitteisen seminaaritoiminnan ongelmatilanteiden neksusanalyysi. *Puhe ja kieli*, *40*(1), 40–61. DOI: 10.23997/pk.95498

II Aarnikoivu, M. (In review). Studying international doctoral researchers: nexus analysis as a mode of inquiry.

III Aarnikoivu, M. (2020). The spatiotemporal dimension of doctoral education: a way forward. *Studies in Higher Education*, Online first. DOI: 10.1080/03075079.2020.1723530

IV Aarnikoivu, M., Korhonen, S., Habti, D., & Hoffman, D. M. (2019). Explaining the difference between policy-based evidence and evidence-based policy: A nexus analysis approach to mobilities and migration. *Journal of Finnish Studies*. *Special Issue: Engaging the New Mobilities Paradigm in the Context of Finland*, *22*(1&2), 213–240.

CONTENTS

ORIGINAL PAPERS

1 INTRODUCTION

Not too long before writing these words, when COVID-19 had not yet swept across the globe, 45,000 UK academics went on strike for eight days. The major reasons for the strike were pensions, pay, and precarity (Budd, 2019). At the same time on the other side of the globe, in Hong Kong, violent protests turned universities into battle grounds, forcing classes to be cancelled, students leaving, and academics worried over the future of the campuses and student recruitment (Normile, 2019). While these two incidents are only some of the examples representing the turbulent academic environment, there have been some controversial trends emerging in academia within the past twenty years, many of which are resulting from wider global and societal changes (Cantwell & Kauppinen, 2014; Marginson, 2016; Välimaa et al., 2016). The most significant ones are new public management (NPM), managerialism, and academic capitalism (Siekkinen, 2019), which are all widely studied and debated among higher education scholars.

The global trends of higher education are affecting both students and staff. A group that lies somewhere between these two, is doctoral researchers[2], who are a significant asset for universities in terms of knowledge production (Larivière, 2012). Not only do they teach, participate in research projects, and produce publications, they also form the future core of research and teaching, being able to answer the versatile needs of contemporary working life. However, individual motivations to start a doctorate vary extensively and are often related to personal interests, rather than solely contributing to the greater good of surrounding society (Lynch et al., 2018; Wiegerová, 2016). Doctoral journeys and experiences are highly unique, as they form *a nexus* of different actions, events, and processes, which are all surrounded by a variety of actors, objects, places, and discourses.

It is therefore not surprising that doctoral education has been studied extensively from different viewpoints by using a multitude of theoretical as well as methodological approaches. However, despite of all the research done on

[2] On doctoral researcher terminology, see Chapter 3.2.3.

doctoral education and doctoral researchers within the past decades, doctoral researchers' mental health issues continue to be on the rise (e.g. Barry et al., 2018; Levecque et al., 2017; Woolston, 2017, 2019). Factors which predict the risk of psychological distress and disorders for doctoral researchers the most include work-family conflict, job demands, job control, leadership style, as well as a closed decision-making culture(s) (Levecque et al., 2017). While this is hardly a surprise for anyone involved in doctoral education, this poses a problem for researchers, who—bluntly put—have two options: They can accept that this is simply the way academia is built and doctoral researchers should try to navigate their individual doctoral paths the best way they can, provided the best possible support available. This hardly seems like a viable option for those who are working with doctoral researchers or for those doing research on them. Luckily, there is another option, which is to ask ourselves: Could there perhaps be something we are currently missing or overlooking? Are we asking the right questions at all?

These were the questions I was asking myself at the beginning of this research process in 2015. Only one problem remained: how to gain traction on these questions? With a bit of search and help from my supervisors, I encountered a mode of inquiry which I was not familiar with prior to my studies: nexus analysis. Nexus analysis (Scollon & Scollon, 2004) is "a transdisciplinary discourse-ethnographic framework" (Pietikäinen et al., 2015, p. 187), which aims to address the connections between different ideas or objects and how they are connected to a wider phenomenon. The underlying idea behind nexus analysis is that different elements of *social action* (historical bodies, interaction order, and discourses in place, elaborated in Chapter 2.2.1) form a nexus where social actors, places, and discourses come together (Scollon & Scollon, 2004).

As both the theoretical and methodological principles of nexus analysis seemed promising, and they included some of the research methods I had already considered for my study before, I decided to explore the utility of this qualitative mode of inquiry in the context of doctoral education. Having established that doctoral education had not been an interest within applied language studies, or that few higher education scholars had exposure to theories and methods traditionally used in linguistics (see Chapter 2), it could be expected that applying a holistic, exploratory, and inductive mode of inquiry developed by linguists might reveal something that previous research on individual facets of doctoral education had either not been able to address or had simply missed. Following this idea, the present work explores doctoral education as a form of social action, or language as "doing" (Gee, 1999, p. 20). Specifically, it expands the analytical lens to include both those *who* (e.g. doctoral researchers, supervisors) and *what* (e.g. supervision, writing) is typically studied and those who are often ignored: those who study doctoral education, who make decisions on doctoral education, and other relevant social actors with academic power, who shape the lives of individual doctoral researchers.

I conducted the analysis by following three practical steps: engaging, navigating, and changing the nexus of practice, within a time period of five years.

For me, *engaging*, as well as the second stage of nexus analysis, *navigating,* happened in the two empirical settings of this study: at CERN (the European Organization for Nuclear Research) laboratory in Meyrin, Switzerland, and CALS (the Centre for Applied Language Studies) at the University of Jyväskylä, Finland. For two years I generated data in these two settings (eighteen months in each), which resulted in four sub-studies included in this dissertation. Here, it should be noted that the Scollons offer an extensive, practical fieldguide for nexus analysis in their 2004 book (pp. 152–178). I have used this fieldguide in all stages of the analysis. However, as the fieldguide is meant for all nexus analytical research, I adapted this fieldguide in the design I used for my topic. All of the sub-studies were conducted using nexus analytical principles. However, they were all implemented in slightly different ways, not only increasing my understanding of the empirical focus—doctoral education and doctoral researchers—but teaching me a great deal about doing nexus analysis and how it can be used when studying a highly complex topic. This is why I also discuss methodological choices and ethical issues to a large extent in the coming chapters. Finally, a large part of my work was focused on facilitating *change* (see Chapter 6) within specific nexuses of practice. Change is the ultimate goal of nexus analysis and something that I have also aimed at throughout this research process.

This work is structured as follows. In Chapter 2, I will discuss how nexus analysis has been previously used in applied language studies and higher education research. I will also explain its core concepts. Chapter 3 will include the relevant bodies of literature regarding this study: I will begin by introducing the wider context of doctoral education—the Bologna Process—, after which I will provide a concise literature review on doctoral education organised around the three parts of *social action*: historical bodies, interaction order, and discourses in place, illustrating how the current trends of doctoral education research connect to the theoretical framework of this dissertation. Here, it should be clarified that rather than formulating specific research questions, it is customary for nexus analysis to have a very generic empirical motivation, which helps the analyst to *engage the nexus of practice.* For this reason, there is no single, specific research question formulated to guide the direction of this work.

What *has* guided this dissertation are the three practical stages of doing nexus analysis, around which I have organised the remainder of this work: In Chapter 4 I will explain how I *engaged* the nexus of practice, including the description of data generation and the methodological choices made during the process. In Chapter 5 I will move on to *navigating* the nexus of practice, which comprises the results of each of the four sub-studies included in this work. Chapter 6, in turn, discusses the final, and arguably the most important stage of nexus analysis—*changing* the nexus of practice. There, I will discuss how a nexus analyst can facilitate change in the studied nexus by asking new, better questions and by participating in activities which address those tensions that were earlier mapped out during the two previous stages. I will also offer a reflexive account

as a change-maker at the end of the chapter. Finally, I will conclude the analysis and this dissertation in Chapter 7.

2 NEXUS ANALYSIS AS A MODE OF INQUIRY

Nexus analysis, the primary mode of inquiry of this dissertation, was developed by sociolinguists Ron Scollon and Suzie Wong Scollon in the early 2000s. However, it was based on much earlier work they had conducted some twenty years prior to the publication of their book *Nexus analysis: discourse and the emerging internet* in 2004. Starting in 1979 and extending far into the 1980s, the Scollons studied computer-mediated communication in higher education settings—at the University of Alaska, where they were teaching at the time. Ron Scollon was working at the Fairbanks campus and Suzie Wong Scollon in a distance education programme, physically taking place in remote villages of Alaska. This was during a time when technology such as computers, email, and audio/video conferencing were only emerging in different parts of society. (Scollon & Scollon, 2004.)

An idea occurred: The Scollons wanted to learn how to use UACN, the university's electronic mail system, to try how it would work with colleagues, and—if proving successful—to test it with students. This was before the Internet became mainstream and when such email systems were mainly used for military purposes. In 1981, the Scollons then began using email conferencing in teaching. Around that time, they took up several other projects related to audio and video conferencing, university services, and classroom practices. These projects were all targeted at improving the access of Alaska Native people to public institutions. Until that point, this group had mostly been excluded from educational, medical, legal, and economic institutions due to communicative technology and its use. However, as the Scollons stated, nothing happens in a social or political vacuum, meaning that there are always historical events or processes which also have an effect on mediated social action—in this particular case the world oil trade and the legal claims of Alaska Native people, as well as the Cold War, Alaska being less than five kilometres away at its closest point from the Soviet Union. (Scollon & Scollon, 2004.)

While I will not go into the details of the Scollons' ground-breaking work in Alaska, it can be summarised that during a time period of five to six years their consultation, teaching, and training activities spread across several organisations

across the US. In many of these organisations, the Scollons took an active role, making them facilitators of *change* (see Chapter 6) in the nexus of practice they were studying. By 1983, the Scollons had introduced the use of the email messaging to hundreds of students and several administrative offices. They were not the only scholars contributing to the development of email use in this context but they were actively aiming to bring social change to an issue they felt was important: discrimination and institutional racism against Alaska Native people within public institutions. As they conclude, some changes (some of which were highly unpredictable) were successful whereas others were not. Some changes were welcomed, others were not. (Scollon & Scollon, 2004, 2007.)

Why is such an elaborate account of the origin of nexus analysis important? First, it helps those who are not familiar with nexus analysis as a mode of inquiry to understand its underlying principles and logic. These principles may not be understood as easily by simply studying the core concepts of nexus analysis. Second, it illustrates an important facet of nexus analysis: not only does the studied *social action* and *social actors* have a history but also researchers studying it do: There were reasons why the Scollons ended up in Alaska and why they decided to conduct their research there, just like I had a reason to embark on my doctoral journey and decided to study doctoral researchers and doctoral studies as social action (see Chapter 4). In this sense, nexus analysis entails an interesting meta-level, which is important to bear in mind while reading nexus analytical works. Lastly, clarifying the background for the theoretical and methodological rationale for the current study hopefully helps the reader to see the connections between what went on in higher education settings some 40 years ago and what is going on in higher education settings in 2020, even if the continent and society are different.

Since the publication of the Scollons 2004 book, nexus analysis has attracted a fair amount of attention among researchers—mainly sociolinguists but also in some other fields. In Chapter 2.1 I will provide a concise overview of nexus analytical research. I will also discuss the relationship between nexus analysis, applied language studies, and higher education research. In Chapter 2.2 I will move on to explaining the core concepts of nexus analysis, which will be referred to throughout this work.

2.1 Nexus analysis in applied language studies and higher education research

Up to this day, nexus analysis has been used to study a diverse set of topics: language shift in a Kven community in Northern Norway (Lane, 2010) and a Swedish-peaking community of Gammalsvenskby in Ukraine (Forsman, 2015), everyday English-use of 11 to 17-year old FinSL signers (Tapio, 2013), the linguistic landscape of seven different villages in the area of North Calotte (Pietikäinen et al., 2011), second language learning in cleaning work (Strömmer,

2016, 2017), language learning of international nursing students in Finland (Virtanen, 2017a, 2017b), communicative practices in an Indonesian village of Gerai (Jocuns, 2018), and language policy discourse in Swedish education (Hult, 2007, 2010), to name a few. In some of them, nexus analysis is used as the principal framework, whereas in some it is combined with other concepts, wonderfully demonstrating its flexibility.

Considering the wider context of this study, higher education, the Scollons have not been the only ones to apply nexus analysis to study its different aspects. In her doctoral research, Gaisch (2014) studied international classroom affordances in an Austrian university and Hult (2015) language policy development at a Swedish university, both studies utilising nexus analysis. Considering higher education research as a field of study, however, nexus analysis has rarely been seen, which provides a further motivation for the present work. While the reason for the absence of nexus analysis in higher education research can only be speculated, the answer might be found in the interdisciplinary nature of higher education research. Teichler (2000), for example, has identified higher education research typically being categorised based on discipline, theme, or institutional setting. Most often, the disciplines that are considered to contribute to higher education research the most are economics, business studies, political science, history, sociology, and education. (Applied) linguistics is not usually seen on such lists, although there are plenty of studies in linguistics that have been conducted in the context of higher education, especially in teaching (see e.g. Coffin et al., 2005; Klapper, 2006; O'Keeffe & Walsh, 2012).

Higher education research is a highly scattered field, which is difficult to define (as also humorously portrayed by the "the higher education research archipelago" by Macfarlane, 2012). It covers topics that might not normally be of interest to linguistic research: quantitative structural aspects (e.g. admission and elite/mass higher education), knowledge and subject related aspects (e.g. acquisition and use of knowledge, relationships between teaching and research), teaching and learning-related aspects (e.g. teaching and learning styles), and aspects of institution, organisation, and governance (e.g. planning and administration, decision-making, and funding) (Teichler, 2000). While many of these themes and topics could surely be examined through a linguistic lens, thus far they have mostly escaped the attention of linguists (for excellent exceptions, see e.g. Hult, 2010; Hult & Pietikäinen, 2014; Saarinen, 2005a, 2005b, 2008; Saarinen & Ala-Vähälä, 2007; Saarinen et al., 2020).

As Berns and Matsuda (2009) state, however, applied language studies can be compared to other interdisciplinary fields that arose in the mid-20th century, such as cultural studies and women's studies. What is common for these fields is that they seek to break disciplinary boundaries. In this sense, it would be not surprising to find many (applied) linguists actively being engaged in discussions within higher education research. Yet, this does not seem to be happening, at least to a large extent. The reason for this could perhaps be found in the framing of those questions that linguistics, the *parent discipline* (Berns & Matsuda, 2009) of

applied linguistics and language studies, is primarily interested in solving language-related problems (McCarthy, 2001). This idea is also shared by Wilkins (1999), according to whom applied linguistics is "concerned with increasing understanding of the role of language in human affairs and thereby with providing the knowledge necessary for those who are responsible for taking language-related decisions whether the need for these arises in the classroom, the workplace, the law court, or the laboratory" (p. 7).

Following these definitions, it could be summarised that the target of interest in applied language studies[3] is *language in society*, and, as a field, it is primarily interested in solving language-related problems or addressing language-related concerns which stem from outside of language itself (Sajavaara, 2000). Respectively, higher education researchers are interested in *higher education* and the aim is to solve problems involving higher education. What this dissertation aims to accomplish, is to test how these two fields could be brought together by using nexus analysis as a theoretical-methodological mode of inquiry. As Tucker (n.d.) pointed out, there is a consensus among applied linguists that the aim of applied linguistics is to solve practical problems by applying techniques from linguistic research. As Spolsky (2008) also argued, these practical problems should not be considered in narrow terms, for example merely by looking at language teaching. Instead, one can find connections between language and one's surroundings wherever you look, particularly in education (Spolsky, 2008). In this dissertation, I have transferred Spolsky's (2008) idea into the context of higher education and doctoral education specifically: Language and higher education are not individual silos of scholarly interest but rather connected in many ways, as becomes apparent throughout the present work.

The focus of nexus analysis in itself offers an excellent starting point for combining the fields of applied language studies and higher education research: instead of taking language or culture as its unit of analysis, nexus analysis focuses on human *action*: How do people take and choose their actions? Which mediational means are enabling and constraining these actions? (Scollon & Scollon, 2004, 2007). Therefore, according to the Scollons (2004), what becomes interesting for the analyst is not *what* is being said, but also *how* and *why* it is said. While I agree with this, in the current study I have reformulated the focus being in what is being *done,* and particularly the contradiction between what is being *said that is being done* and *what is actually being done*, following the fieldwork guide provided by Scollon and Scollon (2004, pp. 158-178). To gain traction on this potential tension and to critically analyse doctoral education as *social action*, nexus analysis offers something of an all-in-one deal: the theoretical concepts as well as the roadmap how to methodologically implement one's study. These will be elaborated next.

[3] In this dissertation I use the term "applied language studies" instead of "applied linguistics" according to Sajavaara's (2000) definition, which describes applied language studies being wider, less linguistically oriented, and more closely connected to other fields (such as education) than applied linguistics.

2.2 The core concepts of nexus analysis

If considering the word *nexus*, it means *a connection* or *a link*[4]. In the context of nexus analysis, it refers to a link between two or more ideas or objects, which in turn connects them to a network. Therefore, the core idea behind nexus analysis is that any social action, along with its key elements, consists of an intersection, or *nexus*, of people, places, discourses, and objects (Scollon & Scollon, 2004). In short, nexus analysis is "the study of how ideas or objects are linked together", and entails "mapping of semiotic cycles of people, discourses, places, and mediational means involved in the social actions" one is studying (p. viii). Nexus analysis has also been described as the "historical, ethnographic, and methodological arm of MDA" (Scollon & Saint-Georges, 2012, p. 73), mediated discourse analysis (see also Scollon, 1999, 2002; Norris & Jones, 2005). To understand the theoretical-methodological underpinnings of nexus analysis, it is important to familiarise oneself with the following theoretical and methodological concepts:

2.2.1 Theoretical concepts

This section introduces and explains the core concepts of nexus analysis. These will be expanded later in the text in relation to their respective stages of analysis.

Discourses

There have been numerous definitions offered for *discourse* but, put simply, it is "the use of language in social interaction" (Scollon & Scollon, 2004, p. 2), which can refer to anything from a short greeting or a phone call to a meeting memo or an extensive ministry report. The Scollons also base their definition on the work of Gee (1999), who defined two levels of discourse: discourse with a small 'd' and Discourses with a capital 'D'. For Gee (1999), discourse with a little "d" is any stretch of language in use. Discourses with a capital D, however, expand the context of language use: they refer to what is socially accepted in specific places and times: ways of using language, thinking, valuing, acting, interacting, feeling, and believing, including the use of different symbols, tools, and objects (Gee, 1999). As Gee (p. 17) summarises, *Discourses* are "language plus other stuff". This distinction is important, as nexus analysts are interested in the latter specifically. To clarify, these discourses (which will be referred to with a small 'd' throughout this dissertation) are the same as those engaged in the social sciences by Foucault (e.g. 1977, 1984), Bourdieu (1977), and Wertsch (1998).

[4] According to The Concise Oxford dictionary of English etymology, the word *nexus* refers to a bond or a link. As such it was first used in the 17th century. The word originates from Latin; *nectere*, bind. (Hoad, 1993.)

(Mediated) social action

Social action refers to "any action taken by an individual with reference to a social network" (Scollon & Scollon, 2004, p. 11). Moreover, all social action is *mediated* (see also Article I), for all forms of discourse, whether written or spoken, there is a technology or other material requirements which support or enable it (Scollon and Scollon, 2004). In this dissertation I will therefore use the term *social action*, as all of it is, by definition, mediated.

The relationship between different discourses and technology is easy to imagine when thinking of a video conference, for example. However, the *technology* does not have to be anything complex—a pen and paper are enough. Furthermore, discourses and technology are connected to the extent that if one of them changes, so does the other (Scollon & Scollon, 2004). The Scollons also wanted to contextualise social action to a wider social, political, and cultural context to facilitate social *change*, which is how nexus analysis came to be. Following this idea, nexus analysis is "discourse analysis engaged in social action" (p. 7), which attempts to combine two levels of analysis: the small-scale analysis of brief moments of social interaction and a broader analysis of those social, political, and cultural relationships happening within different social groups. The Scollons (2004) argue that these two are tightly connected and thus should not to be viewed as random and separate. Combining these two levels is also why discourse (and nexus) analysis is so powerful in studying social life both from an individual and organisational perspective.

To specify, when an individual social action happens repeatedly, it becomes a *social practice* (Scollon & Scollon, 2004), which Gee (1999) also calls an *activity.* An example of a practice or an activity would be mentoring, which consists of several repeated social actions of discussing with a student. Based on this definition, doctoral education consists of several distinct social actions and social practices. However, in this work I also use *social action* as an uncountable noun when referring to doctoral education as a whole.

Three aspects of social action

Social action, which is taken by *social actors* (individuals or groups), consists of three parts, which are all mapped out and observed when doing one's analysis: historical body, interaction order, and discourses in place. The first, *historical body* (see Articles I, II, and III), refers to an individual's history, habits, motives, and ambitions. The idea behind this concept is that each person behaves differently in the same situation in reference to others, depending on their historical body. In other words, a historical body is "the baggage" we bring with ourselves to each situation. In nexus analysis, also the analyst's historical body plays a role. (Scollon & Scollon, 2004; see also Bourdieu, 1977 on *habitus*.)

The second, *interaction order* (see Articles I and II), stemming from Goffman's (1983) similarly named concept, means all those possible social arrangements that people use to form relationships in social interaction. For example, people talk differently depending on the person they are talking to but

also on the situation they are in at a particular moment. Here, the power relations of different people or groups of people become relevant. It is also important to note that interaction order is not necessarily static but can fluctuate even within a single event. (Goffman, 1983; Scollon & Scollon, 2004.)

The third, *discourses in place* (see Articles II and IV), is based on the idea that all social actions happens at a particular place, and that these places are "complex aggregates (or nexus) of many discourses which circulate through them" (Scollon & Scollon, 2004, p. 14). Some of those discourses involve slow time cycles (e.g. completing a doctorate) while others have a faster cycle (e.g. discussion with a colleague), some are relevant for the studied issue, others are not. (Scollon & Scollon, 2004.)

Site of engagement, nexus of practice

A site of engagement refers to a single historical moment, where social action is situated. It is a material space where specific practices take place and come together. When any site of engagement is repeated regularly, it becomes a *nexus of practice.*

Discourse cycle and circumferencing

A nexus of practice can be modified by its social actors by altering sites of engagement, or mediational means. To understand these changes, a nexus analyst has to broaden the *circumference* of the analysis in both time and space (see Articles I–IV). This is done by examining both present and past discourses and their linkages to each other as well as their connections to anticipated future discourses. These processes of circumferencing form *discourse cycles*, which circulate through the social action the analyst is focusing on.

2.2.2 Methodological concepts: the three stages of nexus analysis

Nexus analysis is a flexible mode of inquiry both in terms of data generation and analysis (Scollon & Saint-Georges, 2012). Whichever methodologies and methods are chosen, however, Scollon and Scollon (2004) suggest that the research process would involve three distinct stages: engaging, navigating, and changing the nexus of practice. These three fundamental stages also form the core of this dissertation: They are visible in the chapter titles of this work, starting from *engaging the nexus of practice*, in Chapter 4, followed by *navigating the nexus of practice* in Chapter 5, and finally resulting in *changing the nexus of practice* in Chapter 6.

Engaging the nexus of practice

The first stage, engaging, marks the beginning of a nexus analysis. At this stage, the analyst places themselves in the nexus of practice that they wish to study, also referred to as *zone of identification.* In practice, they find a way to become an

accepted and legitimate member in the studied community, and begin mapping out those *social actors*, *places*, *events*, *objects*, *tools*, and *discourses in place* that they suspect to be relevant for the studied social issue. These can later be redetermined based on further analysis conducted in the second stage.

Navigating the nexus of practice

After engaging, the analyst begins the second stage, where they navigate amongst the previously identified social actors and their trajectories, as well as different places, events, and objects. Here, it is crucial that the analyst does not "get stuck" on single, observable moments or social actors but instead keeps *zooming in* and *out* to see and understand the connections between them: The purpose of nexus analysis is not only to focus on the studied moment at hand but also on much wider historical analysis of different individual trajectories and discourse cycles that intersect in that moment. This stage forms the main part of nexus analysis.

Changing the nexus of practice

Finally, changing the nexus of practice refers to how the analyst changes discourses, motives, and actions within the nexus of practice (see Chapter 6) (Scollon & Scollon, 2004). In this sense, nexus analysis is a type of *activist research* (see Chapter 2.3 below), where the analyst actively aims at changing the nexus of practice they are studying.

It should be noted that these three stages presented above do not have to happen one after the other but they can—and often do—partly overlap. Additionally, they are not necessarily of equal length in terms of time they take. Generally, the second stage of navigating is the longest. In this dissertation, I will present five different ways to do nexus analysis in the context of European doctoral education: Four of these are demonstrated in the sub-studies of this dissertation, and the fifth one is this summary. Together, these five ways will aid me in finding out whether this type of a holistic, inductive mode of inquiry could reveal something novel on doctoral education that has been previously ignored.

2.3 Nexus analysis vs other activist research approaches

Nexus analysis shares many characteristics with other activist research approaches. One of its close neighbours is action research; a research methodology/philosophy which combines social research to developmental activities (Given, 2008). It focuses on both knowledge generation and designing action together with trained experts and other stakeholders alike, making it a joint effort for creating collaborative and democratic strategies (Greenwood & Levin, 2007). Action research typically involves all participants in all stages of

research to create novel solutions to practical problems, although the research process can also result in theoretical knowledge (Given, 2008).

Nexus analysis and action research are both highly reflective methodologies, deal with issues of power (Ladkin, 2011), and can offer valuable insider knowledge for the analyst. They also share the aim of change. However, nexus analysis does not exclude the possibility that the resulting change may not be welcomed by everyone in the studied nexus of practice, as happened with the Scollons' work, described in Chapter 2. At its core, nexus analysis is also quite a solitary journey for the researcher, at least at the beginning of the analysis process, although it does not necessarily have to be. A nexus analyst can and is encouraged to engage with different social actors to enhance the change to achieve "more democratic" outcomes, as in action research. Additionally, nexus analysis usually utilises only qualitative data, whereas action research might also include quantitative methods and data (Given, 2008). However, quantitative data could perhaps function as one possible starting point for or as supportive data in nexus analytical inquiry.

Another similar activist approach is critical action research, which elaborates traditional action research by adding critical theory to it. Critical action research also reverses the traditional hierarchy of researchers (="professionals") and the researched (="subjects"), empowering both groups. (Davis, 2008.) While nexus analysis does not explicitly do this, it does provide tools for the analyst to critically reflect on their position in relation to their research participants. For example, the field guide of nexus analysis (Scollon & Scollon, 2004, pp. 152–178) includes questions of power, such as how data generation (such as note taking or recording) might affect participants.

There are also other activist research approaches, which have been described as "participatory research" (Cancian, 1993). Previously, activist research was associated with empowering "the powerless" and those experiencing social inequality, thus excluding policy makers or academics (Cancian, 1993). However, as the Scollons' work at the University of Alaska (as well as the present work) demonstrates, "the powerless" can also be found within settings which might, at first glance, seem "privileged" but include power struggles and loss of voice in the same way as any other communities. Next, I will zoom into one such community—the one of doctoral researchers.

3 THE NEXUS OF PRACTICE: DOCTORAL EDUCATION IN EUROPE

As Scollon and Scollon (2004) stated, nothing happens in a social or political vacuum. Doctoral education and the social action of *doing doctoral studies* is no exception. Whereas for the Scollons it was the US politics and the Cold War playing an important part in the higher education settings they were studying, for this study it is the development of doctoral education in Europe within the past decades but also the current political climate in Europe—and globally (see Mathies & Weimer, 2018). This is why, in nexus analysis, it is important to consider historical development, processes, and events that for a much wider, very important contextual circumferences that shapes social action in ways many modes of inquiry simply miss. For doctoral researchers beginning their doctoral studies in Europe in 2020, the reality of being a doctoral researcher is very different compared to those who started their studies in 2000, let alone those who started it in 1980 when the Scollons were teaching in Alaska. What used to be more of a master–apprentice model (Bitusikova, 2009; Kivistö et al., 2017), following the Humboldtian university ideals (Ahola, 2007; Kallio et al., 2016), doctoral education is becoming more and more structured in all European countries, mainly due to the Bologna process (Stubb, 2012).

To discuss the reality of today's doctoral researchers, I will apply Krause's (2016a) work on the relationship of theory and theorising, and different approaches to explaining social phenomena. One of these is comparison via *conditions of possibility* (see also Krause, 2016b). Here, the phenomenon under study is compared to another phenomenon by asking "what would have to be different for this [the phenomenon] to be different from what it is?" (p. 54, parentheses added). Krause argues that by doing this, the explanation, analysis, and critique all come together. By naming these conditions of possibility, it is possible to identify what Krause calls "possible leverage points" (2016b, p. 27), both in analytical and practical terms.

To identify the possible leverage points of doctoral education, it is necessary to ask first: What makes doctoral education different from other levels of education? After all, doctoral education was added as "the third cycle" in the

Bologna process as a result of establishing the Salzburg principles in 2005 (EUA, 2005). This implies that doctoral education bears similarities to the "first and second cycle"—bachelor and master-level education. These similarities include, for example, that they all lead towards and end up in having a higher education degree. In addition, there is usually a curriculum that has to be followed, and the curriculum is designed by the university faculty. Finally, the aspect of *learning* is heavily present. Despite these similarities, however, there are significant differences between the doctorate and bachelor/master. First, purely comparing the number of students completing a bachelor's or master's degree and a doctorate reveals that doing a doctorate is still much less common. In Finland, for instance, there were 76,300 bachelor-level and 58,000 master-level students in Finnish universities in 2019, but only 18,300 postgraduate-level students (Vipunen, 2019)[5]. Second, doctorate cannot be completed much before turning 30, which means that it often falls to the same stage of life when one is possibly planning to have children: In the EU, the average age for women to have their first child was 29.1 in 2017, and the number is rising each year (Eurostat, 2019). Third, doing doctoral studies is not *studying* in the sense that bachelor or master's studies are studying: Although there are differences in how doctoral education is organised in different European universities, it is much more independent (EUA, 2005). It is also clearly research-focused (ibid.), although doctorate holders can work in other fields as well, and are also increasingly doing so as a result of the tightening working conditions in academia (see Eurydice, 2017). Doing a doctorate—ideally—also involves either a salary or a grant, although the modes of funding vary extensively (Eurydice, 2017). Finally, completing a doctorate is considered a requirement to pursue a specific type of career—a research career—and to enter research intensive professions, although it should be noted that an increasing number of doctorate holders are taking up jobs outside academia: Less than half of new doctorate holders can continue in academia today (Marini, 2019; Siekkinen, 2019; see also Bloch et al., 2015; Germain-Alamartine et al., 2020).

In this chapter I will discuss the larger context of European doctoral education and provide a concise literature review of doctoral education research. First, in Chapter 3.1, I will present a brief overview of the *historical* context where doctoral education in Europe is currently situated by discussing the Bologna process and the Salzburg principles. Chapter 3.2., in turn, is organised according to the three parts of *social action*: historical bodies, interaction order, and discourses in place, illustrating how the current trends of doctoral education research connect to the theoretical framework of this dissertation. Chapter 3.2 also wraps the previous literature together by pointing out what kind of work on doctoral education is arguably missing.

[5] The numbers include those who were registered either present or absent on September 20th 2019. The numbers do not include the ones studying in universities of applied sciences.

3.1 Recent developments in doctoral education: The Bologna process and the Salzburg principles

To provide a policy context for the current state of doctoral education in Europe, it is necessary to consider some major milestones which have taken place within European higher education in the last two decades. The most significant development is undeniably the launch of the Bologna process, which formally began from the signing of the Bologna Declaration in 1999 (see Westerheijden et al., 2013). Until then, the different European higher education systems had been completely separate entities, going through reforms mainly at a national level. However, with Bologna the pace of reforms accelerated and came to concern European higher education as whole. The first aim of the Bologna initiative was to create a harmonised, comparable, and competitive higher education within Europe to increase its attractiveness to students from outside Europe. The second reason was to make mobility within Europe easier—for students, credits, and workers alike. Originally, the process was supposed to continue only until 2010, when the European Higher Education Area (EHEA) was finally established. It was renewed, however, its current objectives extending until 2020, and further plans currently being in motion. By 2020, the process has been ratified by 48 countries[6]. (Brøgger, 2019; Enders et al., 2011; Huisman et al., 2012; Kehm, 2010).

At the beginning, the Bologna had six initial main objectives, which were related to comparable degrees, the two-cycle (Bachelor and Master) and credit systems, promotion of mobility, European co-operation in quality assurance, and developing European dimensions in higher education. Later, four more objectives were included. Three of them were related to lifelong learning, involvement of higher education institutions and students, and the promotion of the attractiveness of EHEA. The fourth added objective included the third cycle (the doctorate) to the process with the aim to create synergy between doctoral studies, EHEA, and ERA (the European Research Area). (Brøgger, 2019; Terry, 2007.) For doctoral education specifically, the Salzburg principles were established in 2005. The principles used the existing, ongoing doctoral reforms that were going on at the time on a national level in different European countries (Kottmann, 2011). Since 2005, several European universities have implemented a number of doctoral school reforms, but the changes in doctoral education are still ongoing (Mrčela et al., 2019).

As a follow-up action to the original Salzburg principles, the Salzburg II initiative was carried out in 2010. It involved a consultation that was done with the EUA Council for Doctoral Education (EUA-CDE[7]). The outcomes of the consultation represented 165 institutions from 36 different countries. The first part of the outcomes served as the basis of defining the doctorate as an original research project, and explaining why doctoral education differs from other levels

6 To see the list of all members, see http://ehea.info/page-full_members

7 EUA-CDE is the largest organisation of doctoral education in Europe, bringing together both academic professionals and leaders.

of higher education ("the first and the second cycles"): it is significantly more independent and clearly research-focused. The second included concrete improvement suggestions of doctoral education, which were targeted at universities but also at those who provide legal frameworks for doctoral education. The third part was aimed at non-university stakeholders, such as decision makers and funding organisations. The recommendations include a variety of topics ranging from recruitment, supervision, outcomes, and career development to quality, internationalisation, funding, and a legal framework. (Sursock & Smidt, 2010). These, in turn, map on to some—but not all—aspects of doctoral education as social action, which will be discussed later in this chapter.

As a whole, the ten Bologna objectives have received a great deal of criticism (see Brøgger, 2019; Huisman et al., 2012; Witte et al., 2009; Kehm, Huisman & Stensaker, 2009; Neave, 2002; Neave & Maassen, 2007). As Huisman et al. (2012) discussed, the least developed action line of the process is the one related to its social dimension: It addresses "wicked problems" (Peters, 2017; Ramaley, 2014; Rittel & Webber, 1973) such as widening participation and inequality, for which there are no clear solutions, and involve several stakeholders who often disagree on these topics. In fact, the Bologna Process has close ties to several other groups, such as the European Council (Huisman et al., 2012), the European Commission (EC) (Brøgger, 2019; Huisman & van der Wende, 2004), the Bologna Follow Up Group (BFUG), the European Association of Universities (EUA), the European Association of Institutions in Higher Education (EURASHE), the National Unions of Students in Europe (ESIB, later European Student Union, ESU), the European Network of Quality Assurance agencies (ENQA), Council of Europe, UNESCO (through CEPES), Education International, and Business Europe (Huisman et al., 2012). Although this list might appear exhaustingly long, it illustrates the variety of *social actors* (see Chapter 2.2.1) that mould and are involved in the discussions regarding higher (and doctoral) education in Europe. What is discussed on a higher *scale-level* has an impact on a lower *scale-level* (see Blommaert, 2007; Blommaert et al., 2015; Article III): an individual doctoral researcher and doctoral education as social action—the focus of this dissertation.

3.2 Earlier research on doctoral education

There is no shortage of research on doctoral education. To provide a rough overview of what has been studied previously, I conducted a literature search on Google Scholar by searching for the 500 "most relevant" journal articles by using the following search terms: "doctoral education", "doctoral students", "doctoral researchers", "PhD students", "doctoral programmes", and "doctoral curricula". Acknowledging the limitations of Google Scholar, as well as the limitations of language (having articles written in English only), I concluded this search to be accurate enough to provide a rough overview on the topic. Afterwards, I went through each article title and abstract and categorised the articles by themes.

Based on this it was possible to distinguish the following wider research categories:

FIGURE 1 Research on doctoral education

Additionally, there were many discipline-specific (especially nursing and social work) and country-specific (especially the US, Australia, and China) studies focusing on one of the above themes. There were also studies which did not fall into any themes with more than 0-4 other papers, which I categorised as "others".

What should be noted about this list is that many studies could have been placed into two or more groups, which is why providing specific numbers on each category would not be entirely accurate. However, there seemed to be a tendency that the highest number of studies were to be found in the themes of supervision, mentoring, and support; writing and publishing; doctoral experience, learning, and satisfaction; and careers and employment. This corresponds to what I have observed during the past five years while reading newly-published research and taking part in conferences, symposia, and seminars on higher education, where especially supervision and doctoral writing have been discussed to a great extent.

Because of the vast amount of literature, it would be futile to try and present an exhaustive and detailed review of it. This is why I have chosen to focus on literature that is published within the past 10 years, providing an overview of the most recent doctoral education research. Furthermore, I chose to present

literature is directly connected to the three aspects of social action; historical bodies, interaction order, and discourses in place (see Chapter 2.2.1), illustrating how different parts of doctoral education create a wider, interconnected entity.

3.2.1 Historical bodies—bringing in the "baggage"

Historical bodies refer to an individual's history but also their habits, motives, and ambitions. For this reason, we all behave slightly differently in a given situation—we bring our own unique "baggage" to them (Scollon & Scollon, 2004). As the number of doctoral researchers is increasing worldwide (Hasgall et al., 2019), it can be safely assumed that also the heterogeneity of this group is increasing—no doctoral researcher shares a fully identical historical body. Next, I will provide a brief overview of what we know about doctoral researchers' backgrounds and motivations to begin doctoral studies.

Doctoral researchers' backgrounds

Within the past ten years, scholars have focused especially on first-generation and international doctoral researchers. In their work, Gardner and Holley (Gardner, 2013; Gardner & Holley, 2011; Holley & Gardner, 2012) have discussed the challenges for first-generation doctoral researchers in the US (32.1% of all US-based doctoral researchers in 2010). Because first-generation doctoral researchers do not hear about graduate school experiences from their parents or grandparents, it is more difficult for them to navigate the unfamiliar territory. Moreover, because their parents also more likely to have lower income, only getting into graduate school might have been more difficult for first-generation doctoral researchers than for their non-first-generation peers. This also places this group under higher financial pressure, resulting in higher amount of debt. As Gardner (2013) points out, first-generation doctoral researchers might also not be aware of all the possible financial support mechanisms, such as fellowships. Instead, they take up jobs outside academia to finance their studies. Lack of financial support, in turn, leads to longer degree-completion time (Gardner, 2013).

Gardner (2013) and Gardner and Holley (2011) also discovered that first-generation doctoral researchers experience the feelings of *otherness*; as if they did not belong to the academic world. In turn, while being with their families they were worried that they would say something that their families did not understand, placing them somewhere in-between two worlds. According to Gardner and Holley (2011), these feelings also contributed to first-generation doctoral researchers' imposter syndrome, especially among women and doctoral researchers of colour. Challenges of these two groups of researchers have also been reported by other scholars (see Cumings Mansfield et al., 2010; Perez-Felkner et al., 2020; Snyder, 2014). In the light of this research, it would be important to offer proper support mechanisms, such as mentoring, especially for the groups that are facing more challenges than others (Cumings Mansfield et al., 2010; Gardner, 2013).

Otherness has also been discussed by a number of other scholars. It has been reported that the feelings of otherness can be experienced by doctoral researchers related to various kinds of professional, relational, and personal aspects (Pifer & Baker, 2014; Ward & Brennan, 2020), further illustrating the diversity of doctoral researchers' backgrounds and life circumstances. Specifically, otherness has been discussed in the context of mobile academics and international doctoral researchers (see Article II; Elliot et al., 2016a; Kim, 2017). According Laufer and Gorup (2019) and Metcalfe et al. (2018), international doctoral researchers are even at a greater risk of developing mental health issues during their studies, although it should be pointed out that reported mental health issues are increasing among all doctoral researchers (Barry et al., 2018; Levecque et al., 2017; Williams, 2019; Woolston, 2017, 2019). With international doctoral researchers this is connected to how well they are able to adjust to a new culture, handle the practical issues of moving countries, and deal with stress as they do not have the same access to friend/family support as they would have in their country of origin (see also Cai et al., 2019; Robinson-Pant, 2009; on *culture shock* see Ward et al., 2008).

Taking a look at the Finnish context, where "elite universities" do not exist in the way they do in the US or the UK, I would like to draw attention to a study on doctoral researchers' backgrounds done by Jauhiainen and Nori (2017). So, who are Finnish-based doctoral researchers? Based on extensive quantitative data, Jauhiainen and Nori (2017) divided them (N=18 687) into three distinct groups: "long-term hard-workers" (18%), "status enhancers" (45%), and the ones with "inherited educational capital" (37%). The first group was clearly the oldest on average (42 years old) and had been doing their doctorate on 11 years on average, meaning that for them, doing a doctorate was more of a side activity. They had the highest average annual income and a highly educated spouse. The two other groups were fairly similar: 33 and 35 years old on average, having significantly lower annual income than the first group, and working on their thesis for 5 and 4 years respectively. The difference between these groups was the educational background of their spouse and parents (lower vs. higher education background).

Although Jauhiainen and Nori (2017) did not discuss the effect of the background on the doctoral journeys specifically, they pointed out that the groups reflect the long-term Finnish higher education politics, which has enabled equal access to education independent on one's socioeconomic background (for criticism, see Nori, 2011; Pulkkinen & Roihuvuo, 2014). Second, the groups also illuminate the heterogeneity of Finnish-based doctoral researchers and breaks the stereotype of a young, poor doctoral researcher struggling to gain funding. However, as Jauhiainen and Nori (2017) assert, the groupings also reveal an interesting tension between the variety of backgrounds and the unified aims of doctoral education policies and ideals. For example, the current trends resulting from the Bologna Process do not seem to favour the first group of doctoral researchers, "the long-term hard-workers", for whom doing a doctorate seems to be a secondary, part-time activity. In fact, Jauhiainen and Nori (2017) question

whether the universities would like to "get rid of" this group altogether. It is a valid question on the European level as well: Is there room for doctoral researchers who do not directly fit into the harmonising Bologna mould?

Why do people choose to do a doctorate?

Having motivation means "*to be moved* to do something" (Ryan & Deci, 2000, p. 54). Motivation prior to and during doctoral studies has been reported to be significant in terms of doctoral success (Lynch et al., 2018; Sakurai et al., 2017). What then pushes people towards doctoral studies? Although motivations to pursue a doctorate has mainly been studied in different disciplinary or country-specific contexts, some interesting findings have been reported. If we take a look at In Guerin et al.'s (2015) study comprising multiple disciplines at an Australian university, five important factors emerged: encouragement from family and friends; intrinsic motivation to study a particular topic; lecturer influence (behaviour and encouragement); having previous research experience; and career progression. However, as Guerin et al. (2015) point out, there might be difference between disciplines in how common these factors are.

There have also been motivation studies in contexts of other countries, such as the US (Zhou, 2015) and Czechia (Wiegerová, 2016). The findings of Zhou's (2015) qualitative study on the motivations of international doctoral researchers to pursue a doctorate in the US revealed four categories: intrinsic interest in research; intrinsic interest in teaching; high utility value of a US-trained doctorate holder; and high emotional and social cost of quitting. These are partly in line with Guerin et al.'s (2015) study and partly different. In turn, by conducting in-depth biographical interviews at Czech universities, Wiegerová (2016) identified both external and internal factors related to motivation. The external ones included fulfilling someone else's ideas; role model influence; and obtaining financial income, whereas the internal ones included the desire to become a researcher; to be good in the chosen field; to get to the university; and to extend one's student life. This shows that motivations can stem from the university, one's family, or within the individual themselves, once again showing that pathways to doctoral programmes can be highly versatile.

According to both Guerin et al. (2015) and Zhou (2015) however, knowing what motivates doctoral researchers is important also from universities' point of view: It would help them attract and recruit "the right people" into their doctoral programmes. The universities should also make it clear for doctoral researchers from the very beginning what it is possible to accomplish with the degree, and knowing the motivations helps in this. Being aware of the motivations would also help in developing doctoral programmes.

In nexus analysis, also the analyst's historical body plays an important role. My motivations and ambitions to start this research process will be elaborated in Chapter 4.

3.2.2 Interaction order—How to "talk the talk and walk the walk"?

Interaction order refers to all possible social arrangements that we use to engage in social interaction (Goffman, 1983; Scollon & Scollon, 2004). For an individual doctoral researcher this means that they speak differently in academic settings than at home, for example, as discussed in the previous subchapter on historical bodies. Even within academic settings an individual doctoral researcher would most likely speak differently with a peer and a professor. Moreover, they would also most likely dress differently at a doctoral seminar than they would at a doctoral defence. Therefore, examining different interaction orders can reveal and help in understanding the power relations of different individuals or groups (Scollon & Scollon, 2004).

Besides Article I, there are few studies which explicitly explore the interaction order in a doctoral context (for interaction order and supervision, see Johansson et al., 2014; Strandler et al., 2014). However, there are several studies which address how doctoral researchers come to learn how to navigate the academic currents. Gee (1999) referred to this as learning how to "talk the talk and walk the walk". In the previous section historical bodies, I already referred to previous studies on doctoral researchers' challenges to "fit in". For first-generation doctoral researchers, for example, it can be more difficult to learn the norms, or the *cognitive map* of graduate schools, meaning that they do not know what types of questions to ask, or even from whom to ask, because they had no prior reference point (Gardner, 2013). For them, there are many "unknown unknowns"—things they do not know that they do not know (Logan, 2009).

Next, I will discuss the most recent research on how doctoral researchers become part of the "academic tribe(s)" (Becher & Trowler, 2001), and who help them to do that. Although most of them do not focus on individual events or situations, I have decided to include them in this section to provide an overview of the wider interaction orders of doctoral education.

Supervision

The "constellation of networks" (Jazvac-Martek et al., 2011, p. 23) around doctoral researchers—those who offer support for doctoral researchers—has been studied to a great extent. Mantai and Dowling (2015) identified three types of support: emotional, academic, and instrumental, offered by family members, supervisors, colleagues, friends, and institutions. These groups can thus be considered *relevant social actors* (see Chapter 2.2.1) of doctoral studies. However, to successfully complete the doctorate, there is one social actor above others—the supervisor (e.g. Basturkmen et al., 2014; Martinsuo & Turkulainen, 2011). For example, lack of satisfaction or low quality of supervision has been connected to the experiences of burnout, which in turn are connected to doctoral researchers' intentions to quit their studies (Cornér et al., 2017). Supervisory relationships gone wrong might also cause heavy damage at an institutional level (Parker-Jenkins, 2018) as wasted resources. Thus, it is not surprising that supervision remains to be one of the most studied topics within doctoral education research.

As Schneijderberg (2019) summarised supervision literature, supervision is considered demanding, and its practices are unstandardised and highly connected to a supervisor's personality and experiences. Supervisors might also have to be juggle with multiple roles: the one of a mentor, coach, critical friend, gatekeeper, crisis manager, evaluator, motivator, or realist, for example (Schneijderberg, 2019). The problems and challenges that supervisors face are varied: First, because of versatile doctoral researchers' backgrounds (see Chapter 3.2.1), there is no supervisory style that fits for everyone (Boehe, 2016; Parker-Jenkins, 2018), which is why it is difficult for supervisors to predict what lies ahead at the beginning of a new doctoral researcher–supervisor relationship (Boehe, 2016). Second, supervisors are expected to aid doctoral researchers with all possible career paths, although they might only have experience on working in academia (Duke & Denicolo, 2017). Third, supervisors are constantly balancing between other duties as well—research, administration, and applying for funds—and expected to do all of that well (Duke & Denicolo, 2017), which places them under constant pressure. As also Baptista (2011) pointed out, the Bologna Process did not make supervisors' lives any easier. She argued that structured doctoral programmes do not provide enough space for supervisors' heterogeneity and creativity, and cause pressure under strict frames and demands for high quality doctoral education (Baptista, 2011).

There have been some studies and literature reviews conducted on supervision-related challenges. In her excellent review of doctoral supervision research conducted in the UK, Australia, Sweden, and the Netherlands the past 20 years, Bastalich (2017) distinguished four different bodies of literature which address what good doctoral supervision is, connecting different social actors involved in doctoral supervision: academics, doctoral researchers, academic developers, and government. The first set of literature involves supervisors' perceptions of their role and how to improve supervision from an individual supervisor's perspective. The second focuses on governmental impact (e.g. policy and funding) on supervision, and how supervision takes place at an institutional context. The third set of literature, in turn, is connected to research pedagogy and socialisation. It problematises research training, which is considered central to the academic culture. Finally, the "academic as a subject" literature problematises supervision and academic culture because, according to the literature, the latter is based on tension and inequalities in academic relationships. (Bastalich, 2017.)

Based on her review, Bastalich (2017) concluded that restricting supervisors work is not doing much good from the viewpoint of research training. Supervisors should not have to bear the sole responsibility for it, but also wider research networks, institutions as well as governments should be involved. Bastalich also asserted that innovation and its dependence on disciplinary contexts ought to be paid more attention to, rather than the skills of individual researchers. Finally, she argued that there is a need to increase the emphasis on learning about research contexts and to recognise learning about specific knowledge skills, whether they are related to disciplines, language, methodologies, research practices, or cultural issues.

To improve supervision and address the challenges listed above, there have been some interesting developments in supervision practices, such as online supervision (Deshpande, 2017; Nasiri & Mafakheri, 2015; Orellana et al., 2016), the importance of which has increased during spring 2020. Another form of "non-traditional", one-on-one supervision is collective supervision (Agné & Mörkenstam 2018; Fenge, 2012; Wang & Byram, 2019), which has been shown to have immense benefits for first-year doctoral researchers specifically: an increased probability of thesis completion and decreased time of thesis completion (Agné & Mörkenstam, 2018). Other forms of support which rely on such wider learning contexts will be addressed next.

Doctoral researcher socialisation

Fortunately, teaching doctoral researchers the "rules of academia" does not have to fall on the shoulders of supervisors alone. Instead, doctoral researchers gradually socialise into the academic environment; a process which has already partly begun during undergraduate studies. There is no lack of research on doctoral researcher socialisation[8]. This is not surprising, as failure in the socialisation process (like in supervision) has been connected to doctoral attrition (Golde, 2000). Much of the recent work on doctoral researcher socialisation is based on the theoretical framework developed by Weidman et al. (2001) and Weidman and Stein (2003). As they stated, the socialisation process takes place throughout doctoral studies when observing and interacting with other scholars. Weidman et al. (2001) identified three aspects of socialisation. The first, *knowledge acquisition*, involves learning the language, history, problems, as well as ideology of the academic profession. The second, *investment*, refers to how a doctoral researcher uses their time and energy to engage with their organisation or research group. Finally, *involvement* means the process where an individual participates in academic activities and internalises the role of a professional as a result.

As Gopaul (2011; see also Twale et al., 2016) argued, however, there is inequality among doctoral researchers in terms of socialisation, and that specific aspects of academic work maintain and strengthen these inequalities. To address this issue, Gopaul (2011) proposed that universities ought to create more versatile learning opportunities for doctoral researchers, which would challenge the "normative socialisation trends" (p. 18). A recently developed model that could answer to this need in the context of international doctoral researchers is the one developed by Elliot and colleagues (2016a, 2016b, 2016c, 2020): Their series of studies on international doctoral researchers' academic acculturation[9] emphasise

8 Here, I use Merton et al.'s definition of socialisation: "the processes through which [a person] develops [a sense of] professional self, with its characteristic values, attitudes, knowledge, and skills… which govern [his or her] behavior in a wide variety of professional situations" (Merton et al. 1957, p. 287, as cited in Gopaul, 2011).

9 "[A]cculturation is indicative of the learning of appropriate behaviour in a new culture" (He, 2002, p. 323 as cited in Elliot et al., 2016c).

the importance of the so-called *hidden curriculum* (Harding-DeKam et al., 2012) and *third space* (Skerrett, 2010), shifting the attention towards support offered outside—and in addition—to formal academic support systems. This, according to Elliot et al. (2016a) can mean establishing social connections, enhancing intercultural competence, and improving linguistic competence in informal settings, for example. As Elliot et al. (2016c) asserted, what might first seem lack of motivation or competence is simply caused by the fact that international doctoral researchers do not know "the rules of the game". This is why—together with supervisors, support staff, and international doctoral researchers—universities ought to seek solutions how to teach those "rules" to improve international doctoral researchers' experiences (Elliot et al., 2016a).

Another interesting lens to international doctoral researcher socialisation was offered by Anderson (2017), who studied socialisation by exploring internal and external academic discourse socialisation of Chinese doctoral researchers in Canada. He used the concept of *doctoral gaze* (drawn on Foucault, 1995) to discuss both real and imagined disciplinary powers influencing socialisation. As Anderson (2017) argued, *gaze* is a useful concept to examine doctoral researchers specifically because they continuously encounter unequal power relations and surveillance by their supervisors, other researchers, and thesis examiners, for example, which can either support or constrain them (see also Article III). Anderson's (2017) analysis of *critical incidents* highlighted that the participants of the study had both positive and negative socialisation experiences during their studies, but both types of incidents helped them in building their scholarly identity and agency.

In some cases, however, doctoral researchers do not feel they belong in any community. In the Finnish context, Pyhältö et al. (2009) reported that almost a third of the surveyed doctoral researchers (N=602) did not feel they were part of any scholarly community, but instead felt isolated and alone. In another Finnish-based article, Vehviläinen and Löfström (2016) found that most doctoral researchers did not have access to practices, where supervisory responsibilities would be shared with a larger number of people. In fact, the idea of such shared support is fairly new; most literature on supervision at the beginning of 2000s was conceptualising doctoral supervision as a relationship involving a master and an apprentice (Vehviläinen & Löfström, 2016). Scholars who were launching the discussion on shared support responsibilities were Boud and Lee (2005), who argued that doctoral supervision is not enough to support doctoral researchers. They suggested the frame of *peer learning*, which is accomplished by *distributed* pedagogy; involving wider responsibilities, increased agency, and supportive research environment. Some promising models for this exist, such as Communities of Practice (CoPs)[10] (see Cai et al., 2019; van de Laar et al., 2017) and different types of peer-mentoring groups (see e.g. Aarnikoivu et al.

[10] By a *Community of Practice* (CoP), Cai et al. (2019) refer to Wenger's (2000, 2010) definition, according to which a CoP is a social learning system, which exists *within* another social learning system. CoPs are "groups of people informally bound together by shared expertise and passion for a joint enterprise" (Wenger, 2000, p. 139).

forthcoming; Brill et al., 2014). In such models, doctoral researchers' psychological wellbeing is taken into account as well. Considering the increasing number of reported mental health problems mentioned earlier, it is clear that such practices and understanding will be greatly needed in the future.

Disciplinary differences

Doctoral education is not important only in terms of knowledge production in general, but in terms of reproduction of disciplines as well (Dowling et al., 2012). It is not enough for doctoral researchers to learn to navigate in academia as a whole, but within their own discipline as well (Gardner, 2010). As Gopaul (2011) also suggested in his conceptual article, investigation of different disciplines could shed light on the differences in power and legitimacy between different disciplinary cultures.

In 2005, Pearson argued that there was an odd mismatch between research and stakeholder interests in terms of discipline. For example, while governments' attention was often targeted at STEM (science, technology, engineering, mathematics) fields, most research on doctoral education had taken place within HASS (humanities, arts, social sciences) fields and education (also Leonard & Metcalfe, 2006). Since then there have been a number of studies conducted on the first group but it still cannot be compared to the latter in terms of number. Some notable examples on STEM doctoral researchers within the past decade include studies by Borrego et al. (2019), Hancock and Walsh (2016), and Vekkaila et al. (2019), which focus on knowledge creation, doctoral experience, funding, and professional identity.

One of the most well-known and seminal works on different disciplinary cultures is by Becher and Trowler (2001) on *academic tribes*, first published in 1989. They stated that disciplinary knowledge, in itself, is only one of the many academic activities, and not that significant anymore, although it is still important to be able to understand the academic profession. They based this argument on the changed nature of higher education, characterised by rapid speed of changes, information overload, competitiveness, and uncertainty (see also Cameron & Tschirhart, 1992), but also on wider social changes, such as the world economy. Furthermore, Becher and Trowler (2001) described that these changes have a direct impact on academics, their tribes, and disciplinary territories.

Becher and Trowler (2001) defined *academic cultures* as sets of "taken-for-granted values, attitudes and ways of behaving, which are articulated through and reinforced by recurrent practices among a group of people in a given context" (p. 24). Using nexus analytical terms, academic cultures and ways of doing research are thus not only dependant on the *historical bodies* of researchers but also the *interaction order* and *discourses in place* within the discipline. One of the most important distinctions between different academic cultures is the way they perceive and produce knowledge. Based on their vast ethnographic data, Becher and Trowler (2001) distinguished four different types of disciplinary

groupings (see Table 1). In these four groups, the nature of knowledge is understood—and acted on—very differently:

TABLE 1 The Nature of Knowledge in different disciplinary groups (adapted from Becher & Trowler, 2001, p. 36)

1) Hard-pure (e.g. physics)	cumulative; atomistic (crystalline / tree-like); concerned with universals, quantities, simplification impersonal, value-free; clear criteria for knowledge verification and obsolescence; consensus over significant questions to address, now and in the future; results in discovery / explanation
2) Soft-pure (humanities, e.g. history)	holistic; concerned with particulars, qualities, complication; personal, value-laden; dispute over criteria for knowledge verification; lack of consensus over significant questions to address; results in understanding / interpretation
3) Hard-applied (technologies, e.g. engineering)	purposive; pragmatic (know-how via hard knowledge); concerned with mastery of physical environment; applies heuristic approaches; uses both qualitative and quantitative approaches; criteria for judgement are purposive, functional; results in products / techniques
4) Soft-applied (e.g. applied social sciences)	functional; utilitarian; concerned with enhancement of [semi-] professional practice; uses case studies and case law to large extent; results in protocols, procedures

The above distinction is known by most higher education researchers but less familiar to those in applied language studies. However, it would be important for both (or any) groups of scholars to understand that the ways in which different disciplines perceive knowledge also have direct consequences on the language use and actions that are involved in researchers' daily life. For example, physicists and applied linguists have different rules and norms for writing a scientific article, for example. When disciplinary differences are combined with the *historical bodies* of each discipline, it poses an interesting dilemma for the universities, similar to the one I raised with individual doctoral researchers in the previous subchapter: How to keep making doctoral education more uniform and equal throughout university, according to the Bologna Process and the Salzburg principles, while at the same time making sure that disciplinary differences are taken into account in planning and implementing support structures and curricula?

3.2.3 Discourses in place—What is being talked about?

The third and last part of social action is *discourses in place*. According to nexus analytical principles, each place is surrounded by social actions, which therefore make them intersections of different discourses. Some discourses move through a place faster, some slower, and some of the discourses are more important (foregrounded) than others (which are backgrounded). (Scollon & Scollon, 2004.)

In this subchapter I will present the most foregrounded discourses related to doctoral education: What has been talked about and paid attention to by doctoral education researchers within the past decade? Like with the *interaction order*, I expand the Scollons' notion of discourses in place, which for them primarily meant text, signs, and symbols at a physical place where social action is happening. However, as there is no such research done in the context of doctoral education, I have decided to focus on wider discourses "in place" instead. Some of these discourses, or *Conversations* (Gee, 1999) were already presented in the two previous subchapters, where I discussed doctoral researchers' backgrounds, motivations, and different forms of support. However, some foregrounded discourses in place remain to be addressed.

A "student" or a "researcher"?

As described in Chapter 3.1, the Bologna process recognises doctoral education as a third cycle along with two other levels of higher education. However, there is a variety in terminology that is currently being used in Europe regarding both doctoral education and those completing it. In Europe, "doctoral education" is also referred to as "postgraduate education" or "research training", and those studying in doctoral programmes are "doctoral candidates", rather than "doctoral students" (Bitusikova, 2009). In research literature, however, there is great variety in the used terms, even within Europe: there are references to "doctoral students" (e.g. Caliskan & Holley, 2017; Jazvac-Martek et al., 2011; Kyvik & Olsen, 2012; McAlpine et al., 2009; Ward & Brennan, 2020), "doctoral/PhD candidates" (e.g. Djerasimovic & Villani, 2019; Schneijderberg, 2019), "doctoral researchers" (Duke & Denicolo, 2017; Cai et al., 2019), and "doctoral graduates" (e.g. Brill et al., 2014), although many of these studies use two or more terms interchangeably. The terminology might also depend on the country and the university as well, as doctoral researchers have differing roles depending on their funding and employment status (Bitusikova, 2009).

The discussion on what to call doctoral researchers is becoming more and more vivid (see Acatiimi, 2017; Griffiths, 2016; Ollerton, 2018; Thomson, 2014). In Finland, for example, "postgraduate student", "junior/early stage researcher", "doctoral trainee", "doctoral student", and "doctoral researcher"[11] can all be found, depending on the university. The Finnish Union of University

[11] In Finnish, these are "jatko-opiskelija", "nuorempi tutkija", "tohtorikoulutettava", "tohtoriopiskelija", and "väitöskirjatutkija" respectively.

Researchers and Teachers (FUURT) stated that the title should be "junior researcher or "dissertation researcher", when a doctoral researcher is in an employment relationship with the university. This recommendation is based on the European Charter of Researchers (European Commission, 2005) and already implemented by some Finnish universities. As each university can decide the job titles and requirements of each employee group, however, the unification of the terminology has led to no agreement. (Acatiimi, 2017). The Early Stage Researchers' Work Group of FUURT, which oversees the interests of doctoral researchers and recently graduated post-doctoral researchers, recommend on their website that the title of an "early stage researcher" ought to replace the titles including "student" or "trainee" (FUURT, 2019).

In a recent editorial, Roitto and Impola (2019) discussed the terminology from the point of view of language use and power. They point out that especially in Finnish science, the naming culture has not been discussed to a great extent. While there has been some discussion on the title of "docent"/"adjunct professor" (Acatiimi, 2013), there has been less talk about what doctoral candidates should be called. They refer to the recommendations by FUURT and its early-stage researchers' working group and elaborate that, as concepts, the terms "trainee" and "student" are rather passive. Furthermore, these terms also have negative practical implications when a doctoral "student" is dealing with different authorities; when negotiating a mortgage at a bank, for example: Finnish banks typically expect loan applicants to have a permanent job and provide all the employment details with past salary receipts. (Roitto & Impola, 2019.)

As Roitto and Impola (2019) argue, the reason the terminology matters is because it conveys how society views different professions, their status, and their value. For example, they remind that not anyone is eligible or able to become accepted into a doctoral programme. They speculate that using the terms "student" or "trainee" might be due to sloppy language use or lack of knowledge, but also due to use of power through language. These terms label the person categorising them as someone who, despite of working as an expert in a project, for example, is "not ready". They find this strange, considering that many university strategies refer to the ideals of collegiality, equality, and community building. They acknowledge the fact that doctoral studies include some courses and credits that have to be acquired in addition to the dissertation but these credits are not comparable to the ones in bachelor's and master's programmes— instead, they are deepening one's existing knowledge and expertise. Thus, it is *work*, not *studying,* although as a result of the Bologna process many universities have adopted the name "doctoral school" or "graduate school" to refer to the administrative entity organising doctoral studies in each university. (Roitto & Impola, 2019.)

However, no one is ever "ready", as Roitto and Impola note. Even after completing the doctorate, one has to keep gaining new skills and expertise. Furthermore, doctoral researchers largely engage in the same activities than their senior colleagues, even if the intensity, scope, and level might differ: They write

and publish academic articles or other texts, participate in scientific discussions, and present at conferences (see also Boud & Lee, 2005). Here, they are grouped together with other, more senior colleagues. Their publications have the potential of generating the same amount of money for the universities as the publications of doctorate holders. In some cases, they also need to acquire their own funding, participate in editorial duties, and organise seminars and conferences. From this viewpoint, calling doctoral researchers "trainees" represents a linguistic use of power which should be viewed critically (Roitto & Impola, 2019.)

The discussion on the terminology provides an interesting starting point discussing doctoral education by using the ideas and concerns stemming from applied language studies. Completely sharing the views of Acatiimi (2017), FUURT (2019), and Roitto and Impola (2019), in this dissertation I have therefore chosen to use the term "doctoral researcher" throughout my work. However, I use the term "doctoral studies" to refer to the administrative entity consisting of the dissertation and other courses or requirements needed to complete the doctoral degree, whereas "doctoral work" refers to the daily practices and actions that the doctoral researchers are engaged in. Finally, I use the term "doctoral education" as an umbrella term for everything that is happening in relation to doctoral researchers, doctoral studies, and doctoral programmes. In this way I, from my part, attempt to enforce the notion that doctoral researchers are early-career researchers and not "students" who are "not ready".

Doctoral writing

In addition to learning how to "talk and walk" like academics, doctoral researchers most importantly have to learn *how to write* like academics. As described in Article I, writing is one of the most crucial actions of doctoral studies (e.g. Cotterall, 2011; Odena & Burgess, 2017; Simpson et al., 2016). Whether a doctoral researcher is doing an article-based dissertation, a monograph, or something else, without written outcomes it is impossible to graduate. As academia emphasises the significance of disseminating one's research results, writing is an important action also from an institutional perspective (Kamler, 2008).

Unfortunately, there are many supervisors who do not have interest, expertise, or confidence to provide writing support for their supervisees (Carter & Kumar, 2017; Fourie-Malherbe et al., 2016). Luckily, writing support does not solely depend on one's supervisor but instead it is often spread across institutions, being organised by language centres, for example (Kumar & Aitchison, 2018). Many universities have also aimed at supporting their postgraduate students writing skills and development by organising writing courses, support groups, and peer mentoring (see e.g. Ferguson, 2009). Different types of writing support groups help shatter writing-related myths, make the writing process clearer and more manageable (Moore, 2003; Morss & Murray, 2001; Rose & McClafferty, 2001) and provide an excellent opportunity to learn how to give and receive peer feedback (Lee & Boud, 2003; Maher et al., 2008). It

might also be easier to deal with writing anxiety, fear, or lack of motivation in a group (Ferguson, 2009). Finally, writing groups enhance doctoral candidates' researcher identity and make them feel like they are part of a scholarly community (Paré, 2017; Parker, 2009).

In 2006, Aitchison and Lee criticised both the perception and reality that writing appears to be secondary to thinking and knowledge production in the university culture. Two years later Maher and colleagues (2008) added that although universities emphasise researchers' skills in their doctoral programmes, they had not focused enough on how doctoral researchers write their theses. It would be important to do so, however, because as Maher et al. (2008) have concluded, writing groups are not merely about writing one's thesis but also about *becoming* and *being a writer*. Thus, textual work is simultaneously identity work, and writing is discursive social action (see also Huhtala, 2014; Lassig et al., 2013). For this reason, I would argue that writing is also ultimately about becoming and being *a researcher* (see also Weatherall, 2019). Writing *is* thinking (McEnerney, 2014), which is why it should not be overlooked.

The importance of writing and its development is most likely why different types of support structures for doctoral writing have continued to be studied. For example, Kumar and Aitchison (2018) explored peer-led writing groups. According to their results, peer-facilitated writing groups clearly increased writing expertise and confidence. The participants reported the groups being extremely useful. Similar, positive results have been reported by Guerin et al. (2013), Johnson (2014) and Maher et al. (2013), who explored cross-disciplinary writing groups. For instance, according to Maher and colleagues, group participation contributed to "vibrant, intellectual community" (p. 193) among doctoral researchers, and resulted in an increase in both degree completion and scholarly productivity. This body of literature is in line with the idea of peer learning and communities of practice, explored also in the previous sub-chapter: supervisor do not need to be responsible for their supervisees writing training alone, distributing the responsibility of research development to a wider network (see also Boud & Lee, 2005; Lea & Nicoll, 2002).

Another trend that can be seen in the discussion around doctoral writing is the increasing focus on the psychological aspects of it. In the early 2000s the researchers were mainly interested in what was happening when the doctoral researchers were already at the centre of the action—such as participating in a writing group. Recently, however, there has been more and more attention drawn towards what facilitates or inhibits the writing action (Article I). How to make oneself write? How to organise time for writing? Where to write? With whom to write? Sword et al. (2018) opened a discussion on the *frustration* that was involved in academic writing. While they discussed all academic writers instead of merely doctoral researchers, there are some reported differences in the writing perceptions of doctoral and postdoctoral researchers, the first group including more "struggler writers" than the latter, which is explained by the amount of writing experience (Sala-Burbaré et al., 2018; see also Castelló et al., 2017). Social media enhances this discussion to an increasing extent. Therefore, it

is not only research that can address and have an impact on these issues but also blogs, Twitter threads, and other social media platforms (see e.g. Cayley, 2020; Guerin et al., 2020; Thomson, 2020). Although these outlets are not perhaps considered "academically valid" by some due to lack of peer review, in this context these *Conversations* should not be ignored; different tips and tricks acquired from social media might offer similar type of informal support for doctoral candidates as peer-mentoring, for example. However, this is yet to be determined by research.

In the light of this literature it might first seem that the writing development and support for doctoral researchers is strong and sufficient. While most researchers would most definitely agree, it may not bear any resemblance in what is *actually* happening within the universities (see Nokkala et al., forthcoming). In doctoral curricula, for instance, writing courses are typically given a very little space amongst mandatory credits, if at all. The situation is gradually changing, however, as universities are more and more likely to offer support for writing (Kumar & Aitchison, 2018). Nevertheless, even in Finland, where doctoral education has gone through a major reform within the past ten years (Kivistö et al., 2017), many writing support structures are still department or faculty-specific, which might put doctoral researchers within the same university in a very unequal position (see e.g. Aarnikoivu et al., forthcoming; Chapter 6). Combined with socialisation challenges and lack of support addressed above, it is not surprising that some doctoral researchers decide to walk out the university door without ever looking back.

Internationalisation and doctoral mobility

Going back to the Bologna Process, discussed in Chapter 3.1, it has driven European universities to pursue a range of different types of internationalisation activities that universities engage in, such as research collaborations and promoting both student and staff mobility (Seeber et al., 2018). While academics have always been a fairly mobile group of professionals, since 1980s mobility has also been advanced on a policy-level, rather than solely by personal motivation (Zgaga, 2018). Although many obstacles for mobility have been removed in Europe, some still remain. For example, the direction of mobility is still asymmetric, the direction being from peripheral countries to Western and Northern Europe due to the lack of funding opportunities in the first, for example (Zgaga, 2018). Or, on a global scale, flow from China, India, and South Korea is typically towards the US, the UK, Germany, and France—not the other way around (Shen et al., 2016). Moreover, as Ziguras and McBurnie (2015) have pointed out, both recruitment and retention of international students is often connected to economic and competitive interests of a continent, nation, or an institution (see also Article IV).

Although internationalisation activities are regulated on a national and institutional level, these activities are largely based on individuals' efforts (see Articles II, III, and IV), however. As Balaban (2018) noted, doctoral researchers'

mobility goals might have been achieved on an institutional level but it creates individuals who do not have a home (geographically). This kind of "mobility as homelessness" (Balaban, 2018, p. 30) affects one's personal life and long-term geographical stability (see also Article III). Balaban's (2018) results challenge the discourse which frames mobility in a way that adaptability, flexibility, and lack of commitment to any country are something undeniably positive or desirable for early-career researchers (Balaban, 2018).

Nowadays, the UK, the US, Australia, Germany, and France are the most popular host countries for international doctoral researchers, and China is the most popular country of origin (Shen et al., 2016). After adding doctoral education to the Bologna Process in 2003, doctoral mobility became even more important to the EU (Zgaga, 2018). However, EU enlargement and free movement did not have the desired impact: early-career researchers did not become as mobile as they were expected to (Guth, 2008). Here, the financial prospects of mobility play an important role, which, for example, makes the UK a less desirable destination for many from Eastern Europe (Guth, 2008).

The way international doctoral researchers are discussed in much of the literature is problematic, as discussed in Chapter 3.2.1: In addition to them being clumped together as a homogenous mass, they are often also expected to adapt to the Western ideas of learning, making it a one-way learning process (Ryan, 2012). Sometimes, this process is coated with outright ignorance on international doctoral researchers' backgrounds (see also Singh, 2009). But, as Ryan (2012) argued, in the context of teaching and learning, the doctoral stage would be ideal for exchanging both cultural and intellectual ideas, as well as for developing new epistemologies. As Shen et al. (2016) describe, international doctoral researchers function as "the nodes" which connect different countries and have a great impact on the higher education development in their home and host countries.

Going back to the wider context, internationalisation of higher education has recently faced a series of new challenges. Mathies and Weimer (2018) asked what type of consequences the current discourses of nationalism, anti-immigration, and anti-globalisation will have on all international student mobility. The turning point can be considered to be 2016; the Brexit vote and the election of Donald Trump (Courtois et al., 2018; Courtois & Veiga, 2020; Mathies & Weimer, 2018; Stubb, A., 2019), which not only have had a wide impact on the US and the UK but also the rest of the world. Similar right-wing movement is on the rise in many European countries, which makes them less attractive to study in (Mathies & Weimer, 2018). Moreover, those who still choose to be mobile and become immigrants in another country, risk the chance to become discriminated and treated like an outsider (Mathies & Weimer, 2018).

The most recent challenge for internationalisation of higher education is COVID-19 (Garcia, 2020; Lorber & Prem, 2020; Montgomery, 2020). Although scholarly research on the long-term consequences of the pandemic will not be available until later, it is likely that some higher education institutions will have to be closed, existing inequalities become exacerbated, hiring of new staff will become more difficult, funding will be primarily targeted at life sciences over

other fields (Altbach & de Wit, 2020), and international student market will become "a buyer's market", which will be more vulnerable and more competitive (Marginson, 2020). According to Marginson (2020), it might take as long as five years for the international student numbers to go back to where they were in 2019. Whether this is an under- or overestimation remains to be seen.

3.2.4 The missing link?

When making preliminary observations for my study in 2015, I knew very little about how doctoral education had already been studied. Gradually, the bigger picture of the literature began to form. Above I have introduced the different bodies of doctoral education literature by connecting them to the three aspects of social action: historical bodies, interaction orders, and discourses in place.

However, as I have already discussed earlier in this work, these aspects—and hence also the bodies of literature—should not be treated as separate entities but rather as interconnected and supporting each other. When following Scollon and Scollon's idea of how social action is formed (2004, p. 20), doctoral education could be placed into the following diagram:

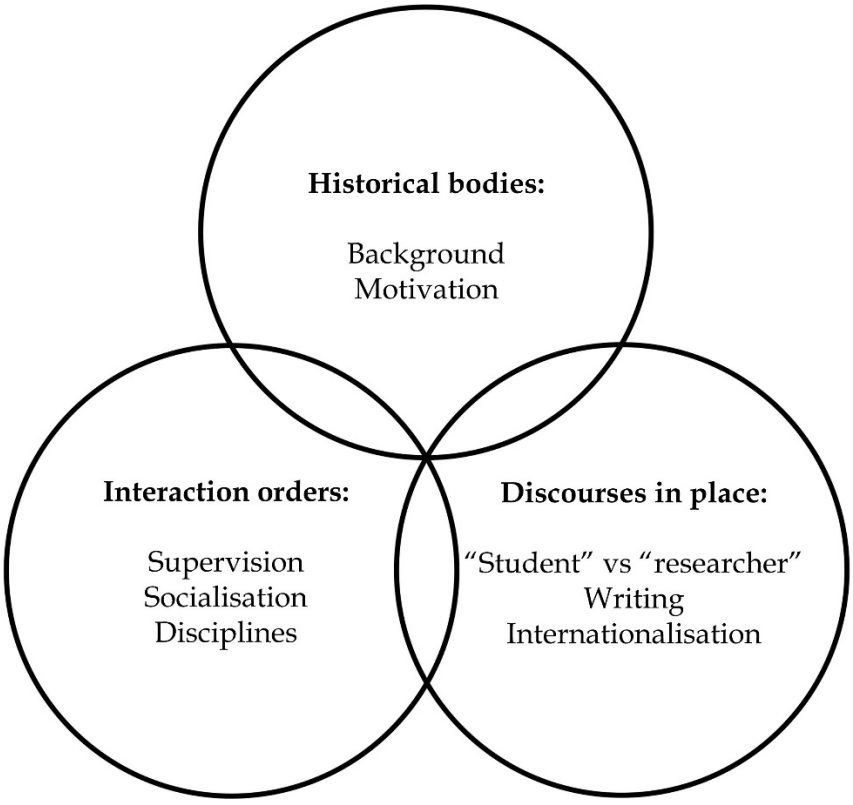

FIGURE 2 The nexus of doctoral education

The diagram illustrates how different facets of doctoral education come together to form an interconnected *nexus.* The point of interest of nexus analysis, and the present work is in the middle of the diagram, at the point where historical bodies, interaction orders, and discourses in place come together.

Considering that many of the studies I presented above in chapters 3.2.1, 3.2.2, and 3.2.3 are explicitly addressing two or more bodies of literature (such as supervision *and* international doctoral researchers), it is surprising that models or theories that would try to connect the dots and tap onto what is in the centre of the diagram barely exist. While some respectable attempts to create holistic models of doctoral education have been made (see Cumming, 2010; Holdaway, 1996; McAlpine & Norton, 2006; Thorlakson, 2005), the challenges within doctoral education have seemed to persist in the same way that many other "wicked problems" (Rittel & Webber, 1973) do.

I do not argue that individual studies focusing on different aspects of doctoral education should be discarded. Quite the opposite—all these studies mentioned in this chapter are needed to increase understanding of the complex realities in which doctoral researchers are doing their work, whether it is in traditional university settings, at distance, or in some other way. However, I argue that producing descriptive studies on individual facets of doctoral education one after the other, addressing and explaining different challenges is not enough. We also need to find viable ways to *act on* those challenges by testing qualitative modes of inquiries which include the component of research-based intervention. In this way researchers have an opportunity to facilitate *actual* change in the settings they are involved in. I will now move on to demonstrate how this can be done by following and applying three practical stages of nexus analysis: engaging, navigating, and changing the nexus of practice.

4 ENGAGING THE NEXUS OF PRACTICE

> Whatever issue you study, you will become deeply involved with it. The first place to look for that issue is in your own life, your own actions, and your own value system. What do you wish somebody would do something about? What do you think about to be changed in the world in which you regularly live? What gets you upset when you see the news or hear what is going on in your city or country or the world? (Scollon & Scollon, 2004, p. 154.)

The above quote illustrates the starting point of a nexus analysis. What do I think is not quite right as it is? What do I want to change? While there are many such issues, I chose to focus on something about *the world in which I regularly lived:* working alongside young, promising master's students and doctoral researchers who were incredibly smart and hard-working, and showed immense potential to become what academia needs in the future. However, this promising group of people was constantly struggling with a lack of appreciation towards their work combined with—or resulting in—short, consecutive employment contracts, which in turn meant future uncertainty. As many of them were also at a stage of life where they wanted to start a family and buy a house, the reality they were living in simply seemed unjust to me.

These observations prior to my doctoral studies could be described by something that Becker (2014) calls "reasoning from analogy" (pp. 40–60). It refers to a process of one witnessing two or more different types of cases, events, or phenomena which bear similarities to one another. However, although there are similarities, they do not confirm anything, at least anything that is possible to argue in terms of research-based evidence. But what they do suggest is a likely *starting point* for a research project—such as a dissertation.

In the previous chapter I discussed the previous literature on doctoral education, and what I concluded still to be missing. To explore the missing link, and to empirically study and analyse how different aspects of doctoral education as a form of social action were connected, I chose to generate data by doing insider ethnography (Aarnikoivu, 2016; Alvesson, 2003; O'Reilly, 2009) in two distinct settings: CERN (the European Organization for Nuclear Research;

Chapter 4.1) and CALS (the Centre for Applied Language Studies, University of Jyväskylä (JyU), Finland; Chapter 4.2) between July 2015 and May 2017. Next, I will present in detail the practical steps of engaging the nexus of practice: how I gained access (Harrington, 2003; O'Reilly, 2009) to each of the two settings, recruited the participants, and generated data (Garnham, 2008). To conclude this chapter, I will discuss and reflect the methodological choices that were involved in the research process (Chapter 4.3).

4.1 CERN

The first of the observed groups of participants consisted of eight doctoral researchers in STEM fields working at CERN, an internationally known particle physics research facility on the border on France and Switzerland. As also described in Article III, CERN was founded in 1954 to function as the main laboratory for the European Council for Nuclear Research. Its main site is located in Meyrin (next to Geneva). The CERN scientists study the fundamental constituents of matter and the forces acting between these constituents. The research facility is best known for the Large Hadron Collider (LHC) and the experiments related to it, although CERN also hosts a number of non-LHC experiments. CERN employs around 2,500 people but the number of affiliated scientists is 12,000, representing over 100 nationalities and 70 different countries. (CERN, 2019).

Being primarily a research centre, CERN does not grant any degrees. This means that most doctoral researchers working in its facilities are not employed by CERN but instead they are "Associated Members of Personnel". To be able to work at CERN, they need to be registered as a doctoral student at a university for the entire time they are at CERN. However, their funding might come from various sources: either from their home university as a salary or grant, or from national scholarship programmes. Their tasks and obligations depend on the group or section they work in, making doctoral researchers at CERN a highly versatile group. (CERN, 2019).

In early 2015 I moved to the greater Geneva area. During the spring of 2015 I also began planning to do a PhD on early-career academics, and later that year, in September 2015 I officially began my doctoral work. Earlier that year I had already gained access to CERN by joining the CERN board games club, which is also welcoming gamers from outside CERN. During the Sunday gaming sessions, I got acquainted with several doctoral researchers working at CERN. By snowball sampling I recruited eight doctoral researchers who were willing to participate in my study. It was not a difficult process, as all of them were more than happy to let me interview and observe them for the next 18 months—from July 2015 to December 2016.

Six of the participants were doctoral researchers in physics and the remaining two in engineering. At the time of the data generation the participants were between 26 and 32 years of age. They came from eight different European

countries (EU/EEA) and were officially doing their studies in a university in their country of origin. Only one of the participants was "an international doctoral researcher", doing their doctorate outside of their country of origin. Two of the participants were at the beginning stage of their studies, three in the middle, and three at the end, although this changed within the data generation period as the participants advanced in their studies. Seven of the participants were full-time doctoral researchers, one was doing their dissertation part-time. One of the participants was married, one was single, and the remaining six were in a relationship at least at some point within the eighteen-month data generation period. Only one participant had children. The family members of these doctoral researchers also form an important group of social actors, which will be specifically discussed in Article III.

All the communication with the participants was in English, which was a foreign language for everyone else except for one participant, who was a native speaker of English. However, everyone used English in their daily work and could be considered to be fluent in it. The participant information is summarised in Table 2 below:

TABLE 2 CERN participants

The number of participants	**The countries of origin**	**Field of study**	**Status at CERN**	**Full time / part-time studies**	**Age of the participants**	**Stage of studies**
8	8 different EU/EEA countries	Physics, engineering	7 working at CERN, 1 affiliated with CERN	7 full-time, 1 part-time	Between 26 and 32	Start: 2 Middle: 3 End: 3

During the first months of data generation I conducted a semi-structured interview (Ayres, 2012; Kvale, 2007) with each participant, asking about three themes: their background, their current situation, and future perceptions. The interviews lasted between 25 and 80 minutes and they were recorded and transcribed. The later data was based on the analysis of these interviews. With one participant we did not manage to schedule a face-to-face interview before they left CERN. However, many of the questions were covered during my fieldwork, which is why I requested them to answer to the remaining questions in written form after they had left.

In Chapter 2.2 I covered the basic concepts of nexus analysis, including the three stages of the research process. As explained, engaging the nexus of practice involves establishing the *zone of identification* and mapping out the relevant *social actions*, *social actors*, *places*, *events*, *objects*, *tools*, and *discourses in place* that are

potentially relevant for doing doctoral studies. At CERN, this stage lasted from July to October, although there cannot be a clear-cut division made between the engagement and navigation stages. The identified, relevant aspects of the studied nexus of practice are listed below in Table 3.

TABLE 3 Different aspects of the studied nexus of practice

Social actions	Office work (sending emails, designing equipment, coding, analysing data); experiment hall work (building, wiring, maintenance); laboratory work (with smaller equipment, testing); training activities (fire training, harness training, confined spaces training); research-related activities (writing analysis notes, abstracts, or thesis, attending / presenting at conferences or meetings); social activities (lunch and coffee breaks, free time activities)
Social actors	Doctoral researchers; supervisors; research groups; other colleagues; the CERN community; the physics community; family; friends; CERN /university administration
Sites of engagement	Observed: Offices; experiment halls; conference rooms; laboratories; cafeterias; CERN-sites as a whole; the announcement of gravitation waves (broadcasted live to the CERN auditorium) References to: school/university; different cities; countries; Europe
Tools / objects	Different equipment related to the experiments; computers and different software; video conferencing technology
Discourses in place	Academic discourse; CERN discourse; physics discourse; expatriate discourse

This was followed by another twelve months of data generation, which then comprised the second stage of nexus analysis, the navigation. However, to keep the data generation process coherent, I will explain it in its entirety in this chapter, and leave only the results of the analysis for Chapter 5, *Navigating the nexus of practice*.

As I was a part-time doctoral researcher from September 2015 to April 2016, at the beginning I could not spend all my days observing the participants. However, as my full-time job at the time allowed me to work physically anywhere I wanted, I often spent my days at CERN, working either in one of the cafeterias of the CERN main site or in an office that two of the participants shared. Occasionally some of their colleagues were sharing the office space as well. I asked if it would be alright for me to work there too, and the colleagues did not mind; only if we ran out of chairs and table space I then went and worked somewhere else. This, however, only happened twice during the eighteen months.

Working physically at CERN gave me a great deal of flexibility in terms of fieldwork. For example, if something interesting was happening to one of the participants, I was able to stop my other work for a moment, observe them, ask them questions, and then make quick fieldnotes, which I could then complete later in the evening. As I also wanted to have normal lunch and coffee breaks, I could spend them with my participants and thus observe their daily routines in

that way as well. In this sense my fieldwork practices did not crucially change after becoming a full-time doctoral researcher in May 2016. The only difference was that after that I was able to spend a larger amount of my work day generating data.

In the end, the CERN data consisted of 74 fieldnote entries (Condell, 2008; Wolfinger, 2002) between July 19th, 2015 and January 12th, 2017. 'An entry' refers to notes from one specific day, which might include one or many of the following type of notes: 1) notes on follow-up interviews, 2) notes on informal discussions with the participants, 3) fieldnotes written during and outside participants' working hours and 4) reflections on my own work. The total number of these entries in word-pages was 28 (~13 000 words).

TABLE 4 Data summary: CERN (adapted from Article III)

CERN main data	7 audio-recorded interviews (25–80 min, 359 min in total) and 1 written interview
	2 audio recordings from a group meeting of 1 participant (29 and 69 minutes)
	Fieldwork journal consisting of 74 entries between 19th of July, 2015 and January 12th, 2017 and including: 1) notes on follow-up interviews, 2) notes on informal discussions with the participants, 3) fieldnotes written during and outside participants' working hours on their life and work and life at CERN in general, and 4) reflections on my own work.
CERN secondary data	360 photos. To ensure the anonymity of the participants, these photos were not used for analysis purposes. I took them during my field work, in case I would not be able to go back to CERN after finishing the data generation. However, this turned out not to be the case, as I have been able to return to CERN after the data generation as well.

Most of the participants worked in different experiments or departments; only two of them worked in the same group. This is why I could not observe all of them an equal amount of time. It would have also been impossible to observe all of them on daily basis. Three of the participants I was able to observe and interview weekly, sometimes even daily. Three of the participants I was able to interview and observe 5–10 times during 18 months and two of the participants I only interviewed once and had only a few fieldnote entries on. However, I think it was a good idea to have eight participants instead of just three or five, as the interviews I had with each one of them at the beginning of my fieldwork were of great value in determining the course of the data generation.

4.2 CALS

The second data set I collected at the Centre for Applied Language Studies (CALS) at University of Jyväskylä, Finland. As also explained in Article I, CALS was founded in 1974, originally as a language centre for higher education institutions. As of 1996 it has been part of the University of Jyväskylä's Faculty of Humanities (now Faculty of Humanities and Social Sciences). The centre is specialised in examining the aims, practices, and policies of language education, its main foci being language evaluation, language development in different contexts, and language policies. There are approximately 50 doctoral researchers at CALS in total, although only about a fourth of them are working full-time. The doctoral funding either comes from the university (staff position or grant) or from an external foundation (grant). The ones that are part-time researchers usually do their studies alongside their work, such as teaching. There is also a significant amount of distance doctoral researchers at CALS. It is partly explained by the number of part-time doctoral researchers but also by the increasing number of international doctoral researchers, who seek to study at CALS due to its special, national mission on language policy.

Doing ethnography at CALS differed from CERN in many ways. The first was in terms of gaining access: While at CERN I accessed the community through a hobby (board gaming) and befriending the community members, at CALS I was mainly a doctoral researcher peer. Although I befriended some of the doctoral researchers during my studies, recruiting individual participants was slightly more difficult, as I did not know any of them well at the start of my data generation, in January 2016. The second difference was in terms of the type of ethnography. I was not physically present at CALS until February 2017. As I was generating data at CERN until December 2016, I thus had to choose between different options: 1) to only generate data at CERN, 2) to first generate data at CERN, then at CALS, or 3) to conduct the CALS ethnography partly as a remote ethnography (Postill, 2017). In making the decision, I considered the following issues: First, I wanted to study doctoral researchers from more than one or two fields, and CALS allowed me to bring contrast to the CERN data. Second, I knew that to complete an article-based dissertation, the data would have to be collected relatively early in one's studies. This is why I thought doing two consecutive ethnographies, even if they had only been one year per setting, would have taken too much time. Third, as a distance doctoral researcher I was interested in trying out remote ethnography. Luckily, CALS provided an excellent opportunity for this, as it had many distance students and was offering most of its doctoral events online.

Doing ethnography at CALS can thus be divided into two separate parts: remote ethnography between November 2015 and January 2017 (15 months) and conventional ethnography between February 2017 and April 2017 (3 months)—a total of 18 months. The first part consisted of conducting written interviews and observing events online. For the interviews I attempted to recruit as many CALS

doctoral researchers as possible. However, sending several email requests did not result in more than three doctoral researchers contacting me. My previous experiences at CERN made me decide that three participants could be enough, especially as I was planning to interview three supervisors as well. The interview questions were rather similar to the ones I had for the CERN participants. As I had no experience on doing online interviews at the time and could not interview the participants face-to-face, I decided to try how a written interview would work. I sent the interview questions and an informed consent form to all the participants. I did not give them a deadline but everyone returned their answers without further requests within a month. Despite of receiving elaborate responses, however, I decided that the later follow-up interview would have to be face-to-face, so that I could probe answers, and clarify or ask for additional information if needed.

Because I had already begun my data generation at CERN prior to starting it at CALS, there is not an equally clear-cut division between the stages of engaging and navigating the nexus of practice at CALS. However, me becoming a doctoral researcher at the department and recruiting the participants can be considered to be part of the engaging stage. After that, the navigation stage happened first remotely, then later when I was physically in the department.

TABLE 5 Doctoral studies as a nexus of practice

Social actions	Office work (sending emails, writing articles or a monograph, analysing data); attending courses (research ethics, library courses); other research-related activities (organising / attending / presenting at conferences or meetings; participating in the writing clinic or writing retreats); social activities (lunch and coffee breaks, free time activities)
Social actors	Doctoral researchers; supervisors; people in the same project; other colleagues; the CALS community; the linguist community; family; friends; university administration, national-level administration, funders
Sites of engagement	Observed: the department, the university References to: school/university; different cities; countries; Europe, outside of Europe
Tools / objects	Computers, video-conference equipment (projector, audio), headphones, microphone
Discourses in place	Academic discourse; linguist discourse; university-specific discourse; CALS-discourse

For the second part of the remote ethnography I sent another email, asking for permission to observe all CALS events. I sent the email to the entire department, asking that only if someone did *not* want to be observed, they would need to let me know. After having sent this email at the start of each semester (January 2016, September 2016 and January 2017), only two doctoral researchers told me they would prefer not to be observed. This caused no problems, however, as these students did not attend most of the events that I observed. During the remote

observation period, I observed eight writing clinics (Article I) and three doctoral seminars (for CALS doctoral researchers). Writing clinics were writing meetings or workshops organised especially for CALS doctoral researchers, usually either discussing a more general topic related to writing or writing practices or discussing and giving feedback on a piece of text sent by a doctoral researcher, something they were working on at the moment. The clinic meetings were organised approximately every three weeks at CALS but there was also an option to participate remotely through AdobeConnect, a video conferencing software. The same option was used for the doctoral seminars that I observed. The doctoral seminars were organised 1–2 times a year.

After the remote ethnography I was also able to physically work at CALS for the final three months of the data generation. I was provided a work station in an open office where I usually worked from Monday to Friday during normal office hours, having occasional meetings elsewhere in the campus area. During this time period I interviewed two of the same students that I had interviewed before in writing. One of the doctoral researchers I had interviewed before was a distance student so instead I interviewed an additional student, who meanwhile had expressed their interest to become a participant as well, combining the questions of the earlier written interview and the follow-up interview into one. Thus, I also had three face-to-face interviews (one with each participant) in addition to the three written interviews.

Based on my previous observations and interviews I also wanted to include supervisors in my data, which is why I decided to interviewed three supervisors. At CALS this was more logical in terms of insider ethnography, as I also knew the supervisors, whereas at CERN I did not (on insider/outsider positionality, see Chapter 5.6.1). All the interviews were recorded and transcribed. No further information will be revealed on any of these participants as CALS is quite a small department and revealing any information on the participants would risk their anonymity.

During my time at CALS in spring 2017 I also observed five more writing clinics, making the total number of observed clinic meetings 13. I had three different roles in these meetings: in three I was a presenter, in the remaining ten I was a participant-observer (Crang & Cook, 2007). Finally, in April 2017 I decided to collect survey data regarding the writing clinics for the purposes of Article I. The survey had eight questions and 30 people responded to it. The respondents were doctoral researchers, supervisors, and other CALS researchers. The data generation at CALS ended in May 2017.

As I was analysing the generated data later in 2017, I also decided to examine official university documents and reports discussing doctoral education in addition to three events organised for all doctoral researchers of the University of Jyväskylä. This additional data was combined with some existing CALS data and their analysis resulted in Article II, presented in Chapter 5.2.

The data collected at CALS and JyU is summarised below in Table 6:

TABLE 6 Data summary: CALS

<table>
<tr><th>Remote ethnography (15 months)</th><th>Physical ethnography (3 months)</th><th>Additional data (added after May 2017)</th></tr>
<tr><td rowspan="2">3 written interviews</td><td>3 interviews with doctoral researchers (226 minutes in total)
3 interviews with supervisors (198 minutes in total)</td><td rowspan="3">(1) Official university documents (freely available online): Degree regulations of the University of Jyväskylä (in Finnish and English), 24 pages, valid since August 1st, 2015.
(2) Reports (freely available online): Evaluation of doctoral training at the University of Jyväskylä: full report (in Finnish) and summary (in Finnish and English).
(3) Events: Video recordings (freely available online), power point slides, and fieldnotes: a) “Introduction to doctoral studies”, May 2015, b) “Future of Doctoral Education”, May 2016, and c) “Graduate School information session”, November 2016.</td></tr>
<tr><td>Survey data regarding the writing clinics, 30 respondents</td></tr>
<tr><td colspan="2">Fieldwork journal (36 Word pages consisting of 35 entries between 9th of November, 2015 and 3rd of May, 2017) which includes:
1) notes made during writing clinics and doctoral seminars, including AdobeConnect chat-discussions
2) reflections on my own work and working at CALS
3) observations made while working physically at CALS</td></tr>
</table>

4.3 Making choices in data generation

When starting any study, the researcher has to carefully consider which would be the best way to generate data that addresses their focal topic. As can be seen from Tables 4 and 6, the two main datasets I collected at CERN and CALS for this nexus analysis are very different from each other. However, my purpose was not to generate identical datasets at any point. As the ways in which the doctoral researchers did their research in these two distinct settings were different, it was only normal that also the observed actions, events, and actors were different. In other words, what is relevant in some settings might not be relevant in others.

In ethnographic data generation there are some practical limitations, such as available resources, that the analyst has to take into account. In a perfect world, for a nexus analysis on doctoral education in the European context it would be best to collect data in different doctoral researcher communities in several European countries and different faculties. However, this would not possible without a large research team or a generous amount of funding and time. As none of these are usually something full-time doctoral researchers have, I had to make use of the settings I had the best (potential) access to. In 2015, the best access

I had was to CERN. As I was already living in the area, choosing CERN as one of the data generation sites meant I would not have to move and that I could begin my data generation already as a part-time doctoral researcher.

CERN's role as a space for doing doctoral studies is extremely unique, however. It is a research centre which does not grant degrees and does not offer any formal education for doctoral researchers as universities do. This uniqueness made me question whether choosing to do ethnography there would end up being a limitation for my study. In the end I decided that the uniqueness would, in fact, have a high potential of revealing something of interest that has not been addressed in the research literature on doctoral education so far. Even though the place of doing doctoral studies might not be the most typical one, there were related topics that I felt were worth looking into. The first one was complex mobilities of highly-skilled people (Article IV): CERN (and Geneva) is a place where people frequently come and go, moving there because of work or their partner's work, and moving away because there is no longer work, or because there is new work somewhere else. The second topic was working in a state-of-the-art research laboratory and how it affects doctoral studies. I thought that observing such setting presented a rare opportunity that not many researchers get. Finally, I argue that studying unique settings in itself is valuable for research in applied language studies and higher education: Not many ethnographic studies have been conducted at CERN, some rare examples including a dissertation (2012) and a related sub-study (2014) by cultural anthropologist Arpita Roy. In her work, Roy critically examined the process of discovery, thought, and language. Specifically, she examined the linkages of general beliefs and technical procedures of science and showed how they form a specific cultural mode of understanding the world.

After deciding to do insider ethnography at CERN, I was considering whether that would be enough for a dissertation data. While it probably would have been, the nature and focus of the current work would have turned out to be very different. To increase the understanding of doctoral education, I thus decided to include another site of study to my work. As I wanted to have some connection between CERN and the second setting, but still them to be different, I decided that the link would be in the methodology. My home department, CALS, was the only other place where I could get insider-like access immediately. Furthermore, having a contrast between STEM (science, technology, engineering, and mathematics) and HASS (humanities, arts, and social sciences) fields was something I believed could create an illuminating starting point for my research.

In terms of data generation methodologies, Scollon and Scollon (2004) designed nexus analysis to be mainly based on ethnographic methods. In this way it is possible to continuously "zoom in" and "zoom out" during data generation, depending on what the analyst finds relevant regarding their initial research questions. This is why I never considered any other options for the primary methodology. However, it would have been possible to choose a variety of methods within ethnography. I chose interviewing, and participant observation, supported by detailed fieldnotes. This combination seemed optimal,

as I did not want to bother the participants too much but instead let them focus fully on their studies and work, even during the times when I was there to observe them. Ethnography and interviews also enabled me to continuously contrast action (doing) and what participants or other social actors related to this study *reported* they were doing. Some other, more invasive options would have been to ask the participants to write a work diary (Djerasimovic, 2019) or to video record them more often. In the current data I have one short video from an experiment tour and two audio recordings from a group meeting.

Regarding in-depth interviews, Kvale (2007) described the role of the interviewer as a "miner" or a "traveller" (p. 19). Moreover, he recommended that in in-depth interviews, the responses ought to be probed. This requires the interviewer to be slightly personal: "he or she has to give something of himself or herself in order to merit an open response. Yet the conversation lists in one direction; the point is not to talk the way friends do." (p. 9). During the interviews, this is the style I attempted to follow: I asked the questions and probed the answers, but to do that I occasionally said something briefly about my own views or situation, as the participants and I were living in a very similar expatriate life at the time of the interview.

However, after conducting the initial interviews I decided not to use recordings to a great extent, as some participants were less talkative when being recorded than during our other conversations. Another reason I decided not to have more than one "formal", recorded interview based on Kvale's (2007) thoughts about studies based on interviews: "If you want to study people's behaviour and their interaction with their environment, the observations and informal conversations of field studies will usually give more valid knowledge than merely asking subjects about their behaviour. If the research topic concerns more implicit meanings and tacit understandings, like the taken-for-granted assumptions of a group or a culture, then participant observation and field studies of actual behaviour supplemented by informal interviews may give more valid information." (p. 18).

At CALS I had to be more creative, as my role as an insider was different than at CERN, and my opportunities to do traditional ethnography were weaker. To be able to do both ethnographies simultaneously, at least some of the time, I decided to do remote ethnography at CALS (Postill, 2017). Before the time of the internet, remote ethnography was done mainly due to war or natural disasters (Postill, 2017). However, today's technology has enabled ethnographers to be increasingly flexible with how they collect data. Postill (2017) argues that it is possible for an ethnographer to gain valuable insights from moments that they never experienced live. However, one has to face two challenges: the fear of "missing out" and the anthropological aversion to descriptions that do not contain enough detail. While the fear of missing out was also present for me while generating data at CALS, I decided that it would be important to generate data as a distance doctoral researcher, as it could potentially provide a valuable insight regarding other distance doctoral researchers, as it quickly turned out.

As CALS was consistently organising events for their doctoral researchers, accessible also at distance, I decided to test the utility of remote ethnography. The most regular event was the writing clinic but there were also doctoral seminars once or twice a year. As participating in both of these was quite popular online as well, I decided that it would be quite important to get a distant doctoral researcher perspective included in the data as well. These observations and data became to form Article I. Later, during the second part of my CALS ethnography, I was able to collect more data in the department. Unlike at CERN, I now wanted to interview supervisors as well, as I felt I could gain important insight from them as well. Although the interview data of the supervisors did not result in a sub-study—at least in this dissertation—, talking to the supervisors helped me understand the "other side" of the supervision, about which I had so far only learned from doctoral researchers.

In this chapter I have discussed the first stage of nexus analysis, engaging the nexus of practice. Based on the preliminary observations I made in terms of historical bodies, interaction order, and discourses in place, I directed my data generation and began formulating the more specified research questions that resulted in me focusing on hybrid doctoral seminars (Article I), international doctoral researchers (Article II), spatiotemporal dimension of doctoral education (Article IV), and the bigger picture of highly-skilled mobility and migration (Article IV). The specifics of each of these four sub-studies will be discussed in the following chapter.

5 NAVIGATING THE NEXUS OF PRACTICE

The second stage of nexus analysis, *navigating the nexus of practice*, forms the main body of the analysis process. By taking into account the observations made in the engagement stage, I zoomed in and out of single, specific actions, actors, places, events, and objects to map out and better understand their connections to each other but also the wider, topic. From this viewpoint, nexus analysis presents a highly flexible mode of inquiry. There is a price to be paid for this, however. The flexibility means that there is a near-infinite amount of options and strategies one could utilise when navigating in the studied nexus of practice. All of the sub-studies included in this dissertation came to exist in different ways. All of them were also implemented differently. However, all of them taught me something about how nexus analysis can potentially be done and what it might reveal about a specific topic. The sub-studies—the studied group, theme, concepts, and the way to do nexus analysis—are summarised in Table 7:

TABLE 7 Summary of the sub-studies

	Sub-study I	**Sub-study II**	**Sub-study III**	**Sub-study IV**
Studied group	Doctoral researchers of applied language studies at the University of Jyväskylä	International doctoral studies / researchers at the University of Jyväskylä	Doctoral researchers of STEM fields at CERN	Migrants (various groups, including doctoral researchers at CERN)
Theme	Hybrid doctoral seminars and doctoral writing	Nexus analysis as a methodology when studying international doctoral researchers	A holistic model of doctoral education: the spatiotemporal dimension of doctoral education	Explaining the difference between policy-based evidence and evidence-based policy in the context of migration
Main concepts	Interaction order	Introducing all the core concepts of nexus analysis	All the core concepts of nexus analysis (Scollon & Scollon, 2004); scales (Blommaert, 2007; Blommaert et al., 2015)	Policy-based evidence (PBE); evidence-based policy (EBP)
Secondary concepts	Historical body, discourses in place	Otherness (Benzie, 2010)	-	All the core concepts of nexus analysis
Way to do nexus analysis	Focus on one type of event (a writing seminar) and action (writing)	Demonstrating how to do nexus analysis in a specific context (a Finnish university)	Combining nexus analysis with the concept of 'scales' to re-theorise specific social practice (doing doctoral studies)	Looking across four disciplines and four studies, using a nexus analysis-based approach to illuminate the "bigger picture" of complex mobilities.

In this chapter I will explain the starting point for each article, what the main findings or conclusions were, and how I applied the nexus analytical mode of inquiry within each of them. Moreover, I will discuss what each of these articles taught me about nexus analysis and address the limitations of the approach regarding each paper. Finally, in Chapter 5.5 I will deliberate some of the ethical considerations related to the present study as a whole.

5.1 Sub-study I

The first sub-study (see Article I) of this dissertation discusses disruptions of hybrid doctoral seminars. By a hybrid seminar, we refer to a seminar where there are participants both physically in the seminar room and at distance, participating with the help of a video-conferencing software, which in our study was AdobeConnect. Generally, seminar work is one of the most common forms of doctoral studies which happens alongside writing the dissertation. However, not all students are able to participate in them on campus. At CALS, the context of this particular study, for example, the majority of doctoral researchers are doing their research work either part-time while working elsewhere or full-time but living outside of Jyväskylä, including myself. As different forms of distance education are becoming more and more common, research on these settings where it is being taken into use is needed.

Background

The idea for this study was formed during engaging the nexus of practice at CALS (see Chapter 4.2). As I was generating data by doing remote ethnography, I began paying attention to how writing clinics—regular writing workshops for doctoral researchers—were organised. While initially I had thought how great it was that the department was offering a distance participation option by default, I quickly realised that the technology that was being used during the clinics had a significant impact on the interaction order of the clinic: there were several *disruptions* taking place during the clinic meetings, often having negative effect on the participation. Moreover, I had observed that writing was a significant *action* the doctoral researchers of CALS were engaged in on daily basis, which made these writing meetings particularly relevant *events* regarding doctoral studies as a social practice. Motivated by these preliminary observations I decided to generate data during all the clinic meetings that were to take place during the next eighteen months, and finally suggest conducting this study together with my supervisor.

Literature

The background literature utilised in the study consisted of earlier research on online and technology mediated teaching and learning in higher education settings (see Allen et al., 2002; Candela et al., 2009; Candarli & Yuksel, 2012; Doggett, 2008; Gillies, 2008; Zhao et al., 2005). There were only a few studies to be found in hybrid seminars or study programmes for doctoral researchers specifically (see Henriksen et al., 2014; Roseth et al., 2013). Another body of literature that we used consisted of studies conducted on doctoral writing, which is considered to be one of the most significant actions of doctoral studies (Cotterall, 2011; Ferguson, 2009; Kamler & Thomson, 2006; see also Chapter 3.2.3). Despite well-researched recommendations, however, many programmes do not reflect this clear need. In Finland, the situation is currently changing as doctoral programmes are becoming more structured as a result of the Bologna process (Zheng & Aarnikoivu, forthcoming). For example, Delyser (2003), Kamler (2008), and Piattoeva (2016) have argued that doctoral researchers are not provided with a sufficient amount of reporting and presenting their research results. This is also in stark contrast with current "publish or perish" (Bothello & Roulet, 2019; McGrail et al., 2006; Pickering et al., 2015) discourse of academia. It should be noted, however, that inadequate presentation skills do not concern professional doctorates or those who plan to continue on a non-academic career path after acquiring their doctorate.

While familiarising ourselves with the literature, we noticed that most studies focus on the action of writing when the social actors are already at the centre of the action in focus. What we were interested in, however, were the constraints of such action. This is why we decided to examine the causes and consequences of the disruptions there were in the writing clinics. Our research questions were the following:

1. Which factors caused disruptions for the expected interaction order during the writing clinics?
2. What consequences did the disruptions have?

Theoretical concepts and data

The main theoretical concepts of our analysis were *interaction order* and *mediated discourse analysis*. Within the scope of one article we could not discuss historical bodies and discourses in place to the same extent as interaction order but we did use them as secondary concepts when reporting the findings.

As data we used fieldnotes I generated during the writing clinics (N=13) and the AdobeConnect chat discussions that took place during the clinics. We also analysed Yammer discussions: before each meeting there was material shared on Yammer, and occasionally some discussion taking place related to the material or meeting. Finally, we decided to create an online survey for all the

doctoral researchers and supervisors of CALS, specifically encouraging those who were not regular participants to respond.

Results

Our analysis revealed three categories that the disruptions of the writing clinics were related to: technology, actors, and language. The first, *technology*, was related to issues with audio, microphones, video, or computers, which did not work properly during the clinic meetings. The second, *actors*, included the following issues: the lack of participants (due to tight personal schedules), perceived irrelevance of the clinic topic regarding one's own research, and technology-related problems whose cause was a person, not the technology itself (not knowing how AdobeConnect works, for example). The third category, *language*, concerned the languages that were used in the clinic meetings. Some respondents of the survey reported they were not comfortable with participating in their non-native language, whereas others thought one should be able to discuss their research in English, for example. Moreover, some international doctoral researchers did not participate in the meetings when the presenter's work was in Finnish. The consequences of the disruptions were also diverse: the disruptions resulted in less time being dedicated to the actual content, made participation either more difficult—or impossible—, and affected negatively on the participation satisfaction. Finally, they made the clinics simply feel less useful for some respondents and caused a range of other negative effects, such as frustration, among those who had participated.

From the viewpoint of interaction order, we noted in our discussion that since it was first introduced in 2014, the writing clinic's norms and practices had already been established by 2016 and 2017 when the data was collected. These norms were agreed on by its organisers and gradually they became familiar to those who participated. These norms and rules included the schedule and place of the clinic, as well as distance participation practices. What was not agreed on, however, was the interaction order during the clinic. While there was normally a chair leading the conversation, there was no clear structure in who was commenting on the presenter's work after they had finished their part. According to the online survey this was something that the participants of the clinic would have wanted to happen. Additionally, there were some "hidden" norms which were typically not explicitly expressed: Usually the supervisors were first to comment and after that more experienced doctoral researchers, and finally the "newcomers", who did not usually comment on the texts at all.

Discussion

In the article we concluded that the disruptions regarding the interaction order of the writing clinics were multifaceted but often also tied to *discourses in place* (the technology, the seminar room, and the norms regarding participation) but also *historical bodies* of the participants (their earlier clinic experiences,

technological and language skills, their academic position and role). The most interesting finding we had was related to the importance of the microphone as a *mediator of social action*. The microphone, which was circulated in the seminar room (so that the distance participants would here the participants in the room), indicated who had the turn to speak, as without the microphone the distance participants could not hear what was being said. Therefore, we stated in the study that the interaction order and action of the writing clinic were largely materialised in the microphone. In this sense, participants in the room were higher up in the "participation hierarchy" than the participants at distance. This calls into question the findings presented in earlier research, according to which different writing groups make doctoral researchers feel themselves as part of researcher communities (Boud & Lee, 2005; Maher et al., 2008; Parker, 2009).

Another interesting finding was the role of language. Within the same, small department there were very different views regarding language use. This made us ask the following questions: What level of language skills is needed to be able to discuss one's research during the writing clinic? Should it be Finnish because the clinic happens in a Finnish university? Should it be English because that is something at least the majority of the doctoral researchers and supervisors know, at least a bit? What if a doctoral researcher's native tongue is not Finnish or English but something else? Is it acceptable that not all doctoral researchers within the same department can participate in a seminar because they do not feel their language skills are adequate enough?

While some of these questions are easier to answer than others, some of them are directly connected to the curriculum of the Faculty of Humanities and Social Sciences, according to which a doctoral researcher should "be able to present their research in written and spoken form for an international audience"[12], although the language is not explicitly stated. In the same curriculum, there is a targeted learning outcome for doctoral researchers whose native tongue is not Finnish: "based on their starting level, the doctoral researcher can manage everyday situations in Finnish or can discuss and write about their research in Finnish" (University of Jyväskylä, 2017). Although both sections have some ambiguity in them (what is "an international audience", for example?), the curriculum encourages both Finnish-born doctoral researchers to present in other languages than Finnish, and vice versa.

Change and asking new questions

In nexus analysis, the third stage after navigating is *changing the nexus of practice*. These can include concrete actions resulting from the analysis and conducting

12 The quotes are translated from the Finnish curriculum: "pystyy esittelemään omaa tutkimustaan suullisesti ja kirjallisesti kansainväliselle yleisölle" and " kielitaitonsa lähtötilanteesta riippuen joko selviytyy arkipäiväisistä kielenkäyttötilanteista suomeksi tai pystyy puhumaan ja kirjoittamaan myös omasta tutkimuksestaan suomeksi"
(https://www.jyu.fi/hytk/fi/tutkimus/tohtorikoulutus/tutkintovaatimukset/humanistis-yhteiskuntatieteellisen-tiedekunnan-jatko-opetussuunnitelma)

further research on the topic. The concrete actions for this and other sub-studies are summarised and discussed in Chapter 6. However, an important part of nexus analysis is also asking new, better questions to steer further research and decision-making. For this sub-study, we asked the following questions:

1. How could the participants' historical bodies (earlier writing clinic experiences and technology/language skills) be better acknowledged when planning doctoral seminar activities?
2. Who participates in writing clinics? Why them specifically?
3. Who makes the decisions regarding participation? Why them specifically?
4. Who decides the language used in the clinics? Why them specifically?

As we argue in the article, the results of the study shift the attention from the action itself to what happens when a desired or expected mediated social action is disrupted for one reason or another. Thus, the study helps at developing doctoral education in terms of distance education and hybrid seminars, something that became particularly important during the spring of 2020 when universities had to switch to online teaching almost overnight. The questions formulated based on the results also highlight the (hidden) power relations within everyday academic practices that we ourselves are involved in. Discussing them did not only help us critically reflect on these practices but also made us question other elements of doctoral education which are typically considered as "self-evident".

Nexus analytical implementation

Of all four sub-studies of this dissertation, Article I had the narrowest focus: a specific type of event (a regular writing clinic) within one specific department. Furthermore, it mostly focused on one facet of social action—the interaction order. However, conducting this study showed me how observing a single type of event within a longer time period can reveal something of interest that seemed to work well at first glance. For example, simply offering a distance participation option does not automatically mean that the participation becomes equally possible for those physically present and those at distance. This ought to be taken into account by universities and departments when designing the modes of study of today's doctoral education.

5.2 Sub-study II

Background

The second sub-study on international doctoral researchers (see Article II) came to be partly by accident. Although the notion of "accidentality" might go against

of principles of conducting well-planned and systematic research, in nexus analysis, however, it is part of the deal: While the early research question(s) are not specified and detailed, they keep being formulated as the research process and analysis is operationalised. For example, very early on during my data generation at CALS I had already noticed how Finnish and international doctoral researchers were talking about different things during the interviews, even though the structure of the interview was the same for everyone. I found this interesting but at the time I did not have a more specific idea on how to discuss those differences.

After finishing my data generation at CALS, a colleague of mine asked me to contribute to a special issue on international doctoral researchers in Finland. Although the special issue never happened in the end, I decided to conduct the study nonetheless, as I had already begun with the preliminary analysis. In this sub-study I presented how nexus analysis can be used to highlight issues that might otherwise be missed by higher education researchers studying international doctoral researchers. It consisted of three parts: a concise description of the theoretical and methodological concepts nexus analysis, demonstrating how to do nexus analysis by applying its three practical stages to small but versatile dataset that was generated as part of the present work, and finally discussing its benefits in studying international doctoral researchers and pointing out the methodological limitations of the existing literature.

Literature

To frame my argument, I discussed the problematic definition of "an international student" (see Cree, 2012; Elliot et al., 2016a; Hoffman, 2009; Ku et al., 2008), the literature where the heterogenous nature of this group is contested (see Asmar, 2005; Choi et al., 2012; Fotovatian, 2012), "otherness" (Benzie, 2010; see also Chapter 3.2.1), and its negative consequences (also Ryan & Viete, 2009), which are not only related to language and interaction but also to the questions of power, membership, and legitimacy (Fotovatian, 2012; Norton, 2006). This calls for taking international doctoral researchers' background and motivation into account (Norton, 2001; Chapter 3.2.1) in higher education context, and expanding our notion of time and space regarding international doctoral researchers (Pennycook, 2005).

Data

To present nexus analysis as a viable alternative for qualitative research where the aforementioned aspects of research are accounted for, I chose to demonstrate it with this second sub-study. To demonstrate the analytical power of nexus analysis, I chose to combine my CALS interview data to university documents, reports, and events that were related to doctoral education (see Table 6 in Chapter 4.2). A specific event of interest that I zoomed into was "the Future of Doctoral Education", a seminar organised at the end of the university's evaluation of doctoral training, implemented in 2016. In the event the university's graduate

school coordinator presented the results of the evaluation and the audience was asked to participate in the discussion and ask questions. I then compared the notes and observations I made in this event to the official documents of the university as well as to the interviews I had conducted earlier. Here, I paid attention to the possible mismatch between what was being said and what was actually being done.

Results: the need for new questions and methodologies

I divided my analysis into three parts, according to the different parts of social action: discourses in place, historical bodies, and the interaction order, providing examples from the data for each of the three aspects. The questions which I formed on the basis of the analysis were as follows:

1. *Who* (interaction order) gets to decide *what* (discourses in place) is being evaluated or discussed in relation to doctoral training—and international doctoral researchers in particular—at universities, and *why*?
2. *How* are all these decided, and *how* do the decisions affect the topic that is being discussed?

These questions share similarities with the questions presented in the first sub-study. They shed light on the processes and practices which determine a specific action—in this case the doctoral training of a university and its evaluation.

As I argue in the article, it is important to consider such questions, as those assessing doctoral education and programmes share the goals with doctoral researchers—to address the challenges of doctoral education and, in this way, to ultimately improve it. However, to do so it would be crucial to ask better questions based on evolving understanding, rather than ask the same questions over and over again, as pointed out by an audience member during the observed event. This sub-study also showed how doctoral training and national policies are carried out, implemented, and connected—or not—to the reality experienced by international doctoral researchers. Nexus analysis as a mode of inquiry is thus helpful in taking account those who are connecting countries and giving them a voice that they often do not get (Shen et al., 2016).

The final point of my argument was based on the literature as well as the results. I asserted that to answer the challenges presented by other researchers, we need to rethink the methodological options that are available to us when studying international doctoral researchers. I followed the argument made by Jonker and Pennick (2009) who stated that methodological discussion often seems to be avoided, even though the quality and transparency of methodologies is crucial for successful research (see also Opoku et al., 2016). I connected this to the idea of Mills (1959) who wrote that "...you must learn to use your life experience in your intellectual work: continually to examine and interpret it. In this sense craftsmanship in every intellectual product upon which you may work. To say that you can 'have experience' means, for one thing, that your past plays

into and affects your present, and that it defines your capacity for future experience." (p. 196). In other words, the methodological choices are not only tied to the focal topic but who we are as researchers. On these grounds I asked in the study why we usually study international doctoral researchers the way we do and what—if anything—we have missed by doing so (see also Bourdieu, 2004). This was not ignored by Scollon and Scollon (2004) either: during one's research the analyst is surrounded by the discourses they are studying. It is not only the participants but also the researchers who have *historical bodies*, and ignoring this fact would be incredibly narrow-minded for anyone doing qualitative (or quantitative) research.

Nexus analytical implementation

This second sub-study taught me three lessons. First, it illustrated how important it is to keep one's eyes open for possible topics which were not explicitly envisioned in the preliminary stage of the research process. Second, it showed that it is possible to expand one's data after the initial data generation. Finally, it made clear to me that presenting a mode of inquiry stemming from linguistics to an audience that is not familiar with it (higher education researchers) as well as demonstrating its use is quite challenging within the scope of one single journal article. For example, strict word limits of journals pose a challenge for the issue that I criticised in the article: Is there enough room for a proper, methodological discussion and an empirical study in the same paper, or should a researcher only choose one at a time?

5.3 Sub-study III

Background

The third sub-study (see Article III) was the most long-term project out of the sub-studies included in this dissertation. It discusses the spatiotemporal dimension of doctoral education by integrating the concept of *scales* (Blommaert, 2007; Blommaert et al., 2015) to nexus analysis. In the study I argue that previous research does not do this: It is either focus on individual facets of doctoral education, such as socialisation, supervision, or writing (as illustrated in Chapter 3.2). The few existing holistic models (see Cumming, 2010; Holdaway, 1996; McAlpine & Norton, 2006; Thorlakson, 2005), in turn, are conceptualising doctoral education as something that is two-dimensional, rather than three or multidimensional. As Scollon and Scollon (2004) stated, however, mediated social action always takes place in specific spaces within and across specific timescales, which again have connections and consequences for other spaces and timescales. To strengthen the analysis of these connections, I decided to test the utility of sociolinguistic *scales* together with nexus analytical concepts. It allowed

me to discuss doctoral education as something that is *layered* (as opposed to linear), which I thought would function well with the ideas of nexus analysis.

Theoretical concepts

Blommaert (2007) and Blommaert et al. (2015) conceptualise scales as a vertical metaphor, which allows the analyst to go beyond the typical two-dimensional thinking, often accompanied by horizontal metaphors such as "flows" and "trajectory". The concept reveals the multi-layered nature of social phenomena: they are hierarchically ranked and power-laden, which is why the differences between phenomena can also be explained by integrating this concept within nexus analysis. For example, we regularly observe and are engaged in norms that are attached to the multitude centres of authority (Blommaert, 2007). These authorities do not necessarily need to be the institutions, organisations, or states but they can also be the family, a group of peers, or the media. All such authorities can be either local or translocal, and momentary or lasting. Additionally, social events and processes related to them move on a continuum. Rather than being horizontal, this continuum is layered, consisting of several dimensions. In social sciences, these dimensions are typically called micro, meso, and macro levels. With scales, however, there can be several stages between the two extremes. Fascinated by the idea, I decided to apply scales and nexus analytical concepts to my CERN data (Chapter 4.1). At CERN, the participants were working with full-time funding in an ideal research environment, which meant that I was able to focus on the "bigger picture"—what was happening when the basic pieces of doctoral studies were already there.

Data and analysis

In the study I applied a two-stage analysis process, for which I used the Scollons' fieldwork guide and the questions included in it (2004, pp. 152–278). By the time I was writing up the article, the first stage had already been conducted. It consisted of the engaging and navigation stages, which had taken place during the initial data generation between July 2016 and December 2017, as described in Chapter 4.1. The second stage, however, included more detailed questions of the fieldguide, addressing issues of time and space specifically.

Results

Based on the analysis I showed that most of the social action that is involved in doctoral studies at CERN was happening in multiple smaller and local spaces. They were of lower scale, which means that they were momentary and individual. However, the actions themselves were governed by higher-scale authorities: different research groups, universities, departments, and funding agencies which, by contrast, are impersonal, collective agents. For example, each institution typically has general, objective, and uniform regulations which individual doctoral researchers have to follow in order to carry out their studies.

The analysis allows to focus on the tension between the two levels: the lower and higher scales. Regulations that are formulated on a high scale-level might have severe consequences on an individual doctoral researcher's life, and especially for those experiencing complex mobilities (Article IV; Archer, 1995; Urry, 2007) or hypermobility (Courtois, 2020). Despite their individual motivations to pursue a doctorate, they are part of different power-invested systems that are connected to the internationalisation goals of European universities. As I argued in the study, the mobility goals set by internationalising universities are in stark contrast with regional and national policies and practices, which often make "being mobile" harder rather than easier.

To summarise, the analysis showed that doctoral researchers act and are acted on within multiple horizontal and vertical spaces, most of which have an effect on both shorter and longer timescales. Considering previous literature on doctoral education, this reality is often ignored. Moreover, it is most likely not understood by the participants but most importantly by those who make decisions regarding doctoral education. The questions I asked based on the findings of this sub-study were as follows:

1. "Physical and vertical spaces: Could universities provide even more flexible ways of studying and working, independent of place and/or time? Which authorities are enabling/regulating/restricting (mobile) doctoral education?
2. Complex mobilities: Do personnel in higher education institutions across Europe have the sufficient skills and knowledge to provide assistance for their students experiencing complex (or any type of) mobilities? If not, could the situation be improved?
3. Future: Could the individual needs of mobile doctoral students (i.e. future workforce), the needs of their families, and the shared needs of European knowledge economies be better articulated? Do doctoral students have to 'accept future uncertainty', or can it be reduced by changes in practices and policies regarding the challenges this analysis spotlights?
4. Questions regarding the use of nexus analysis: Could scales and nexus analysis, used here in a STEM context, uncover equally interesting findings in other types of settings? If nexus analysis crosses state-of-the-art on the topic of doctoral education, does it have similar potential on other, equally well-beaten paths?" (Article III, p. 9).

The results of the analysis revealed that also those doctoral researchers who are seemingly doing their doctoral work in ideal, state-of-the-art settings, they are part of different types of layered, power-invested systems nonetheless. This is why the European Commission, nation states, higher education institutions, and doctoral programmes have much more to do if they want to get beyond state-of-the-art doctoral education as part of today's knowledge work.

Nexus analytical implementation

In this study I was able to incorporate nexus analysis with other concepts and test how it would work analytically. Although the task was by no means easy, I discovered that integrating another concept to support nexus analytical concepts can strengthen the power of the analysis and help in understanding and visualising the social action in focus more clearly. This is important considering especially for those outside of the field of linguistics, for whom the core concepts of nexus analysis might not otherwise be familiar.

5.4 Sub-study IV

The fourth and final sub-study (Article IV) included in this dissertation discusses the differences between policy-based evidence (PBE) and evidence-based policy (EBP) (Wildavsky, 2017) in the context of Finland, mobilities, and migration. In the article we argue that to better address the challenges of 21st century migration and mobilities (also discussed in Chapter 3.2.3, Article II, and III), better, evidence-based explanations and questions are needed. Moreover, we argued that focusing on topics which, on the surface, might seem "unrelated" might reveal more about the social dynamics impacting these topics than what many scholars, policy actors, or stakeholders currently think.

Background

Unlike for other sub-studies in previous chapters, our departure point was not nexus analysis. It was the idea originally presented by Denzin (1994), according to whom there are two types of interpreters: people who have experienced the described phenomenon and those who have other types of expertise in it (e.g. ethnographers). Based on this we presented a four-fold model where there are those who (1) have professional competence on a topic, (2) those who have experience on a topic, (3) those who have both, and (4) those who have neither. Following this we asked two questions: Which of these groups talk about migration and mobilities in Finland? Who *could* talk about them but normally does not? (see also Hoffman, 2007; Hoffman et al., 2016).

Literature

To frame our article, we discussed three major bodies of literature. The first one was on internationalisation (e.g. Cantwell & Kauppinen, 2014; Marginson & Peters, 2010; Slaughter & Leslie, 1997; Tremblay, 2005; Urry, 2007) and the second discussed highly skilled migration (e.g. Castells, 2009; Favell et al., 2007; OECD, 2008) and the "mobility turn" in sociology (Habti, 2012; Sheller & Urry, 2006) specifically. The third set of literature we covered was on refugees and asylum seekers (e.g. Black & Gent, 2006; Finlay et al., 2011; Harvey, 2006; Kibreab, 2003;

Steyn & Grant, 2007), which was particularly relevant at the time of our study because of the 2015 "migration crisis". Together, this literature formed the relevant *discourses in place* for our analysis.

Data and methods

Methodologically, instead of doing a "full-blown" nexus analysis, we *drew on* the theoretical and methodological logic of nexus analysis instead. This means that we had four individual studies, or *vignettes*, only one of which was conducted based on nexus analytical principles. We then decided to test the utility of nexus analysis by looking across these four different studies from four different disciplines together. We applied nexus analytical concepts to contrast and problematise the discussion on mobilities and migration in Finland in 2016, and to aim to answer the questions presented above. The main aspects linking our endeavour to the mode of inquiry developed by the Scollons was that we were also studying our everyday lives. Moreover, originally when conducting their research in Alaska in the 1980s, the Scollons did not know it was going to be nexus analysis either. Only later they integrated theory and methodology in the form of nexus analysis, which is what we also decided to do in this study, instead of generating new data from scratch. This allowed us to analyse a much larger picture of mobilities and migration, rather than its individual facets separately.

The four vignettes we chose for our analysis came from four different disciplines or fields of study: applied language studies, intercultural communication, sociology, and comparative and international higher education studies. The first was my ongoing doctoral work at CERN, which later resulted in Article III. The second was another dissertation in progress by Sirpa Korhonen. In her doctoral work (in progress), conducted in Iraqi Kurdistan in 2013, she focuses on returns in the context of irregular migration. The third vignette by Driss Habti discussed the perceptions and practices of Russian-speaking physicians who migrated to Finland (see Habti, 2019). Specifically, he focused on their transition passage to work by using a life course approach (Kõu et al., 2015; Wingens et al., 2011). The fourth vignette was based on studies by David Hoffman and colleagues (see Hoffman et al., 2015; Hoffman & Välimaa, 2016), which addressed scholarly precariousness, equality, and non-discrimination in Finnish higher education employment. By looking across these four individual research projects or studies from our respective fields helped us to identify those discourses that are normally ignored when discussing migration and mobility in the Finnish context. We argued that there is a lack of *sociological imagination* (Mills, 1959) within the research-policy nexus in Finland, where, for instance, there has never been a clear evidence-based approach introduced related to migration and mobility challenges. This has led to a situation where highly-skilled mobile workforce is questioning why they should stay in Finland. In a country where migrant workers are desperately needed as its work-force grows older (Helsingin Sanomat, 2019), it is surprising that policy processes still disregard this.

Results and new questions

In this study we did not conclude our findings with a set of questions. Instead, we presented four distinctions that need to be better understood, as does their relationship, to increase evidence-based understanding of the challenges that Finnish society is facing. These were:

1. "Mobilities (Urry, 2007), which offers a paradigmatic approach to the era in which we now live. As such, this implicates humankind, in general, as no person on the planet falls outside the scope of this paradigm.
2. Migration, which involves well-documented dynamic patterns of human movement within and across the regions and countries of the globe involving millions and which entails complex mobilities.
3. The internationalization of higher education, which involves distinct forms of mobilities and sometimes migration.
4. The migration of refugees and asylum-seekers, an established focal point of migration studies relevant to several forms of complex mobility." (Article IV, p. 232)

We argued that to understand these challenges, both theory and concepts in use are needed, especially when communicating the findings to policy-makers. This, however, is not easy. The topics we discussed in the study are not only complex, they are also contested, and often simplified by many—something that was a challenge in 2016 when the article was written and what continues to be a challenge today.

Nexus analytical implementation

Chronologically, this final sub-study was conducted before the others. Furthermore, its inception differs from the rest significantly. It was a result of an interdisciplinary collaboration which begun at a sociology conference in Jyväskylä, Finland in 2016. Three months later we were asked to contribute to a special issue discussing the new mobilities paradigm in the Finnish context. At the time when we began the project it seemed somewhat an overwhelming task. I was asked to be the project leader, something which I had no prior experience of. Moreover, at this point I was still in the middle of generating data at CERN, meaning I could only offer some preliminary results in my vignette. However, looking back at the process now, not only did this project teach me a great deal about collaborative writing, it also helped me in placing my research topic to a wider context beyond doctoral education and European higher education, which I might have otherwise end up ignoring in my work. As we argued in the article, such ignorance or inability to see linkages between seemingly "unrelated" topics and phenomena often lead to a severe lack of understand and ultimately lack of action in policymaking.

5.5 Distribution of work

I co-authored Article I with my supervisor, Taina Saarinen. The work was distributed in the following way: I generated all the data independently, except for the online survey where Saarinen helped me in formulating the questions. The conceptual framework and research questions were jointly planned. The article was mostly written by myself, except for the paragraphs about CALS as a department. Saarinen also provided thorough comments and suggestions on the article during the writing and review process.

Articles II and III were single-authored papers.

Article IV was co-authored with three other researchers: Sirpa Korhonen as the second author, Driss Habti as the third, and David Hoffman as the fourth author. The original idea for the article was presented by Korhonen in 2015, when she expressed the need for a policy analysis regarding the topics presented in the article. She and Hoffman then initiated the discussion, and in March 2016, four of the miNET[13] team members (the authors of the paper) decided to present these initial ideas in a Finnish sociology conference. This was a starting point for the article. The paper was a joint project from the outset: While Hoffman provided an initial outline for the paper, soon after I took over the project lead, coordinating our division of labour, integrating our analysis and editing the manuscript at every stage of the review process. In the final version of the paper, each of the four authors were responsible for their own vignette. Additionally, I wrote the methodological section, Habti wrote the first half of the background literature section and Korhonen the second half. The introduction, discussion, and conclusion were written jointly, Hoffman being the main contributor of those sections, however. During the final stages of the editing process I was in charge of implementing the reviews and the final edits needed before publishing.

[13] At the time, miNET was called miGroup: https://ktl.jyu.fi/en/research/migroup/

5.6 Ethical considerations

Considering the ethical aspects of research is part of every researcher's work. Whatever the field or specialisation, one has to take into account a vast array of ethical issues to carry out reliable and responsible research. Many Finnish universities, for example, have already included research ethics as a mandatory part of their doctoral programmes along with other research skills. However, so far there is no single universal code comprising all disciplines on how to conduct research ethically—not that such a code would be necessarily desired either. In Finland, researchers normally follow the ethical guidelines set by TENK, the Finnish national board on research integrity[14]. TENK "promotes the responsible conduct of research, prevents research misconduct, promotes discussion and spreads information on research integrity in Finland" (TENK, 2019). Although their guidelines are meant for all disciplines, meaning they are not very specific regarding different methodologies, for example, they are still an excellent starting point for any researcher to consider different ethical aspects of their work.

As a basis for discussing the ethical issues of this dissertation, I will use a review on insider ethnography (Aarnikoivu, 2016), which listed different challenges that an insider ethnographer might confront during research. The discussion is divided into two parts: the ethics of data generation, followed by the ethics of writing up and reporting the findings.

5.6.1 Ethics of data generation

Accessing the community

In previous sections I have already described how I accessed the studied communities in practice. Gaining access to a community is often easier for insiders than for outsiders, as they already have a role within the studied community, the one of a colleague, for example. However, sometimes the dual role of colleague/researcher might be confusing (e.g. Leigh, 2013; Zaman, 2008). For me, my insider role made it quite easy to gain access to both CERN and CALS. At CERN I became a member of the games club and acquainted with several potential participants already before deciding to conduct a study there. All the participants agreed immediately to take part when I asked them. At CALS, by contrast, accessing the community was slightly more difficult, even though I was officially part of it due to my PhD student status. Because of my physical absence in the department at the beginning of my studies, however, I did not get to know other doctoral researchers and staff at the beginning of my studies; before asking them to participate in my study. As a result, it required more effort from me to

14 More on TENK and their guidelines, see https://www.tenk.fi/en and https://www.tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf

find interviewees, and this might also be why I had less interviewees there than at CERN.

Acquiring the consent for the study

At the beginning of the first interview (both at CERN and CALS) I asked each participant to read and sign an informed consent form, for which the template was found online but I adapted it to the needs of my own study. The two-page form included the following subsections: The purpose of the study, procedures, potential benefits / risks, confidentiality, participation and withdrawal, and identification of investigators (i.e. the supervisors). Most participants read the form through carefully, although especially the CERN participants found it more amusing than necessary. However, as Kirpitchenko and Voloder (2014) stated, for interviews the consent is rather simple to acquire but in less structured situations, such as when observing informal conversations on the field, it might be more difficult. The answer for these types of situations could be to ask for the permission afterwards, for example. For me this was not a problem as I was not observing any other people except the ones I had also interviewed. If I participated in a meeting with other people, I would ask a permission in advance to be there, and clarified that I was only there to observe the individual participant. At CALS I sent an email to the entire department at the start of each semester, asking those who did not want to be observed during the writing clinics or doctoral seminars to let me know. During the data generation only two people asked to be excluded from my notes. As I had no notes about them to begin with, this did not pose any problems for me.

As my fieldwork was taking place in two different organisations, CERN and CALS, I also wanted to acquire the permission from the institution as well. First I contacted the legal adviser of the CERN HR department who granted me permission to study individual doctoral researchers at CERN as long as I would have their own permission, I would use CERN information merely as a background information for the studied topic, and that I would not use CERN's protected logo in my work. At CALS, I contacted the Head of the Department with a similar message I had used for CERN, and obtained the permission without problems.

Doing the fieldwork

Due to its open research design planned to a great extent by the researcher, insider ethnography poses ethical dilemmas and challenges that do not exist in other kinds of methodologies. For instance, many of the situations happening in the field cannot be predicted in advance and thus the researcher cannot fully prepare themselves for them. At CERN I managed to organise my work in a way that, although working only part-time on my dissertation, I usually had an opportunity to leave my work station and go and observe if I heard one of the participants having something of interest going on. In addition, I could easily free a morning or an afternoon to talk to them or observe them while they were

working. This flexibility created a number of great opportunities for me to collect data, even if I was not a full-time student for the first nine months.

With CALS these types of opportunities did not occur as I had chosen remote ethnography as the main data generation method along with interviews. Thus, most of the observed events were scheduled in advance. This made the CALS data very different from the CERN one. First, observing at distance posed some technological challenges, discussed in more detail in Article I. Different problems with sound, video, or computer connectivity either restricted the access to the events or completely made participating impossible. Not only this affected the participants who wanted to participate, but it also made me miss some aspects of the events. For example, at best I would know exactly who was online, who was in the seminar room, see some of their faces, and hear most of the things that everyone said. At worst, I heard only part of the discussion in the room, had to write what I wanted to say in the chat instead of saying it by using a microphone, or missed an entire event because the connection did not work. At first this felt frustrating, but then I realised I should turn this into a strength, which is why I zoomed into the writing clinics from a technological perspective, wrote Article I, and included it in this nexus analysis.

Insider/outsider positionality

One of the particular challenges in any ethnography is the insider/outsider positionality (Hult, 2014). As Alvesson (2003) argues, a kind of "sense making" research where one is studying people belonging to a group that they are a member of can differ quite significantly from when one is studying "others" or "outsiders"—a community they are not part of. As already discussed in Chapter 4, my insider role at CERN and CALS differed from each other: At CERN I already knew people, which helped me in gaining an insider-like access to the premises, making it easy for me to get to know more people who were working there, entering the area, and finally recruiting eight participants with ease. Gaining access and beginning a non-physics-related study there would have been significantly more difficult for someone who did not know anyone from CERN beforehand. I was also a doctoral researcher living abroad, like my participants. However, I was not a physicist, meaning I was also an outsider. I did not know how it was to do a doctorate in physics specifically, or how it was to *really* work at a CERN experiment, even if I was hearing about it from my participants already before I began my fieldwork. At CALS my insider role was based on me being a doctoral researcher in the same department. I did not have to gain official access because I had been accepted as a student there. However, getting to know the participants was more difficult because I did not know anyone beforehand or was physically around.

Because of my mixed role in both settings I could be considered as a partial insider (or a partial outsider), which required me to carefully negotiate my role both during the data generation and afterwards when reporting the findings. This was particularly important at CERN, where I was friends with the

participants, although some of them were rather acquaintances than close friends. Earlier studies have discussed that researcher might find themselves in the middle of different types of loyalty tugs or identification dilemmas, for instance (Brannick & Coghlan, 2007). As also Taylor (2011) concluded, encounters between friends in the context of research will always be both personal, and the factors affecting the encounters cannot be predicted or measured. This is why the best way to handle possible conflicts would be to trust our instincts and familiarise ourselves with prior insider ethnographic work as well as possible (Aarnikoivu, 2016), which I did.

It is impossible to fully estimate how much the closeness with the CERN participants affected the data generation and reporting the results. I would claim that being friends with the participants helped me generating more versatile data than would have otherwise been possible. However, since I did not want to upset anyone, or be too invasive, I was also quite careful at some points of the data generation. For example, if I had noticed that a participant was extremely busy, I did not want to ask if I could observe them during a specific day, or if I had noticed they are not fully comfortable with voice/video recorder, I simply made quick notes rather than record them. Here, however, I would argue the researcher has to assess each situation and participant separately, and trust their judgment. In this, I feel I was fairly successful.

Closeness with the studied community might also lead to problems with taken-for-granted assumptions (Alvesson, 2003). Throughout the research process I had to remind myself not compare my own doctoral journey or thoughts with the journey and thoughts of my participants—or assume that they would be even remotely similar. For example, at the beginning of my doctoral studies I thought early-career precarity was something I should focus on. However, as it soon turned out, the CERN participants all had secure funding for at least three years, and none of them worried too much about their financial situation. This was a moment where I had to zoom out and change my focus to something else—to mobility challenges, later resulting in Article III. In turn, I had never experienced difficulties in finding support for academic writing, whereas the CERN participants had very little of such support, resulting in long and frustrating thesis writing processes.

Especially when *changing the nexus of practice*, which will be discussed in more detail in the next chapter, I also had to be wary of my role in the studied community, especially at CALS and JyU. From the start I knew I had the aim of changing something I would find problematic during the research process. However, criticising one's own organisation is not particularly easy—especially for an early-career researcher, even when done in a constructive manner and based on research. However, here it is important to carefully consider how to communicate one's results and ideas to those who can facilitate further change. I will discuss these issues in more detail in Chapter 6.

Language

In this study I interviewed 15 people in total: eight at CERN and seven at CALS. Five of them I interviewed in their first language and the remaining ten in international English. It is difficult to estimate the extent to which not being able to talk in one's first language had an effect on the interviews. While most of the interviewees seemed to speak freely and fluently, some interviewees were considering their choice of words carefully at times. However, this might be due to their personality rather than the choice of language. Moreover, participants who were not native speakers of English were using English as their primary language of work, which means they were used to speaking English on a daily basis.

The observed events at CALS were either in Finnish or English, meaning that some of the participants were native speakers, some were not. There was some language-related feedback provided in the survey that was collected for the purposes of Article I. In the survey, one respondent expressed their dissatisfaction towards having to use English (instead of their native language Finnish) to discuss something as complex as research. Another respondent, by contrast, thought that it would be important for the international doctoral researchers to learn Finnish to be able to use it during the clinic meetings at least to some extent. They argued that this would be helpful for them in the future work life as well. These opposing views among the same, rather small department—which coincidentally studies language use—reveal that the language during the writing clinics is a controversial topic, and thus can be thought to affect the meetings at least to some extent. Furthermore, some participants who might have been relevant actors in terms of doctoral education at CALS might not have participated in the clinic meetings at all because they were not comfortable with using Finnish or English. However, there was no evidence for this in the survey itself, as the main reasons not to participate were related to personal schedules or perceived irrelevance to one's ongoing work.

Considering my own language use, I was generating data both in my native language—Finnish—and in my strongest non-native language—English. Because I had studied English since I was nine years old, completed both my BA and MA degrees in English (studying *the English language*), and had been living in an environment where English was used as a primary language of interaction for several months before my data generation began, I was very comfortable with using English as well. In fact, because most literature I read for this study was in English, it was perhaps even easier for me to generate data in English. Whenever I had to discuss my research in Finnish, I would struggle. For this reason, I decided to write Article I in Finnish—to be able to present my research also to non-English speaking Finnish audience. There was also one conference where I decided to present in Finnish, although English would have also been possible.

As Hult (2014) stated, being conscious of one's language use and language choices is important, as it allows us to address some of the tacit assumptions we

might have about our linguistic abilities. This can then result in more deliberate actions when conducting our research work.

5.6.2 Ethics of writing up and reporting the findings

Securing the anonymity of the participants

Because ethnographers study social phenomena, there is always a risk of exploitation and causing harm to participants (Atkins & Wallace, 2012). All the participants should be provided with pseudonyms to secure their anonymity and the amount of details (such as age or country of origin) should be altered to the extent that the participants are not recognisable.

When studying people in a specific organisation or community, the chances for them to be recognised by someone increases as the size of that organisation or community decreases. As CERN has hundreds of doctoral researchers working there, the risk of becoming recognised by an outsider is not particularly high. Even if the participants would be identified, Article III does not discuss doctoral researchers individually but rather as a group, and it would be impossible to connect the interview excerpts to a particular participant. However, as the participants shared the same hobby, it is possible that the participants have recognised each other from the articles—if they have read them. Furthermore, the participants did not try to hide the fact that they were participating in my study, which made it even more difficult to keep their identity secret. However, the topic of the present work is something that all of the participants share. This means that there was not a great deal of extremely personal or somehow delicate information shared that they would not or did not share with others anyway.

At the start of the data generation I asked each of the participants at CERN to provide a pseudonym for themselves. After I proceeded to the analysis and writing the article regarding the CERN participants, I realised, however, that to maximise their anonymity I should not use the pseudonyms they provided as they would perhaps reveal the country of their origin and in this way also their identity to each other. As some of them had openly told each other that they are participating in my study, by removing any pseudonyms or other identifiable information I made sure that a quote, for example, could not be connected to a specific participant. With the CERN participants, I was able to reveal some background information on them as a group (see Chapter 4.1) but only what was relevant for the purpose of the study. With the CALS participants I decided to not provide any background information on them, as CALS has a very small doctoral researcher community and individuals are easily recognisable. This, I think, limited the options of reporting the findings for me to some extent, as I was not able to describe the background of my participants almost at all.

Reporting the findings

As any qualitative work, also this study has produced a great deal of data. While it can be considered a positive problem, generating data in two different settings

created *too much* data to report within the scope of one dissertation. Thus, I had to decide what to write about but also what to leave out. The motivations and background for all the sub-studies are discussed earlier in this chapter in sections 5.1, 5.2, 5.3, and 5.4.

Reliability and validity of the results

Validity in qualitative research has been widely discussed (see e.g. Atkinson et al., 2003; Cho & Trent, 2006; Hammersley, 1992, 2016; Johnson, 1999; Kvale, 1995; Maxwell, 1992; Whittemore et al., 2001). Generally, validity of qualitative research is considered more difficult a topic than in quantitative research (Whittemore et al., 2001). It has been argued that many criteria for the validity of qualitative research are confusing (Leininger, 1994), or even impossible to define (Hammersley, 1992).

To critically reflect the validity of the results of this dissertation, I have chosen to use a synthesis of ideas proposed by different scholars, created by Whittemore et al. (2001). Based on their synthesis, they suggested that in qualitative research, primary validity criteria consist of credibility, authenticity, criticality, and integrity. They, as Whittemore and colleagues argue, are necessary for all qualitative inquiry but are not enough by themselves. This is why secondary criteria are needed. These include explicitness, vividness, creativity, thoroughness, congruence, and sensitivity, which are more flexible depending on the study. Whittemore and colleagues (2001) summarised these criteria and their assessment in the following way:

TABLE 8 Assessment of Primary and Secondary Criteria of Validity (adapted from Whittemore et al., 2001, p. 534)

Primary criteria	**Questions guiding the assessment**
Credibility	Do the results of the research reflect the experience of participants or the context in a believable way?
Authenticity all participants?	Does a representation of the emic perspective exhibit awareness to the subtle differences in the voices of all participants?
Criticality	Does the research process demonstrate evidence of critical appraisal?
Integrity	Does the research reflect recursive and repetitive checks of validity as well as a humble presentation of findings?
Secondary criteria	
Explicitness	Have methodological decisions, interpretations, and investigator biases been addressed?
Vividness	Have thick and faithful descriptions been portrayed with artfulness and clarity?
Creativity	Have imaginative ways of organising, presenting, and analysing data been incorporated?
Thoroughness	Do the findings convincingly address the questions posed through completeness and saturation?
Congruence	Are the process and the findings congruent? Do all the themes fit together? Do findings fit into a context outside the study situation?
Sensitivity	Has the investigation been implemented in ways that are sensitive to the nature of human, cultural, and social contexts?

As can be seen, many of these questions are not only for the analyst themselves to assess but the surrounding research community. Whittemore et al. (2001) also presented techniques which can be used to further ensure the validity of research:

TABLE 9 Techniques for demonstrating validity (adapted from Whittemore et al., 2001, p. 533)

Type of technique	**Techniques**	**The present study**
Design consideration	Developing a self-conscious research design Sampling decisions (i.e., sampling adequacy) Employing triangulation Giving voice Sharing perquisites of privilege Expressing issues of oppressed group	As a mode of inquiry, nexus analysis provides a great amount of space for reflexivity, as the historical body of the analyst is also considered throughout the research process. Articles I and IV were jointly written, meaning that the data was analysed by more than one person. The sub-studies of this paper give voice to a variety of groups: distance doctoral researchers, international doctoral researchers, mobile researchers, and refugees
Data generation	Articulating data collection decisions Demonstrating prolonged engagement Demonstrating persistent observation Providing verbatim transcription Demonstrating saturation	The decisions made during data generation are discussed extensively in this chapter and Chapter 4.3. The research process has been long: it started in July 2015 and is still ongoing. Data generation in both two settings lasted 18 months. All recorded interviews were transcribed.
Analytic	Articulating data analysis decisions Expert checking Performing quasistatistics Testing hypotheses in data analysis Using computer programs Drawing data reduction tables Exploring rival explanations Performing a literature review Analysing negative case analysis Memoing Reflexive journaling Writing an interim report Bracketing	The decisions regarding data analysis have been addressed earlier in this chapter with each sub-study and this sub-chapter on ethical considerations. All articles were presented at least in one higher education research conference. The comments acquired during the presentations were incorporated into the manuscripts. Interviews were transcribed with Express Scribe transcription software and the data for Articles I, II, and III was analysed by using Atlas.ti qualitative data analysis software. Each sub-study includes a literature review, extended by a literature review presented in Chapter 3.
Presentation	Providing an audit trail Providing evidence that support interpretations Acknowledging the researcher	Data generated for the sub-studies has not been placed publicly available. This was due to the informed consent form, which stated that "The interviewer/ researcher will keep their interview recordings, notes, and pseudonyms in secret." The role or position of the researcher has been addressed in each sub-study and this dissertation as a whole.

I would argue that it is almost impossible to check all the boxes presented in the above table. However, the two tables above provide an excellent guide towards determining the validity of qualitative research. Regarding this research, I believe I have been successful in ensuring the validity in many different ways. Considering my future research, I would try to aim for an increased triangulation, specifically with single-authored papers, which in the present study were analysed only by myself. Second, I would create the informed consent forms in a way that they would allow making the data publicly available for future research purposes.

As Whittemore et al. (2001) conclude, specifying validity criteria for qualitative research matters both from the viewpoint of the research process and the product. They argue that both ought to be emphasised equally. They refer to the idea of Altheide and Johnson (1994, p. 496), who stated that explicating "how we claim to know what we know" is as important as the claim of what we know. Fortunately, nexus analysis provides excellent tools for a researcher to also analyse the research process itself, bringing strength to the question of *how*, in addition to the question of *what*. For this reason, I have provided such a detailed background for the dissertation as well as each of the studies included in it.

6 CHANGING THE NEXUS OF PRACTICE

The final stage of nexus analysis is *changing the nexus of practice*. The Scollons (2004) called this stage *an intervention* that does not have or is not even supposed to have a positivist solution. This means that, unlike with most modes of scholarly inquiry, the goal of nexus analysis itself is not to provide definitive answers to a set of pre-defined questions—but instead form and ask new, better questions that have not been previously asked, or perhaps even thought about—either by other researchers or social actors of the studied nexuses of practice a particular study brings into focus.

Based on this idea, the results of this dissertation first and foremost consist of a set of new questions that I formulated in each of the four sub-studies (see Chapter 5). They are targeted at researchers, institutional actors in universities, and policy-makers alike. What prompted me to ask and develop questions, from the outset, was the exemplary work and mode of inquiry developed by the Scollons (2004, 2007). However, it was also the observations I kept making throughout my research process: not enough people were asking enough questions, including established and esteemed scholars. If I felt someone was asking critical questions rather than trying to provide solutions to complex issues, I would usually reach out to in one way or another. This group of individuals has also become to form my research network, with which I will continue collaborating also after this work is finished.

There is another dimension to the change, however. That is the change which the analyst, by conducting their research and engaging in the studied communities, is able to cause with their actions. Therefore, I have also listed all the actions with which I have aimed to cause change in the studied settings. While it can be questioned if I had been involved in some of these activities regardless of whether or not I was executing this particular study and nexus analysis as its framework, I argue that most of them certainly would not have taken place.

This chapter is divided into three parts: In the first part I summarise the questions that my colleagues and I raised in the four sub-studies of this dissertation. Based on these questions I will then formulate a more

comprehensive and overarching set of questions connecting all sub-studies together. In the second part I will elaborate on more specific and active changes that resulted from my purposeful engagement and actions during this dissertation research. In the third and final part I will provide a reflection on how it was to facilitate change in doctoral education as a doctoral researcher.

6.1 Asking better questions

Aiming to form new, better questions on doctoral education has been the goal of this study from the very beginning. This is why these questions were already included in the four sub-studies, as presented in Chapter 5. These questions are summarised in Table 10 below:

TABLE 10 The questions asked in each four sub-studies

Article I: Disruptions of hybrid doctoral seminars: a nexus analysis [English translation]	How could the participants' historical bodies (earlier writing clinic experiences and technology/language skills) be better acknowledged when planning doctoral seminar activities? Who participates in writing clinics? Why them specifically? Who makes the decisions regarding participation? Why them specifically? Who decides the language used in the clinics? Why them specifically?
Article II: Studying international doctoral researchers: nexus analysis as a mode of inquiry.	Who (interaction order) gets to decide what (discourses in place) is being evaluated or discussed in relation to doctoral training—and international doctoral researchers in particular—at universities, and why? How are all these decided, and how do the decisions affect the topic that is being discussed?
Article III: The spatiotemporal dimension of doctoral education: a way forward.	Could universities provide even more flexible ways of studying and working, independent of place and/or time? Which authorities are enabling/regulating/restricting (mobile) doctoral education? Do personnel in higher education institutions across Europe have the sufficient skills and knowledge to provide assistance for their students experiencing complex (or any type of) mobilities? If not, could the situation be improved? Could the individual needs of mobile doctoral students (i.e. future workforce), the needs of their families, and the shared needs of European knowledge economies be better articulated? Do doctoral students have to "accept future uncertainty", or can it be reduced by changes in practices and policies regarding the challenges this analysis spotlights?
Article IV: Explaining the Difference between Policy-Based Evidence and Evidence-Based Policy: A Nexus Analysis Approach to Mobilities and Migration.	Who talks about migration/mobilities in Finland? Who could talk about them but normally does not? What are policy actors missing that might be obvious from a more critical, holistic approach than the discourses in place currently foreground? What are the implications for policy actors?

As can be seen from the table, most of the questions are regarding the issues of power and gatekeeping: There are those who are currently making decisions regarding doctoral practices; in all of these cases, those people are not doctoral researchers themselves, although they are the ones participating—either in smaller-scale activities such as a writing clinic, or doctoral studies as a whole. To examine this more closely, I will return to the idea we presented in Article IV (p. 215), which was based on Hoffman (2007) and Hoffman et al. (2016): There can be four types of people who are engaging in an activity or making decisions in higher education, on all levels of analysis:

1. Those with experience-based knowledge (doctoral researchers or doctorate holders who have recently completed a doctorate).
2. Those with professional competence or research-based knowledge (those with a suitable degree/training[15] or those doing research on doctoral education).
3. Those with both.
4. Those with neither.

Based on all the sub-questions presented in the four studies, the main questions that I would like to ask in this dissertation, are:

1. To which of the four groups, listed above, do the social actors making decisions regarding doctoral education and doctoral researchers in Finland/Europe currently belong? How does this currently affect doctoral education and individual doctoral researchers?
2. To which degree are the social actors aware of the unequal power relations and their consequences? Could the awareness be increased and, if yes, how could it be channelled productively into the development of doctoral curricula and programmes in different disciplines?

These questions are crucial in expanding the research focus from specific aspects of doctoral education to the power relations that doctoral researchers encounter continuously during their studies (Anderson, 2017); the power relations which govern the processes behind individual doctoral paths and different doctoral practices, discussed in Chapter 3.2.

In their nexus analysis of computer-mediated communication at the University of Alaska, Scollon and Scollon (2004) discussed the issues of power, gatekeeping, and access as well. As they argued, universities are bureaucratic institutions which are controlling the flow of people into and through the university. This flow, however, includes a number of gates that are guarded by

[15] Occupation-specific degrees and training that bring professional into contact with doctoral researchers, for example heads of doctoral programmes, internationalisation and mobility practitioners, research coordinators and officers, science policy and ministerial officials.

gatekeepers: teachers, supervisors, and administrators, for example. These gatekeepers are relying on what they perceive to be objective procedures of evaluation in order to secure equity. As the Scollons identified, there are two arguments they present, however, which suggest that gatekeepers might not be as objective as they could be. The first is that the gatekeepers use entirely different discursive practices compared to the individuals their decisions are affecting. This led to patterned discriminatory practices, not only against individuals, but structurally to an entire group: Alaska's native peoples. The second is the one of co-membership. It refers to the similar attributes between the gatekeepers and the individual. If there are many of them, it is more likely that the gatekeepers are more likely to advocate towards the individual. These include similar background, interests, or other socio-cultural factors. (Scollon & Scollon, 2004.)

In the context of doctoral education, both the present work and previous research literature have identified several groups, which are experiencing inequalities because of who they are and how they have decided to complete their degree. For example, *first-generation doctoral researchers* face difficulties in learning "the rules of the academic game" (Gardner, 2013; Gardner & Holley, 2011; Holley & Gardner, 2012); *international doctoral researchers* are either treated as a homogenous mass with language difficulties (Asmar, 2005; Choi et al., 2012; Fotovatian, 2012), or their challenges regarding mobility are ignored (Article II); doctoral researchers with *complex mobilities* are "homeless", or struggling to navigate the bureaucracy of several countries at once (Article III; Article IV; Balaban, 2017); *distance doctoral researchers* find it more difficult to "belong" to doctoral communities and take part in developmental activities (Article I); and *part-time doctoral researchers* do not fit the ideals of the efficient university following the requirements set by the Bologna Process and the Salzburg principles (Jauhiainen & Nori, 2017).

These inequalities do not only become apparent through actions but also through language, which manifested in Articles I, II, and III specifically. In Article I, the language choice itself caused some invisible tension among the writing clinic participants. In Article II, the institutional actors (the representatives of JyU's graduate school) were engaged in an institutional discourse, developing doctoral education according to the university strategy and mainly treating all doctoral researchers as a unified group, occasionally separating them into sub-groups such as "full-time students" or "part-time students" at most. The doctoral researchers, by contrast, each had their own *historical body;* their individual motivations, circumstances, wishes, and worries regarding their individual doctoral path, making the used discourse very different from the one of the university. In Article III, in turn, the CERN participants were trying to navigate the discourses and practices of CERN and their home universities, but also the national-level discourses of regulations and legislation, which was a source of stress for them, especially if the language was one which they were not fluent in, such as French.

The differences in discourse use between institutions and individuals ultimately affect the outcomes of different activities. This is also why, according

to the Scollons, it is so important to study both one-time events and discussions but also to understand the wider institutional and societal factors affecting them. Moreover, the Scollons (2004) argued that to ensure the equity of students, locating and defining organisational barriers within the university system is crucial—otherwise it is impossible for the university to deal with the barriers. As discussed in Articles III and IV, this idea is not limited to universities but extends to national-level institutions and gatekeepers as well.

To be fully able to address the questions of power and gatekeeping in the context of European doctoral education, further research-based interventions are needed. Based on this nexus analysis, however, I can offer some preliminary insight on unequal power relations. At CALS, for example, despite the undeniably good intentions of the past and present organisers of the writing clinics, it was not fully clear to what extent the organisers were familiar with research on hybrid seminars, doctoral writing, or doctoral communities (i.e. research-based knowledge). Experience-based knowledge was partly there, although some of the organisers had not completed a doctorate themselves, or if they had, they had completed the doctorate already a while back and were now in the role of a supervisor, which—although important—is not equivalent to the role of a doctoral researcher. In this case, consulting those who have both research and experience-based knowledge, or at least one of them, might have helped avoiding some of the issues that caused disruptions in almost all of the 13 clinic meetings that I observed.

At the University of Jyväskylä, the graduate school functions in three levels: the university level ("JyU graduate school"), faculty-level ("doctoral schools"), and practice-level ("doctoral programmes"). As a whole, the JyU doctoral education is thus managed by several individuals. It is not clear whether this group has extensive research- or experience-based knowledge on doctoral education but the results of Article II suggest there is definitely room for improvement. For example, prior to COVID-19, distance learning options within the doctoral course selection were a rare exception, although the number of doctoral researchers living outside of Jyväskylä was and still is significant. When emailing the Faculty of Humanities and Social Sciences in August 2018 about the importance of online participation, I received no reply. As previous research and the sub-studies included in this dissertation have shown, being part of a research community is a crucial factor when determining doctoral satisfaction and well-being, which is why different participation options ought not be ignored. Hopefully the unexpected but rapid switch to extensive online learning and teaching in spring 2020 will improve the situation with distance participation and online learning opportunities in the future.

Clearly, it is impossible to exhaustively explain why specific social practices, such as doctoral education, are exactly the way they are in specific national contexts, such as Finland or in non-traditional settings, such as CERN. However, based on the above questions and examples I argue that the least that different social actors and institutions involved in doctoral education can do from time to time is to critically re-examine if they have all the available research- or

experience-based knowledge in their use. If not, could they easily acquire it by consulting those who do, before making decisions affecting doctoral researchers and their work?

6.2 Nexus analyst as an activist researcher: the ways to facilitate change

As we also pointed out in Article IV, not everyone is necessarily willing to accept "social change" as a specific objective or scholarly research (Scollon & Scollon, 2004). This holds true especially for many coming outside of humanities or social sciences, as discussed in Chapter 3.2.2 in relation to how different disciplines understand "knowledge". As Scollon and Scollon (2004), Harvey (1996), and Glansdorff and Prigogine (1971) all argued, however, inquiry and asking questions is exactly where practice and social change stem from. From this point of view nexus analysis—as well as this dissertation—is an "intervention". In this work, this has manifested in several concrete ways, which are discussed next.

Changes and individuals: Is doing a doctorate a viable path forward?

In 2017, after I had been a doctoral researcher for two years myself, I began providing informal guidance to master students and other doctoral researchers by using my own experience and research-based knowledge on doctoral education and complex mobilities. The first (master) student I helped in making a mobility decision. The second and third international master students I had several discussions with related to doctoral studies; whether doing a doctorate is a good idea in the first place, the application process, the funding, supervision, methodologies, and other relevant issues that one needs to know at the beginning of one's studies. Both of them were accepted as doctoral researchers in Finnish universities in 2019. I also had a discussion with a doctoral researcher about the benefits and challenges of an article-based dissertation. Finally, I helped a prospective doctoral researcher with their research plan by providing comments on several drafts, giving them some tips on what to take into account when choosing a supervisor, and having a discussion on how to establish a writing group.

Changes within CALS

As I have been a doctoral researcher in the same department where I generated part of the data, it was fairly easy for me to apply my research-based knowledge throughout my studies whenever there was a chance to take part in the developmental activities in the department. First, after implementing the writing clinic survey (Article I) in spring 2017 I sent out the improvement suggestions to those who were in charge of the writing clinic activity at the time. Second, when general feedback about doctoral studies was collected in 2018, I sent out my

suggestions. In these suggestions I aimed at providing both my individual opinion as a doctoral researcher but also a more general view based on my fieldwork observations that I had made until that point. In the survey of Article I, we also asked which topics ought to be covered in the writing clinic in the future. I forwarded these wishes to the organisers of the writing clinic.

In 2018 CALS purchased a table microphone to replace the two hand-held microphones used in the clinic. After this, most technological difficulties disappeared entirely and since then participating at distance has been much smoother. I also presented the results of Article I at a CALS doctoral seminar in November 2018. This spawned a lively discussion among supervisors and doctoral researchers of the department about the writing clinic activity, which has since been developed further, both technologically and content-wise. Finally, as I was finalising this work in June 2020, I also offered to share my overall findings of the present study at a CALS doctoral seminar in September. The seminar time and date have now been confirmed.

Changes within the University of Jyväskylä

While finalising the manuscript of Article II, I organised a meeting with JyU's graduate school coordinator to make sure I had understood everything correctly related to the university's doctoral education. I am planning to organise a meeting with the graduate school coordinator as well as others in charge of planning JyU's doctoral education activities during fall 2020, to share the findings of this dissertation, connect it to the findings of the peer-mentoring pilot, and provide some ideas how doctoral education at JyU could be improved.

Another endeavour I have been involved with since 2017 is a peer-mentoring pilot project and study, implemented at JyU during the academic year 2017–2018. Because of my interest in doctoral education, I was asked to join the pilot as a project researcher to conduct interviews and participate in writing the two articles that eventually resulted from the pilot. The pilot itself had two groups, both of which had 6–7 participants: two senior scholars and 4–5 doctoral researchers from different faculties and from different stages of doctoral studies. The groups met four times during the academic year, twice in autumn and twice in spring. During the meetings, the participants were allowed to discuss whatever they wanted. The topics ended up covering a vast array of issues, such as supervision, publishing, mobility, and well-being. According to the results, the pilot was extremely successful (see Aarnikoivu et al. forthcoming; Nokkala et al., forthcoming*)*: The participants were particularly happy with the multidisciplinary aspect of the groups, as well as sharing their experiences, worries, and wishes regarding their doctoral journey. Since the pilot finished, the overwhelmingly positive results of the study have been presented on several occasions, including the JyU management. In fall 2020, JyU plans to launch multidisciplinary peer-mentoring groups for those who are interested in participating in them.

Changes within discipline

As I was not affiliated with CERN in the same way as with CALS, the change there has been challenging to address. This was also because the CERN participants were affiliated with universities around Europe, where I had no contacts to. For this reason, I decided to think through ways in which to impact the physics community instead. A promising start for this change took place in September 2019 when I received an invitation to talk about academic writing to a group of early-career physicists at CERN. The talk was extremely well received. The audience members admitted that writing is something that is not generally talked about during doctoral studies or later, which is why they considered writing very difficult. This was not surprising to me: Before the event I had contacted five of their senior colleagues (all of whom I had met before), asking for some further advice on academic writing in physics specifically. None of them replied. Despite of this, I received positive feedback after my talk, and since then many of the audience members have reported that they have kept my advice in mind while writing their articles and theses.

Of course, this small group was only a tiny fragment of all the doctoral researchers at CERN, and even a tinier one within physics as a discipline. The social actors who can affect the discipline are the one representing it but also institutional actors who are in charge of planning doctoral curricula. Therefore, the questions presented earlier in this chapter are relevant also when considering disciplinary change.

Changes within wider communities

Perhaps the most far-reaching change I have been involved in is the revival of ECHER, the early-career higher education researchers' network[16]. Originally, ECHER was established in at an international higher education conference which took place in Reykjavik in 2011. After its founding members became more senior members of academia, the activities stagnated for some time. However, in 2017 at a CHER (Consortium of Higher Education Researchers) conference, which took place in Jyväskylä that year, there was a suggestion to add an ECHER representative to the CHER board. At the end of 2018, the person who was chosen as the representative contacted a small group of people, suggesting to establish ECHER blog; a platform for early-career higher education researchers where they could discuss topics that are useful for others sharing the same interests. I expressed my will to collaborate and became one of the two lead editors of the blog.

We launched the blog in December 2018. Between the launch and June 2020, there have been 61 published posts in total. In addition to the blog, we established a formal, yet free ECHER membership in June 2019. By June 2020, there were 210 members from 46 different countries who had joined. The first official event of the "revived ECHER" took place in August 2019 in Kassel,

16 https://www.echer.org/

Germany, where four ECHER members organised an "academic writing clinic" for early-career scholars. The clinic followed a similar idea to the one of CALS writing clinic discussed in Article I, though it was slightly longer (4 hours) and consisted of two separate parts. A total of 23 participants took part in the event.

The event in Kassel was also a starting point for a larger project: "Everybody struggles with writing, everybody gets rejected"[17]. In this project we contacted senior higher education researchers to share their ideas on academic writing. By June 2020, 37 researchers or editors of different journals had shared their thoughts. This, in turn, sheds light on doctoral writing and publishing within the field of higher education research specifically, but is applicable in other HASS fields as well.

The long-term goal of ECHER is to establish a worldwide network of early-career higher education researchers where its members would support each other in a way that is not currently done beyond institutional or national limits. Thus far we have been contacted by people who have expressed their willingness to do something for the network or the blog but also shared their feelings of loneliness as doctoral researchers, having no other community to interact with. We addressed this concern during the most critical months of COVID-19, when we began organising regular zoom meetings for the members. Between March 2020 and May 2020 these meetings (10 in total) connected dozens of early-career researchers together to share their ideas on a variety of topics. Many expressed their gratitude for being able to attend such events during times when most could not access physical offices. This why also the concept of "a doctoral researcher community" should be reconsidered, as technology enables forms of communities which were not possible 20 years ago.

Some of the following changes, such as ECHER, happened in a relatively short period of time, but most of them were a result of a longer process—either this dissertation project itself or collaborations that were linked to it. It should also be pointed out that not all change has most likely yet occurred, as I intend to continue working on these topics also after this work is published.

6.3 Curiosity, reflexivity, humility, and openness: the analyst's account

> "In the fall of 2015 I showed my recently accepted research plan to a friend of mine. He carefully took his time, silently reading the four-page plan, after which he concluded: 'So, you're doing a PhD on doing a PhD'. As brief and simple as it may sound, it was an accurate conclusion." (Aarnikoivu, 2016, p. 47.)

These were the words that began the first scientific article I ever published. Although I did not include the article in the present work, it represented a solid starting point for a project where I knew I was going to have a very unique role—

17 https://www.echer.org/everybody-struggles-with-writing/

a doctoral researcher studying other doctoral researchers. Doing doctoral work—or qualitative research in general—can, and even should be non-linear (Ennser-Kananen et al., 2018), or even messy. Plans made during the early stages of one's research process rarely hold until the very end. However, by reflecting upon one's choices—or unplanned turns of events—it is possible for the researcher to incorporate "the messiness" into a logical and necessary part of the process. Although everything that "went wrong" is not typically reported along with study results, it is a natural part of ethnographic research (Naveed et al., 2017), such as nexus analysis, where the researcher's own role and positionality play a crucial role. Reflexivity in writing can also function as an active attempt to think differently and shed light on taken-for-granted issues in research, which also helps the doctoral researcher after completing their degree (Forbes, 2008).

Above I have explicated what type of change I succeeded in facilitating during my own messy journey; individual, institutional, and change within a wider community of early-career researchers. To reflect on the change and my role in it, I draw on ideas by Green (2016), who has explored *how change happens*. According to Green (2016), to be able to ask the right kind of questions and to "dance with the system" (p. 8), four important characteristics are required: curiosity, reflexivity, humility, and openness to different ways of seeing the world. As I stated in the Preface, to be able to find answers we first need good questions, and good questions are difficult to formulate without curiosity. When I began the present work, I was curious towards exploring the precarious situation of early-career researchers. As the work progressed, I became more and more curious about more and more topics, which sometimes felt overwhelming: How could I possibly attend all the interesting conferences and seminars, read all the relevant literature, or participate in all the projects I found fascinating? Obviously, I could not, which is why prioritising my time and energy—deciding what is *essential* (McKeown, 2014) and learning how to say "no" was extremely important throughout these five years. At times I succeeded quite well, at other times I did not. Having to "pick my curiosity battles" will likely to continue, as it is a continuous challenge for all researchers who are driven by their curiosity towards the world around us.

What I felt I succeeded in fairly well, was to keep reflecting on my research *on* doctoral education while being a doctoral researcher in the very same system. For example, I constantly had to keep in mind that what I was experiencing during my doctoral studies did not mean that others were experiencing as well. If something was easy, difficult, or meaningful for me, it did not mean that it would also be easy, difficult, or meaningful for others. My own *historical body* has also had an impact on the course of the analysis. As a first-generation, white, female, and full-time distance doctoral researcher who grew up and was educated in a Nordic welfare state, I have most certainly paid attention to some aspects of doctoral education that might have been missed by those who do not represent any of these groups. However, the most challenging aspect for me has been to consider what is it that *I* have missed because I represent a specific kind of a doctoral researcher or because I have been so invested in the studied topic?

And, if I have missed something, could that have been avoided somehow? While I cannot answer these questions, I acknowledge that it is possible that another doctoral researcher with a completely different kind of a historical body might have conducted a very different kind of nexus analysis on doctoral education, although they might have ended up with similar results.

While both curiosity and reflexivity have been heavily present during the research process, the characteristic I have learned to appreciate the most is humility, "an antidote to the hubris that sometimes afflicts the activist bubble" (Green, 2016, p. 77). As Green (2016) stated, humility reminds the researcher that their activist efforts might not be as influential as political or economic changes, no matter how well-planned and important. I acknowledge that a single decision by a European or Finnish policy-maker could improve the lives of doctoral researchers more than anything I could ever do. However, that does not mean individual doctoral researchers should sit idle and do nothing.

Another dimension of humility is to learn the limits of your own skills or knowledge. Although still regularly suffering from the imposter syndrome, every now and then it has been very tempting to fall into the kind of thinking that some approaches or ways to do things are the only ones that work. Obviously, that is not the case. There are many approaches and reasons to make specific choices. Trying to understand why other relevant social actors of doctoral education act in the way they do is something I will pay careful attention to in my future work. This aspect of humility is connected to the final characteristic Green (2016) mentions: openness to different ways of seeing the world. Needless to say, openness should not only guide one's research but all actions one does in relation to the surrounding, social world.

As Green (2016) points out, however, these four above-mentioned characteristics are only a small part of how change happens. One also needs to analyse the precedents of change, the nature of the desired change, what kind of power relations are involved, what approach could be the best, and how we could learn about the impact of our actions. Although discussing all these issues in detail goes beyond the scope of this thesis, there are a few things to be said about them here. Looking back, there were a few issues which might have strengthened the change:

1. Making a clearer plan for what kind of change I was aiming at specifically: Informal/formal? Individual/collective/systemic?
2. Making a more detailed analysis of who has the power—and what kind of power (visible/invisible/hidden?)—at the start of the research process might have resulted in even more far-reaching change.
3. Reflecting upon my own strengths as a change-maker and who my "partners" and "allies" could potentially be earlier in the research process. Luckily, I have managed to identify these during the last two years of this project.

It can be difficult, however, to fully plan one's actions beforehand, because facilitating change is rarely linear (Green, 2016). Furthermore, the systems or phenomena one wants to change are usually highly complex, which is why change might happen extremely slowly. This also applies to doctoral education.

7 CONCLUSION

This nexus analysis began in 2015 with a simple question, driven by curiosity: Is there something that research on today's doctoral education has not been able to address, or something it has missed? The question was based on my personal observations in my daily life and work, and the first steps I took when engaging the nexus of practice of doctoral education. However, as discussed in Chapter 4, witnessing two cases or events does not yet confirm anything but it does offer a fruitful starting point for a research project (Becker, 2014).

In this dissertation I have systematically studied doctoral education as a form of social action by using a qualitative mode of inquiry—nexus analysis. I have followed its three stages, created by Scollon and Scollon (2004): First, I engaged and then navigated the studied nexus of practice—doctoral education—in two highly different disciplinary settings, at CERN and CALS, where I interviewed twelve doctoral researchers and three supervisors in total, and generated a large amount of other data for the purposes of four sub-studies. All these studies approached the focal topic from a slightly different angle: interaction order of a regular writing seminar (Article I), the tension between international doctoral researchers and the institution (Article II), the spatiotemporal dimension of doctoral education (Article III), and the wider context connecting discourses and groups involved in complex mobilities (Article IV). In each of these studies I zoomed into the groups of social actors that had been largely ignored in previous literature, expanding the analytical scope with which doctoral education and practices had previously been approached and examined. Moreover, I have applied nexus analytical tools differently in each study, increasing my understanding of the studied topic but also nexus analysis as a mode of inquiry.

I have provided some answers and suggestions regarding how to rethink and prepare for hybrid doctoral seminars where there are participants both physically present and at distance (Article I). I also have demonstrated how nexus analysis could be utilised in the research on international doctoral researchers (Article II) and provided insight on how it is to conduct one's doctoral research in unique, state-of-the-art settings while struggling to manage

with daily activities in an unfamiliar environment (Article III). Finally, I have shown how nexus analytical approach can be used to combine four different disciplines to examine "the bigger picture" of complex mobilities and migration (Article IV).

To some, these four studies are perhaps not enough to confirm anything any more than my original observations. However, making generalisations of confirmations based on a five-year qualitative study was not my goal at any point. The goal was to find out whether there was something that researchers interested in doctoral education were potentially overlooking or missing—if they were asking the right questions in the first place. Based on the findings and observations of the four sub-studies, I have illustrated that there are some power-related issues that might benefit from further inquiry and exploration, so that doctoral curricula and programmes could be improved both in Finland and in Europe.

As I clarified at the beginning of this dissertation, in Chapters 1 and 2, the purpose of this work has been to serve the needs of two different audiences: scholars in applied language studies and in higher education research. Undoubtedly, some parts of this study have been more understandable or even self-evident to one of these audiences, whereas others have been more complex. However, as I have demonstrated, nexus analysis has been able to bring these two audiences together to rethink and address the challenges of contemporary doctoral education. Some of these challenges are more language-focused than others. They were discussed in Article I, where the language of the CALS writing clinics played an important role regarding who was participating and who was not. Language is a crucial factor in the lives of international doctoral researchers, as I discussed in Article II. In Article III, I used a sociolinguistic concept of *scales* (Blommaert, 2007) to shed light on the spatiotemporal dimension of doctoral education, which had previously been primarily studied by non-linguists. Finally, Article IV showed how combining the forces of four disciplines, including applied language studies, can provide powerful analytical insights on a topic which concerns every corner of the globe at the moment—migration and mobilities, which are also heavily connected to language-use.

Nexus analysis allows scholars from two or more fields of research to come together in novel and sometimes even quite unexpected ways. It allows us to see issues and viewpoints that their respective disciplines might not typically take into account. This, of course, is most likely what HASS-focused interdisciplinary research generally aims to do, in which sense nexus analysis is not unique. However, nexus analysis can provide a more holistic and critical mode of inquiry compared what most scholars are used to, as it is solely focused on forming new questions and actively changing the studied nexus of practice. These kinds of approaches are rare, and not always welcomed by everyone, as I have also witnessed during the research process. For example, a specific criticism I have run into at regular intervals during the research process is the lack of research questions in nexus analysis. While great questions are also needed, it is important to carefully consider the moment *when* to ask those questions, and how

that moment affects the results. I have not formulated any specific research questions at the start of the process as a whole, or in any of the four sub-studies, with the exception of Article I, where my co-author and I formulated two questions half-way through the study. While this type of approach is not accepted by many scholars, the question I would like to present to those who do formulate research questions prior to a study: Where did those questions come from? What was left in the shadow simply because the focus was determined before any data was generated? What would *I* have missed in this nexus analysis, if I had formulated research question back in 2015, or at the beginning of each study? While it is obviously difficult for me to answer the final question, it is nonetheless a question that every scholar—early-career or not—ought to ask themselves every now and then.

During this study I have also initiated and been involved in various interventions regarding *change*. Alongside the questions I formulated and the results of each sub-study, this is the third core contribution of this work: Traditionally, research and practices of doctoral education represent social action which is mediated *top-down*, rather than stemming from doctoral researchers themselves (i.e. *bottom-up*), who, as shown in the four sub-studies, have quite limited chances to impact the nexus of practice. This work represents the opposite: activist research conducted by an early-career scholar in settings where critical and inductive modes of inquiry are rarely seen, addressing issues they themselves are heavily affected by. Nexus analysis allows a doctoral researcher to present difficult questions to those in power, rather than the other way around.

What nexus analysis does not easily allow the analyst to do is to focus on large data sets. To conduct a comprehensive nexus analysis on any topic requires a tremendous amount of resources, such as time and funds. That is why it is a challenging mode of inquiry for an individual researcher, especially if they are at an early stage in their career. This has remained a constant source of concern throughout this work. However, I have also acknowledged that every river needs to start from somewhere and that smaller, yet rich and versatile datasets can bring valuable and clear—although perhaps modest—insight to scholarly discussions and debates that have been going on for years, or even decades.

At times this analysis might have made it sound as if doctoral education is in a crisis and lacking hope. The situation is by no means that grim. Even though there are critical aspects in doctoral education which need addressing—preferably sooner rather than later—, there have also been positive developments. Examining one of the settings of this study, JyU, the criteria for selecting doctoral researchers have become much clearer since I began my doctoral studies in 2015. There is a standardised application form, which did not exist back then. At the Faculty of Humanities, the doctoral staff positions are now regularly advertised. The positions are also longer, which makes it easier for international doctoral researchers to take care of immigration issues with Finnish authorities. Also, the university website is now more bilingual (Finnish/English) than before, making it easier for non-Finnish speaking doctoral researchers and faculty to navigate.

In spring 2019 I attended a search conference in Copenhagen, which was a kick-off conference for the project "European universities—critical futures"[18]. During the event, the participants were asked to engage in an exercise called *keep, drop, create*. We had to discuss, which features of higher education we would keep, which we would discard, and which ones we would introduce. A similar exercise could be done to doctoral education to imagine its future, based on this nexus analysis. Based on my analysis, I argue that features that ought to be *kept* are the increasing forms of support, particularly the ones focusing on *peer learning* and *communities of practice*, presented in Chapter 3.2.2. Furthermore, the aim for equality, as specified by the Bologna process and the Salzburg II principles (see Chapter 3.1), is generally a desirable approach to take, although the discourse of *harmonisation* also carries risks in terms of differing doctoral researcher backgrounds. The issues I would *drop*, in turn, are relying on the same questions, methodologies, and methods time after time: There are too many studies which describe challenges and too few that try to solve them by taking an activist role in the studied context. Moreover, treating doctoral researchers within the same university or even within the same department as a homogenous mass will most likely not serve the goals of either the institution or the individual researchers.

What ought to be *created* are flexible structures and policies which enable (rather than constrain) doctoral studies in a variety of ways, depending on the person's historical body. As Elliot (2020) described at a recent webinar, doctoral researchers are not "brains on stick"[19], but individuals with their individual hopes, dreams, and goals—something that also applies to the wider conversation on international students during the COVID-19 pandemic (see Jordan et al., 2020; Madhusoodanan, 2020). Finally, what need to be created are more imaginative ways to address the questions presented in this study: What are we missing or overlooking? One such way I would suggest is not only *sociological* (Mills, 1959) but *methodological* imagination (Fine, 2018), and not only in higher education research and applied language studies but in any field that is attempting to make sense of any kind of social action. It is important to keep developing our ways of thinking, doing, and learning, rather than trying to act as gatekeepers to those that are trying to already do that. To summarise this analysis, I would encourage all researchers, regardless of their career stage or disciplinary background, to be more experimental, creative, and braver when crafting their research designs. This does not necessarily mean they have to choose nexus analysis; there are plentiful of methodologies and approaches which can produce great results. By doing this, we will hopefully be able to shape doctoral researchers' lives and futures for the better, as well as the future of society as a whole.

18 https://projects.au.dk/european-universities-critical-futures/
19 As her inspiration, Elliot (2020) used the following comic strip from the PhD Comics: http://phdcomics.com/comics/archive_print.php?comicid=1126

YHTEENVETO (FINNISH SUMMARY)

Tutkimuksen tausta

Tämä väitöstutkimus tarkastelee tohtorikoulutusta sosiaalisena toimintana. Tohtoriopinnot koostuvat monenlaisista erilaisista toiminnoista, kuten esimerkiksi tutkimuskirjallisuuden lukemisesta, tutkimusrahoituksen hakemisesta, artikkelien tai monografian kirjoittamisesta tai konferenssiesitelmien pitämisestä. Tohtorikoulutus ja -opinnot ovat kuitenkin myös paljon muuta. Tohtoriopintojensa aikana väitöskirjatutkija syventyy valitsemaansa aiheeseen, rakentaa tutkimus- ja yhteistyöverkostoja, oppii työelämän kannalta olennaisia siirrettäviä taitoja sekä vie päätökseen projektin, joka vaatii tarkkaa suunnittelua, erilaisten vaihtoehtojen punnitsemista ja useiden vuosien aherrusta.

Vaikka tohtoriopinnot voivat olla monelle hyvinkin positiivinen kokemus, useimmat väitöskirjatutkijat kohtaavat tohtoripolullaan erilaisia haasteita, kuten rahoituskausien katkeamista, ongelmallisia ohjaussuhteita tai hylättyjä artikkelikäsikirjoituksia. Näitä haasteita varten väitöskirjatutkijat tarvitsevat sekä muodollista että epämuodollista tukea. Vaikka tukea on usein saatavilla, monet tuntevat olevansa opintojensa kanssa umpikujassa. Tästä hälyttävänä merkkinä on esimerkiksi se, että väitöskirjatutkijoiden mielenterveyden ongelmat ovat maailmanlaajuisesti kasvussa (ks. esim. Barry ym., 2018; Levecque ym., 2017). Tähän saattaa osaltaan vaikuttaa akateemisen maailman koventuva kilpailu. Tohtorikoulutuksen muutokset heijastelevatkin yleistä korkeakoulupolitiikan kehityskulkua, josta tärkeimmät ovat viimeisten 20 vuoden aikana esiin tulleet julkisjohtaminen, managerialismi sekä akateeminen kapitalismi (ks. Cantwell & Kauppinen, 2014; Marginson, 2016; Välimaa ym., 2016). Tohtorikoulutuksen yhteydessä on mainittava myös niin sanottu Bolognan prosessi, joka tähtää eurooppalaisen korkeakoulutuksen yhteneväisyyteen ja vertailtavuuteen.

Koska väitöskirjatutkijoiden haasteet näyttävät tutkijoiden ja päätöksentekijöiden suuresta kiinnostuksesta huolimatta pitävän pintansa, tohtorikoulutuksen tutkijoilla on käytännössä kaksi vaihtoehtoa: joko hyväksyä haasteet ja koittaa selvitä niistä ongelma kerrallaan, tai koittaa löytää uusia lähestymistapoja, joilla ongelmiin voisi tarttua aiempaa tehokkaammin. Mitä emme ole aiemmin huomanneet? Olemmeko ylipäätään kysyneet oikeita kysymyksiä? Tätä pohdin vuonna 2015, kun aloitin oman väitöskirjaprosessini ja päätin tutkia tohtorikoulutusta. En kuitenkaan tiennyt, millä voisin tarttua sen monisyisiin haasteisiin. Lopulta päädyin valitsemaan tutkimusotteekseni *neksusanalyysin* (Scollon & Scollon, 2004), joka yhdistää diskurssintutkimuksen etnografiaan ja keskittyy pelkän kielenkäytön sijaan myös sosiaaliseen toimintaan (engl. *social action*) sekä eritoten siihen, miten tutkittavaan aiheeseen voisi *tuoda muutosta*.

Tämän tutkimuksen kontekstissa tohtorikoulutus on siis *neksus*, jossa erilaiset sosiaaliset toimijat (kuten väitöskirjatutkijat, -ohjaajat ja rahoittajat), paikat (kuten seminaarihuoneet, yliopistot, konferenssitilat) ja diskurssit (esim. kansainvälistymisestä) kietoutuvat yhteen. Tästä syystä niitä tulisi myös tarkastella

yhdessä eikä erillisinä siiloina. Aiempaa tutkimusta tohtorikoulutuksesta ei toki puutu. Suurin osa tähänastisesta tutkimuksesta keskittyy kuitenkin varsin kapeisiin ilmiöihin, kuten ohjaukseen tai kirjoittamiseen. Tämä ei ole yllättävää, sillä usein tutkimuksen aiheet tulee rajata tarkasti, jotta tiettyyn aiheeseen pystyisi pureutumaan mahdollisimman tarkasti ja syventävästi. Kuitenkin huomioiden yllä luetellut väitöskirjatutkijoiden haasteet, on yllättävää, että tohtorikoulutuksen tutkimiseen ei ole juurikaan kehitelty holistisia teorioita tai malleja, jotka yrittäisivät selittää tohtorikoulutusta laajempana kokonaisuutena. Muutamia tämänkaltaisia malleja löytyy (ks. Cumming, 2010; Holdaway, 1996; McAlpine & Norton, 2006; Thorlakson, 2005), mutta niissäkään ei oteta huomioon tohtorikoulutuksen kaikkia ulottuvuuksia, kuten virallisen tohtorikoulutuksen ulkopuolelle ulottuvaa aikaa ja paikkoja (ks. Artikkeli III). Työssäni yhdistän siis sen, mitä on yleensä tutkittu (väitöskirjatutkijoita, ohjaajia, kirjoittamista), siihen, mikä on jäänyt vähemmälle huomiolle—miten nämä yksittäiset tutkimusaiheet linkittyvät toisiinsa.

Aineisto ja analyysi

Neksusanalyysille on hyvin tyypillistä, ettei tutkimusprosessin alussa luoda tarkkoja tutkimuskysymyksiä. Sen sijaan tutkija lähtee kentälle silmät auki, mahdollisimman avoimin mielin ja ilman ennakkoluuloja. Tämä varmistaa sen, ettei tutkija tee vahvoja olettamuksia jo ennen kuin aineistoa on kerätty ja siten jätä jotain tärkeää huomioimatta. Systemaattinen ja kattava analyysi syntyy sen sijaan kolmesta teoreettisesta käsitteestä sekä kolmesta käytännön vaiheesta. Teoreettisten käsitteiden osalta sosiaalinen toiminta koostuu neksusanalyysin periaatteiden mukaisesti kolmesta osasta: toimijahistoriasta (*historical body*), vuorovaikutusjärjestyksestä (*interaction order*) ja paikan diskursseista (*discourses in place*). Nämä osiot ovat linkittyneitä sekä toisiinsa, että laajempaan, tutkittavaan ilmiöön. Niitä havainnoimalla tutkija pystyy muodostamaan yhteyksiä sellaisten asioiden välille, joiden ei muuten huomattaisi olevan kytköksissä toisiinsa. Yksi esimerkki tällaisesta yhteydestä on esimerkiksi kielen ja vallankäytön välinen suhde tohtoriopinnoissa: Suomessa väitöskirjatutkijoita kutsutaan usein *tohtorikoulutettaviksi* tai *tohtoriopiskelijoiksi*, jotka ovat termeinä melko passiivisia ja viittaavat siihen, ettei tutkija ole vielä ”valmis” (Roitto & Impola, 2019). Todellisuudessa kukaan tutkija ei koskaan ole valmis. Lisäksi yliopistot painottavat usein kollegiaalisuutta, tasa-arvoa, ja yhteisöllisyyttä, minkä vuoksi on erikoista, että osa tutkijoista kategorisoidaan *opiskelijoiksi* – status, joka saattaa aiheuttaa ongelmia esimerkiksi asuntolainaa hakiessa (Roitto & Impola, 2019). Tämän vuoksi Tieteentekijöiden liitto suosittelee nimikkeitä *nuori tutkija* tai *väitöskirjatutkija*, etenkin silloin kun tutkija on työsuhteessa yliopistoon.

Teoreettisten käsitteiden lisäksi neksusanalyysiin kuuluu kolme käytännön vaihetta: neksukseen kiinnittyminen (*engaging*), neksuksessa navigoiminen (*navigating*) ja sen muuttaminen (*changing*), joihin Scollon ja Scollon tarjoavat tarkan kenttäoppaan (2004, s. 152-178). Ensimmäisessä vaiheessa tutkija kartoittaa tut-

kittavan aiheen olennaiset sosiaaliset toimijat, paikat, tapahtumat sekä toiminnot, jotka vaikuttaisivat olevat keskeisimmät tutkittavan aiheen kannalta. Nämä havainnot ohjaavat neksusanalyysin toista vaihetta, navigointia, joka on neksusanalyysin ajallisesti pisin vaihe. Tärkeää tässä vaiheessa on se, että mikäli tutkija huomaa, ettei jokin hänen kartoittamistaan tekijöistä vaikutakaan olennaiselta, hän ottaa askeleen taakse päin ja arvioi kokonaisuutta uudelleen (engl. *zoom in* vs. *zoom out*). Tällä tavalla tutkija ei ikään kuin jää jumiin tiettyyn toimijaryhmään tai toimintoon. Tämä puolestaan auttaa neksusanalyysin viimeistä vaihetta, *muutosta*: Tutkija ei pelkästään tutki ja raportoi, vaan pyrkii myös omalla toiminnallaan tuomaan muutosta havaitsemiinsa epäkohtiin. Tämä tekee neksusanalyysistä niin sanottua aktivistitutkimusta.

Tutkimukseni toteuttamiseksi keräsin aineistoa tekemällä niin sanottua sisäpiirietnografiaa kahdessa eri paikassa: CERNissä (Euroopan hiukkasfysiikan tutkimuslaitos) Sveitsissä/Ranskassa sekä SOLKIssa (Soveltavan kielentutkimuksen keskus) Jyväskylän yliopistossa. Molemmat aineistonkeruujaksot kestivät 18 kuukautta. Aineisto koostui nauhoitetuista ja litteroiduista haastatteluista, kenttähavainnoista ja valokuvista, kyselytutkimuksesta, asiakirjoista ja raporteista. Sekä CERNissä että SOLKIssa seurasin neksusanalyysin kolmea käytännön vaihetta, mikä johti yhteensä neljään osatutkimukseen.

Tutkimuksen keskeiset tulokset

Jokainen työni osatutkimus tarkasteli tohtorikoulutusta eri näkökulmasta. Lisäksi hyödynsin neksusanalyysiä jokaisessa osatutkimuksessa eri tavoin. Ensimmäinen osatutkimus keskittyi SOLKIn kirjoitusklinikkatoimintaan vuorovaikutusjärjestyksen näkökulmasta. Tutkimme, millaisia ongelmatilanteita väitöskirjatutkijoiden monikanavaiseen seminaaritoimintaan sisältyi sekä sitä, mitä ongelmatilanteista aiheutui. Analyysin perusteella ongelmatilanteet liittyivät teknologiaan, toimijoihin sekä kieleen. Tilanteet veivät aikaa pois käsiteltävältä asialta, vaikeuttivat osallistumista, estivät sen kokonaan, ja vaikuttivat osallistumisen mielekkyyteen tai koettuun hyödyllisyyteen. Tutkimus ja sen tulokset siirtävät huomion aiotusta sosiaalisesta toiminnasta siihen, mitä tapahtuu, kun se jostain syystä estyy. Tulokset auttavat suunnittelemaan sitä, miten monikanavaista seminaaritoimintaa voitaisi tohtoriopinnoissa sekä muussa yliopisto-opetuksessa kehittää. Tämä on erityisen tärkeää nyt, kun verkko-opetuksesta on nopeassa ajassa tullut arkipäivää kautta maailman.

Toinen osatutkimus pureutui erityisesti kansainvälisiin väitöskirjatutkijoihin. Tutkimuksessani esittelen, miten neksusanalyysi voisi tarjota teoreettiset ja metodologiset työkalut kansainvälisten väitöskirjatutkijoiden haasteiden tarkasteluun ja niihin tarttumiseen. Aineistona oli Jyväskylän yliopistossa toteutettu tohtorikoulutuksen arviointi ja siihen liittyvä koontitapahtuma, joka järjestettiin keväällä 2016. Kiinnitin analyysissäni erityistä huomiota siihen, mitä arvioinnin aikana *sanottiin*, ja mitä sen aikana todellisuudessa *tehtiin*. Tulosten perusteella näytti siltä, etteivät institutionaaliset diskurssit olleet linjassa sen kanssa, mitä

kansainväliset väitöskirjatutkijat kokivat jokapäiväisessä elämässään. Ei myöskään ollut täysin selkeää, kuka arviointia koskevat päätökset oli tehnyt, miten päätökset oli tehty, ja miksi arviointi oli päätetty toteuttaa siten, kun se oli toteutettu. Miksi esimerkiksi kansainvälisiä väitöskirjatutkijoita ei juurikaan mainittu yllä mainitussa tapahtumassa? Vaikka pystyin saamaan osan näistä tiedoista jälkikäteen, niihin olisi ollut tärkeää kiinnittää huomiota jo ennen arviointia, jotta päätösten vaikutukset itse arviointiin ja tohtorikoulutukseen pystyttäisi arvioimaan paremmin. Tämä on tärkeää, sillä tohtorikoulutuksen kehittäjillä ja väitöskirjatutkijoilla on kuitenkin lähtökohtaisesti sama päämäärä—tehdä tohtoroitumisesta mahdollisimman sujuvaa.

Kolmannessa osatutkimuksessani hyödynsin neksusanalyysin teoreettisten käsitteiden lisäksi *skaalojen* käsitettä (ks. Blommaert, 2007; Blommaert ym., 2015). Tutkimuksen lähtökohtana oli tohtorikoulutusta käsittelevien holististen mallien puute, johon tarjosin vastauksena neksusanalyysin ja skaalojen yhdistämistä. Tämä mahdollisti tohtorikoulutuksen tarkastelun *kerrostuneena* eikä lineaarisena ilmiönä. Tutkimuksen aineistona oli CERNissä keräämääni etnografinen aineisto. Tulokset osoittivat, että suurin osa tohtoriopintoihin liittyvästä sosiaalisesta toiminnasta tapahtui useissa hyvin pienissä ja paikallisissa tiloissa. Lisäksi yksittäiset toiminnot olivat usein hetkellisiä ja yksilöllisiä. Näitä toimintoja kuitenkin ohjasivat korkeammat tahot: tutkimusryhmät, yliopistot, laitokset, ja rahoittajat, jotka sen sijaan ovat kollektiivisia, valtaa käyttäviä toimijoita. Tämä aiheutti jännitettä: Yksittäisten väitöskirjatutkijoiden tuli noudattaa yleisiä, objektiivisia säädöksiä ja ohjeita tohtoriopintojensa suorittamiseen, mutta jos säädökset olivat esimerkiksi tietyn valtion lakien mukaisia, saattoi se aiheuttaa ongelmia heille, jotka asuivat yhdessä maassa, olivat yliopiston kirjoilla toisessa, ja kävivät töissä kolmannessa. Näiden ”monimutkaisen liikkuvuuden” (ks. Artikkeli IV; Archer, 1995; Urry, 2007) tutkijoiden näkökulmasta yliopistojen kansainvälistymisen diskurssi vaikuttaa ristiriitaiselta: liikkuvuuteen kannustetaan, mutta alueelliset ja kansalliset säädökset tekevät siitä toisinaan vaikeaa. Tutkimuksen perusteella kysynkin: Voisivatko yliopistot tarjota yhä joustavampia tapoja opiskella ja työskennellä ajasta ja paikasta riippumatta? Mitkä tahot helpottavat/säätelevät/vaikeuttavat tohtoriopintoja ja väitöskirjatutkijoiden liikkuvuutta?

Viimeinen osatutkimus tarkasteli tohtoriopintoja osana suurempaa maahanmuuton ja liikkuvuuden ilmiötä. Tutkimuksessamme yhdistimme neljä eri alan maahanmuuttoa tai liikkuvuutta käsittelevää tutkimusprojektia neksusanalyysin käsittein. Analyysin perusteella väitämme, että useat tutkimusprojektiimme liittyvät ilmiöt esitetään usein yksinkertaisesti ja ilman kritiikkiä: liikkuvuus, maahanmuutto (erityisesti pakolaisten ja turvapaikan hakijoiden) ja kansainvälistyminen ovat sen sijaan monimutkaisia ja monisyisiä haasteita, joiden tarkasteluun tarvitaan sekä tutkimus- että kokemusperustaista tietoa, etenkin kun tehdään näitä haasteita koskevia päätöksiä. Näin ei kuitenkaan näyttäisi esimerkiksi Suomessa usein olevan. Mikäli tilanne jatkuu samanlaisena, tulee maahanmuuton ja liikkuvuuden haasteiden ratkominen olemaan hankalaa myös jatkossa.

Osatutkimusten toteutuksen lisäksi olin myös mukana tuomassa muutosta tohtorikoulutukseen yksilötasolla, instituution tasolla sekä laajemmassa, maiden rajat ylittävällä tasolla. Keskustelin tohtoriopintojen tekemisestä usean niitä harkitsevan tai ne juuri aloittaneen maisteriopiskelijan/väitöskirjatutkijan kanssa, tarjoten heille sekä omaa tutkimus- että kokemusperustaista asiantuntijuuttani. Lisäksi keskustelin tohtorikoulutuksen arvioinnista ja toisesta osatutkimuksestani Jyväskylän yliopiston tohtorikoulutuksesta vastaavan koordinaattorin kanssa, ja syksyllä 2020 aion käydä lisää vastaavia keskusteluja yliopisto- ja laitostasolla. Kolmanneksi, olen ollut mukana nuorten korkeakoulututkijoiden verkoston, ECHERin elvyttämisessä: joulukuusta 2018 saakka olen ollut ECHER-blogin toinen päätoimittaja, ollut mukana järjestämässä online- ja offline-tapahtumia verkoston jäsenille, ja ollut muutenkin aktiivisesti verkoston toiminnassa mukana. Verkostolla on tällä hetkellä yli 200 jäsentä ympäri maailmaa.

Väitöskirjani yhteenvedon ja neljän osatutkimuksen perusteella neksusanalyysi vaikuttaisi tarjoavan lupaavan holistisen, induktiivisen tutkimusmenetelmän tohtorikoulutuksen tutkimukseen sellaisesta näkökulmasta, joka ei tähänastisessa tutkimuskirjallisuudessa ole saanut juurikaan huomiota. Se mahdollistaa tutkijan aktiivisen roolin ja tarjoaa tehokkaat analyyttiset työkalut, joiden avulla tutkija pystyy tuomaan muutosta tutkittuun ilmiöön. Lisäksi neksusanalyysin avulla yksittäinen väitöskirjatutkija pystyy tarkastelemaan tohtorikoulutusta alhaalta ylöspäin, mikä haastaa tohtorikoulutuksen olemassa olevat voimasuhteet, portinvartijat sekä tohtorikoulutukseen liittyvän päätöksenteon. Tulosten perusteella ehdotankin, että tohtorikoulutuksen sosiaaliset toimijat, kuten tutkijat, olisivat rohkeampia kokeilemaan erilaisia tutkimusotteita, jotka mahdollistavat muutoksen ja tutkijan aktiivisen roolin. Lisäksi kehotan tohtorikoulutusta koskevien päätösten tekijöitä arvioimaan kriittisesti, ketkä tällä hetkellä päätöksiä tekevät: ne, joilla on kokemusperustaista tietoa (tohtorikoulutuksesta), ne, joilla on tutkimusperustaista tietoa (tohtorikoulutuksesta), ne, joilla on molempia, vai ne, joilla ei ole kumpaakaan. Mitä useampi toimijoista kuuluu ensimmäiseen kolmeen ryhmään, sitä tehokkaammin tohtorikoulutuksen haasteita voitaisiin ratkoa, niin Suomessa kuin muualla.

REFERENCES

Aarnikoivu, M. (2016). "Not in my backyard but in my front room": A review of insider ethnography. *Tiedepolitiikka*, *41*(3), 47–56.

Aarnikoivu, M., Pennanen, M., Kiili, J., & Nokkala, T. (Forthcoming). *Multidisciplinary peer-mentoring groups facilitating change? A critical educational praxis perspective*.

Acatiimi (2013). *Want to become Adjunct Professor in Finland?* Retrieved from https://www.acatiimi.fi/4_2013/04_13_11.php

Acatiimi. (2017). *Rakkaalla jatko-opiskelijalla on monta nimeä*. Retrieved from http://www.acatiimi.fi/6_2017/14.php

Agné, H., & Mörkenstam, U. (2018). Should first-year doctoral students be supervised collectively or individually? Effects on thesis completion and time to completion. *Higher Education Research and Development, 37*(4), 669-682.

Ahola, S. (2007). Doctoral education in Finland: Between traditionalism and modernity. In S. Powell & H. Green (Eds.), *The doctorate worldwide* (pp. 29–39). McGraw-Hill Education.

Aitchison, C., & Lee, A. (2006). Research writing: Problems and pedagogies. *Teaching in Higher Education*, *11*(3), 265–278. DOI:10.1080/13562510600680574

Allen, M., Bourhis, J., Burrell, N., & Mabry, E. (2002). Comparing student satisfaction with distance education to traditional classrooms in higher education: A meta-analysis. *American Journal of Distance Education*, *16*(2), 83–97. DOI:10.1207/S15389286AJDE1602_3

Altbach, P., & de Wit, H. (2020). Postpandemic outlook for higher education is bleakest for the poorest. In *International higher education: Vol. Special Issue #102*. CIHE. https://www.internationalhighereducation.net/api-v1/article/!/action/getPdfOfArticle/articleID/2922/productID/29/filename/article-id-2922.pdf

Altheide, D. L., & Johnson, J. M. (1994). Criteria for assessing interpretive validity in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 485–499). SAGE.

Alvesson, M. (2003). Methodology for close up studies – struggling with closeness and closure. *Higher Education*, *46*(2), 167–193. DOI:10.1023/A:1024716513774

Anderson, T. (2017). The doctoral gaze: Foreign PhD students' internal and external academic discourse socialization. *Linguistics and Education*, *37*, 1–10. DOI:10.1016/j.linged.2016.12.001

Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press.

Asmar, C. (2005). Internationalising students: Reassessing diasporic and local student difference. *Studies in Higher Education*, *30*(3), 291–309. DOI:10.1080/03075070500095713

Atkins, L., & Wallace, S. (2012). *Qualitative research in education*. SAGE Publications Ltd. DOI:10.4135/9781473957602

Atkinson, P., Coffey, A., & Delamont, S. (2003). *Key themes in qualitative research: Continuities and changes*. AltaMira Press.

Ayres, L. (2008). Semi-structured interiew. In L. M. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods*. SAGE Publications, Inc.

Baptista, A. V. (2011). Challenges to doctoral research and supervision quality: A theoretical approach. *Procedia Social and Behavioral Sciences, 15*, 3576-3581.

Balaban, C. (2018). Mobility as homelessness. *Learning and Teaching*, *11*(2), 30–50. DOI:10.3167/latiss.2018.110203

Barry, K. M., Woods, M., Warnecke, E., Stirling, C., & Martin, A. (2018). Psychological health of doctoral candidates, study-related challenges and perceived performance. *Higher Education Research & Development*, *37*(3), 468–483. DOI:10.1080/07294360.2018.1425979

Bastalich, W. (2017). Content and context in knowledge production: A critical review of doctoral supervision literature. *Studies in Higher Education*, *42*(7), 1145–1157. DOI:10.1080/03075079.2015.1079702

Basturkmen, H., East, M., & Bitchener, J. (2014). Supervisors' on-script feedback comments on drafts of dissertations: Socialising students into the academic discourse community. *Teaching in Higher Education*, *19*(4), 432–445. DOI:10.1080/13562517.2012.752728

Becher, T., & Trowler, P. (2001). *Academic tribes and territories: Intellectual enquiry and the culture of disciplines* (2. ed). The Society for Research into Higher Education & Open University Press.

Becker, H. S. (2014). *What about Mozart? What about murder? reasoning from cases*. The University of Chicago Press.

Bégin-Caouette, O., Jansson, J., & Beaupré-Lavallée, A. (2018). The Perceived contribution of early-career researchers to research production in Nordic higher education systems. *Higher Education Policy*, *Online first*. DOI:10.1057/s41307-018-0125-5

Benzie, H. J. (2010). Graduating as a 'native speaker': International students and English language proficiency in higher education. *Higher Education Research & Development*, *29*(4), 447–459. DOI:10.1080/07294361003598824

Berns, M., & Matsuda, P. K. (2009). Applied linguistics. In M. Berns (Ed.), *Concise encyclopedia of applied linguistics* (pp. 3–13). Elsevier.

Bitusikova, A. (2009). Reforming doctoral education in Europe. *Academe Online*, *95*(1).

Black, R., & Gent, S. (2006). Sustainable return in post-conflict contexts. *International Migration*, *44*(3), 15–38. DOI:10.1111/j.1468-2435.2006.00370.x

Bloch, C., Graversen, E. K., & Pedersen, H. S. (2015). Researcher mobility and sector career choices among doctorate holders. *Research Evaluation*, *24*(2), 171–180. DOI:10.1093/reseval/rvv004

Blommaert, J. (2007). Sociolinguistic scales. *Intercultural Pragmatics*, *4*(1), 1–19. DOI:10.1515/IP.2007.001

Blommaert, J., Westinen, E., & Leppänen, S. (2015). Further notes on sociolinguistic scales. *Intercultural Pragmatics*, *12*, 119–127. DOI:10.1515/ip-2015-0005

Boehe, D. M. (2016). Supervisory styles: A contingency framework. *Studies in Higher Education*, *41*(3), 399–414. DOI:10.1080/03075079.2014.927853

Borrego, M., Choe, N. H., Nguyen, K., & Knight, D. B. (2019). STEM doctoral student agency regarding funding. *Studies in Higher Education*, *Online first*. DOI:10.1080/03075079.2019.1650737

Bothello, J., & Roulet, T. J. (2019). The Imposter syndrome, or the mis-representation of self in academic life. *Journal of Management Studies*, *56*(4), 854–861. DOI:10.1111/joms.12344

Boud, D., & Lee, A. (2005). 'Peer learning' as pedagogic discourse for research education. *Studies in Higher Education*, *30*(5), 501–516. DOI:10.1080/03075070500249138

Bourdieu, P. (1977). *Outline of a theory of practice* (R. Nice, Trans.; 1st ed.). Cambridge University Press. DOI:10.1017/CBO9780511812507

Bourdieu, P. (2004). *Science of science and reflexivity*. University of Chicago Press.

Brannick, T., & Coghlan, D. (2007). In defense of being "native": The case for insider academic research. *Organizational Research Methods*, *10*(1), 59–74. DOI:10.1177/1094428106289253

Brill, J. L., Balcanoff, K. K., Land, D., Gogarty, M., & Turner, F. (2014). Best practices in doctoral retention: Mentoring. *Higher Learning Research Communications*, *4*(2), 26. DOI:10.18870/hlrc.v4i2.186

Brøgger, K. (2019). *Governing through standards: The faceless masters of higher education: the Bologna Process, the EU and the open method of coordination* (Vol. 10). Springer International Publishing. DOI:10.1007/978-3-030-00886-4

Budd, R. (2019). UK university strike: Pensions, pay and precarity. *ECHER Blog*. https://www.echer.org/uk-university-strike-pensions-pay-and-precarity/

Cai, L., Elliot, D. L., He, R., Liu, J., Makara, K. A., Pacheco, M., Shih, H.-Y., Wang, W., & Zhang, J. (2019). A conceptual enquiry into communities of practice as praxis in international doctoral education. *Journal of Praxis in Higher Education*, *1*(1), 11–36.

Caliskan, O., & Holley, K. (2017). Doctoral student support programs in diverse national contexts. *Journal of Applied Research in Higher Education*, *9*(4), 565–576. DOI:10.1108/JARHE-12-2016-0095

Cameron, K. S., & Tschirhart, M. (1992). Postindustrial environments and organizational effectiveness in colleges and universities. *Journal of Higher Education*, *63*(1), 87–108.

Cancian, F. M. (1993). Conflicts between activist research and academic success: Participatory research and alternative strategies. *The American Sociologist*, *24*(1), 92–106. DOI:10.1007/BF02691947

Candarli, D., & Yuksel, H. G. (2012). Students' perceptions of video-conferencing in the classrooms in higher education. *Procedia - Social and Behavioral Sciences*, *47*, 357–361. DOI:10.1016/j.sbspro.2012.06.663

Candela, L., Carver, L., Diaz, A., Edmunds, J., Talusan, R., & Tarrant, T. A. (2009). An online doctoral education course using problem-based learning. *The Journal of Nursing Education*, *48*(2), 116–119. DOI:10.3928/01484834-20090201-02

Cantwell, B., & Kauppinen, I. (Eds.). (2014). *Academic capitalism in the age of globalization*. Johns Hopkins University Press.

Carter, S., & Kumar, V. (2017). 'Ignoring me is part of learning': Supervisory feedback on doctoral writing. *Innovations in Education and Teaching International*, *54*(1), 68–75. DOI:10.1080/14703297.2015.1123104

Castelló, M., McAlpine, L., & Pyhältö, K. (2017). Spanish and UK post-PhD researchers: Writing perceptions, well-being and productivity. *Higher Education Research & Development*, *36*(6), 1108–1122. DOI:10.1080/07294360.2017.1296412

Castells, M. (2009). *The Rise of the Network Society* (1st ed.). Wiley. DOI:10.1002/9781444319514

Cayley, R. (2020). *Explorations of style: A blog about academic writing*. https://explorationsofstyle.com/

CERN. (2019). *CERN - About*. Retrieved 22 November 2019, from https://home.cern/about/

Cho, J., & Trent, A. (2006). Validity in qualitative research revisited. *Qualitative Research*, *6*(3), 319–340. DOI:10.1177/1468794106065006

Choi, S. H.-J., Nieminen, T. A., & Townson, P. (2012). Factors influencing international PhD students to study physics in Australia. *Innovations in Education and Teaching International*, *49*(3), 309–318. DOI:10.1080/14703297.2012.703017

Coffin, C., Curry, M. J., Goodman, S., Hewings, A., Lillis, T., Swann, J., Curry, M. J., Goodman, S., Hewings, A., Lillis, T., & Swann, J. (2005). *Teaching academic writing: A toolkit for higher education*. Routledge. DOI:10.4324/9780203994894

Condell, S. L. (2008). Writing fieldnotes in an ethnographic study of peers – collaborative experiences from the field. *Journal of Research in Nursing*, *13*(4), 325–335. DOI:10.1177/1744987107087555

Cornér, S., Löfström, E., & Pyhältö, K. (2017). The relationships between doctoral students' perceptions of supervision and burnout. *International Journal of Doctoral Studies*, *12*, 91–106. DOI:10.28945/3754

Cotterall, S. (2011). Doctoral students writing: Where's the pedagogy? *Teaching in Higher Education*, *16*(4), 413–425. DOI:10.1080/13562517.2011.560381

Courtois, A. (2020). Study abroad as governmentality: The construction of hypermobile subjectivities in higher education. *Journal of Education Policy*, *35*(2), 237–257. DOI:10.1080/02680939.2018.1543809

Courtois, A.; Horvath, A., Marginson, S., van der Wende, M., Hazelkorn, E. (2018). *Higher education and Brexit: Current European perspectives*. CGHE. Retrieved 11 December 2019, from https://www.researchcghe.org/publications/special-report/higher-education-and-brexit-current-european-perspectives/

Courtois, A., & Veiga, A. (2020). Brexit and higher education in Europe: The role of ideas in shaping internationalisation strategies in times of uncertainty. *Higher Education*, *79*(3), 811–827. DOI:10.1007/s10734-019-00439-8

Crang, M., & Cook, I. (2007). *Doing ethnographies*. SAGE Publications Ltd. DOI:10.4135/9781849208949

Cree, V. E. (2012). 'I'd like to call you my mother.' Reflections on supervising international PhD students in social work. *Social Work Education*, *31*(4), 451–464. DOI:10.1080/02615479.2011.562287

Cumings Mansfield, K., Welton, A., Lee, P., & Young, M. D. (2010). The lived experiences of female educational leadership doctoral students. *Journal of Educational Administration*, *48*(6), 727–740. DOI:10.1108/09578231011079584

Cumming, J. (2010). Doctoral enterprise: A holistic conception of evolving practices and arrangements. *Studies in Higher Education*, *35*(1), 25–39. DOI:10.1080/03075070902825899

Davis, C. S. (2008). Critical Action Research. In L. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 140–142). SAGE Publications.

Delyser, D. (2003). Teaching graduate students to write: A seminar for thesis and dissertation writers. *Journal of Geography in Higher Education*, *27*(2), 169–181. DOI:10.1080/03098260305676

Denzin, N. K. (1994). The art and politics of interpretation. In *Handbook of qualitative research* (pp. 500–515). Sage Publications, Inc.

Deshpande, A. (2017). Faculty best practices to support students in the 'Virtual Doctoral Land'. *Higher Education for the Future, 4*(1), 12-30. DOI:10.1177/2347631116681211

Djerasimovic, S. (2019, August 29). *Exploring the ways of studying academic identity as a dynamic discursive performance*. 32nd Annual CHER Conference, Kassel, Germany.

Djerasimovic, S., & Villani, M. (2019). Constructing academic identity in the European higher education space: Experiences of early career educational researchers. *European Educational Research Journal*, *Online first*. DOI:10.1177/1474904119867186

Doggett, A. (2008). The videoconferencing classroom: What do students think? *Journal of Industrial Teacher Education*, *44*(4), 29–41.

Dowling, R., Gorman-Murray, A., Power, E., & Luzia, K. (2012). Critical reflections on doctoral research and supervision in human heography: The 'PhD by publication'. *Journal of Geography in Higher Education, 36*(2), 293-305.

Duke, D. C., & Denicolo, P. M. (2017). What supervisors and universities can do to enhance doctoral student experience (and how they can help themselves). *FEMS Microbiology Letters*, *364*(9). DOI:10.1093/femsle/fnx090

Elliot, D. L. (2020, June 30). *The hidden curriculum among international doctoral researchers*. SRHE Webinar: Internationalisation of the Curriculum: A Focus on International Students, Online.

Elliot, D. L., Baumfield, V., & Reid, K. (2016c). Searching for 'a third space': A creative pathway towards international PhD students' academic acculturation. *Higher Education Research & Development*, *35*(6), 1180–1195. DOI:10.1080/07294360.2016.1144575

Elliot, D. L., Baumfield, V., Reid, K., & Makara, K. A. (2016a). Hidden treasure: Successful international doctoral students who found and harnessed the hidden curriculum. *Oxford Review of Education*, *42*(6), 733–748. DOI:10.1080/03054985.2016.1229664

Elliot, D. L., Bengtsen, S., Guccione, K., & Kobayashi, S. (2020). *The Hidden Curriculum in Doctoral Education*. Palgrave Pivot.

Elliot, D. L., Reid, K., & Baumfield, V. (2016b). Beyond the amusement, puzzlement and challenges: An enquiry into international students' academic acculturation. *Studies in Higher Education*, *41*(12), 2198–2217. DOI:10.1080/03075079.2015.1029903

Enders, J., de Boer, H. F., & Westerheijden, D. F. (Eds.). (2011). *Reform of higher education in Europe*. Sense Publishers. DOI:10.1007/978-94-6091-555-0

Ennser-Kananen, J., Saarinen, T., & Sivunen, N. (2018). It´s not messy but it´s not clean either: Reviewing and discussing an Applied Linguistics textbook through a research ethics lens. *Apples : Journal of Applied Language Studies*, *12*(1). DOI:10.17011/apples/urn.201805302919

EUA. (2005). *Salzburg 2005 – Conclusions and recommendations*. EUA. https://eua.eu/resources/publications/626:salzburg-2005-%E2%80%93-conclusions-and-recommendations.html

European Commission. (2005). *Tutkijoiden eurooppalainen peruskirja. Säännöstö tutkijoiden työhönotosta. [The European Charter for Researchers. The Code of Conduct for the Recruitment of Researchers]*. European Commission.

European Commission/EACEA/Eurydice. (2017). *Modernisation of Higher Education in Europe: Academic Staff – 2017. Eurydice Report.* European Commission. https://eacea.ec.europa.eu/national-policies/eurydice/content/modernisation-higher-education-europe-academic-staff-%E2%80%93-2017_en

Eurostat. (2019). *Eurostat – Data Explorer*. https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

Favell, A., Feldblum, M., & Smith, M. P. (2007). The human face of global mobility: A research agenda. *Society*, *44*(2), 15–25. DOI:10.1007/BF02819922

Fenge, L. (2012) Enhancing the doctoral journey: the role of group supervision in supporting collaborative learning and creativity. *Studies in Higher Education, 37*(4), 401-414, DOI: 10.1080/03075079.2010.520697

Ferguson, T. (2009). The 'write' skills and more: A thesis writing group for doctoral students. *Journal of Geography in Higher Education*, *33*(2), 285–297. DOI:10.1080/03098260902734968

Fine, M. (2018). *Just research in contentious times: Widening the methodological imagination*. Teachers College Press.

Finlay, J. L., Crutcher, R. A., & Drummond, N. (2011). 'Garang's seeds': Influences on the return of Sudanese-Canadian refugee physicians to post-conflict South Sudan. *Journal of Refugee Studies*, *24*(1), 187–206. DOI:10.1093/jrs/feq047

Forbes, J. (2008). Reflexivity in professional doctoral research. *Reflective Practice*, *9*(4), 449–460. DOI:10.1080/14623940802431523

Forsman, L. (2015). Language shift in Gammalsvenskby: A nexus analysis of the shift to Ukrainian in a traditionally Swedish-speaking community. *Journal of Sociolinguistics*, *19*(1), 37–61. DOI:10.1111/josl.12112

Fotovatian, S. (2012). Three constructs of institutional identity among international doctoral students in Australia. *Teaching in Higher Education*, *17*(5), 577–588. DOI:10.1080/13562517.2012.658557

Foucault, M. (1977). *Discipline and punish: The birth of the prison* (1st American ed). Pantheon Books.

Foucault, M. (1984). *The Foucault reader* (P. Rabinow, Ed.; 1st ed). Pantheon Books.

Foucault, M. (1995). *Discipline and punish: The birth of the prison* (2nd Vintage Books ed). Vintage Books.

Foucault, M. (2006). *The order of things: An archaeology of the human sciences* (Repr). Routledge.

Fourie-Malherbe, M., Albertyn, R., Aitchison, C., & Bitzer, E. (Eds.). (2016). *Postgraduate Supervision – Future foci for the knowledge society* (1st ed.). Sun Press. DOI:10.18820/9781928357223

FUURT. (2019). *NUTU - Nuorempien tutkijoiden työryhmä – Tieteentekijöiden liitto*. Retrieved 21 November 2019, from https://tieteentekijoidenliitto.fi/liitto/tyoryhmat/nutu_-_nuorempien_tutkijoiden_tyoryhma

Gaisch, M. (2014). *Affordances for teaching in an international classroom: A constructivist grounded theory*. University of Vienna.

Garcia, F. L. (2020, June 3). We must seize the chance to enhance internationalisation in higher education. *Times Higher Education (THE)*. https://www.timeshighereducation.com/opinion/we-must-seize-chance-enhance-internationalisation-higher-education

Gardner, S. K. (2010). Contrasting the Socialization Experiences of Doctoral Students in High- and Low-Completing Departments: A Qualitative Analysis of Disciplinary Contexts at One Institution. *The Journal of Higher Education*, *81*(1), 61–81. DOI:10.1080/00221546.2010.11778970

Gardner, S. K. (2013). The Challenges of First-Generation Doctoral Students. *New Directions for Higher Education*, *2013*(163), 43–54. DOI:10.1002/he.20064

Gardner, S. K., & Holley, K. A. (2011). "Those invisible barriers are real": The Progression of First-Generation Students Through Doctoral Education. *Equity & Excellence in Education*, *44*(1), 77–92. DOI:10.1080/10665684.2011.529791

Garnham, B. L. (2008). Data generation. In L. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods*. SAGE Publications, Inc. DOI:10.4135/9781412963909.n97

Gee, J. P. (1999). *An introduction to discourse analysis: Theory and method*. Routledge.

Germain-Alamartine, E., Ahoba-Sam, R., Moghadam-Saman, S., & Evers, G. (2020). Doctoral graduates' transition to industry: Networks as a mechanism? Cases from Norway, Sweden and the UK. *Studies in Higher Education*, 1–16. DOI:10.1080/03075079.2020.1754783

Gillies, D. (2008). Student perspectives on videoconferencing in teacher education at a distance. *Distance Education*, *29*(1), 107–118. DOI:10.1080/01587910802004878

Given, L. M. (2008). Action Research. In *The SAGE encyclopedia of qualitative research methods* (pp. 5–7). SAGE Publications.

Glansdorff, P., & Prigogine, I. (1971). *Thermodynamic theory of structure, stability and fluctuations*. Wiley-Interscience. http://www.sciencemag.org/cgi/doi/10.1126/science.176.4042.1410

Goffman, E. (1983). The Interaction order: American Sociological Association, 1982 Presidential Address. *American Sociological Review*, *48*(1), 1. DOI:10.2307/2095141

Golde, C. M. (2000). Should I stay or should I go? Student descriptions of the doctoral attrition process. *The Review of Higher Education*, *23*(2), 199–227. DOI:10.1353/rhe.2000.0004

Gopaul, B. (2011). Inequality and doctoral education: exploring the "rules" of doctoral study through Bourdieu's notion of field. *Higher Education*, *70*(1), 73-88 DOI:10.1007/s10734-014-9824-z

Green, D. (2016). *How change happens* (First edition). Oxford University Press.

Greenwood, D. J., & Levin, M. (2007). *Introduction to action research: Social research for social change* (2nd ed). Sage Publications.

Griffiths, H. (2016, September 16). *Am I a PhD ECR? What is an early career researcher?* Blog.Jobs.Ac.Uk. https://blog.jobs.ac.uk/all-things-research/phd-ecr/

Guerin, C., Aitchison, C., & Carter, S. (2020). *DoctoralWriting SIG*. https://doctoralwriting.wordpress.com/

Guerin, C., Jayatilaka, A., & Ranasinghe, D. (2015). Why start a higher degree by research? An exploratory factor analysis of motivations to undertake doctoral studies. *Higher Education Research & Development*, *34*(1), 89–104. DOI:10.1080/07294360.2014.934663

Guerin, C., Xafis, V., Doda, D. V., Gillam, M. H., Larg, A. J., Luckner, H., Jahan, N., Widayati, A., & Xu, C. (2013). Diversity in collaborative research communities: A multicultural, multidisciplinary thesis writing group in public health. *Studies in Continuing Education*, *35*(1), 65–81. DOI:10.1080/0158037X.2012.684375

Guth, J. (2008). The opening of borders and scientific mobility: The impact of EU enlargement on the movement of early career scientists. *Higher Education in Europe*, *33*(4), 395–410. DOI:10.1080/03797720802522601

Habti, D. (2012). *Highly skilled mobility and migration from MENA region to Finland: A socio-analytical approach*. University of Eastern Finland. http://epublications.uef.fi/pub/urn_isbn_978-952-61-0863-6/

Habti, D. (2019). What's driving migrant Russian physicians to stay permanently in Finland? A life-course approach. *Journal of Finnish Studies*, *22*(1–2).

Hammersley, M. (1992). *What's wrong with ethnography? Methodological explorations*. Routledge.

Hammersley, M. (2016). *Reading ethnographic research* (2nd ed.). Routledge. DOI:10.4324/9781315538457

Hancock, S., & Walsh, E. (2016). Beyond knowledge and skills: Rethinking the development of professional identity during the STEM doctorate. *Studies in Higher Education*, *41*(1), 37–50. DOI:10.1080/03075079.2014.915301

Harding-DeKam, J. L., Hamilton, B., & Loyd, S. (2012). The hidden curriculum of doctoral advising. *NACADA Journal*, *32*(2), 5–16. DOI:10.12930/0271-9517-32.2.5

Harrington, B. (2003). The social psychology of access in ethnographic research. *Journal of Contemporary Ethnography*, *32*(5), 592–625. DOI:10.1177/0891241603255677

Harvey, D. (1996). *Justice, nature, and the geography of difference*. Blackwell Publishers.

Harvey, J. (2006). Return dynamics in Bosnia and Croatia: A comparative analysis. *International Migration*, *44*(3), 89–144. DOI:10.1111/j.1468-2435.2006.00373.x

Hasgall, A., Saenen, B., & Borrell-Damian, L. (2019). *Doctoral education in Europe today: Approaches and institutional structures*. EUA-CDE. https://eua.eu/resources/publications/809:doctoral-education-in-europe-today-approaches-and-institutional-structures.html

He, M.F. (2002). A narrative inquiry of cross-cultural lives: Lives in Canada. *Journal of Curriculum Studies, 34*(3), 323–342.

Helsingin Sanomat. (2019, September 27). *Suomen syntyvyys putoaa jopa synkkiä ennusteita nopeammin, tällaisen vauvakadon piti olla edessä vasta 2045*. https://www.hs.fi/kotimaa/art-2000006252180.html

Henriksen, D., Mishra, P., Greenhow, C., Cain, W., & Roseth, C. (2014). A tale of two courses: Innovation in the hybrid/online doctoral program at Michigan State University. *TechTrends*, *58*(4), 45–53. DOI:10.1007/s11528-014-0768-z

Hoad, T. F. (Ed.). (1993). *The concise Oxford dictionary of English etymology*. Oxford University Press.

Hoffman, D. M. (2007). *The career potential of migrant scholars in Finnish higher education: Emerging perspectives and dynamics.* Jyväskylä University Press.

Hoffman, D. M. (2009). Changing academic mobility patterns and international migration: What will academic mobility mean in the 21st century? *Journal of Studies in International Education*, *13*(3), 347–364. DOI:10.1177/1028315308321374

Hoffman, D. M., Habti, D., Korhonen, S., & Aarnikoivu, M. (2016, March 25). *The key dilemmas of migration and misrecognized multidimensional mobilities*. Sociology Days, Jyväskylä.

Hoffman, D. M., Pöyhönen, S., Cools, C., Stikhin, A., Habti, D., Siekkinen, T., & Sama, T. (2015). Aspiration, achievement and abandonment in 'the world's best country': Merit and equity or smoke and mirrors? *Coolabah*, *17*, 1–76. DOI:10.1344/co2015171-76

Hoffman, D. M., & Välimaa, J. (Eds.). (2016). *Re-becoming universities?: Higher education institutions in networked knowledge societies*. Springer Netherlands. DOI:10.1007/978-94-017-7369-0

Holdaway, E. A. (1996). Current issues in graduate education. *Journal of Higher Education Policy and Management*, *18*(1), 59–74. DOI:10.1080/1360080960180106

Holley, K. A., & Gardner, S. (2012). Navigating the pipeline: How socio-cultural influences impact first-generation doctoral students. *Journal of Diversity in Higher Education*, *5*(2), 112–121. DOI:10.1037/a0026840

Huhtala, A. (2014). Tieteellinen kirjoittaminen vieraalla kielellä: Diskursiivinen näkökulma. *Puhe & Kieli*, *34*(1), 5–20.

Huisman, J., Adelman, C., Hsieh, C.-C., Shams, F., & Wilkins, S. (2012). Europe's Bologna Process and its impact on global higher education. In *The SAGE Handbook of International Higher Education* (pp. 81–100). SAGE Publications, Inc. DOI:10.4135/9781452218397.n5

Hult, F. M. (2007). *Multilingual language policy and English language teaching in Sweden*. University of Pennsylvania.

Hult, F. M. (2010). Analysis of language policy discourses across the scales of space and time. *International Journal of the Sociology of Language*, *2010*(202). DOI:10.1515/ijsl.2010.011

Hult, F. M. (2014). Covert bilingualism and symbolic competence: Analytical reflections on negotiating insider/outsider positionality in Swedish speech situations. *Applied Linguistics*, *35*(1), 63–81. DOI:10.1093/applin/amt003

Hult, F. M. (2015). Making policy connections across scales using nexus analysis. In D. C. Johnson & F. M. Hult (Eds.), *Research Methods in Language Policy and Planning* (pp. 217–231). John Wiley & Sons, Inc. DOI:10.1002/9781118340349.ch19

Hult, F. M., & Pietikäinen, S. (2014). Shaping discourses of multilingualism through a language ideological debate. *Journal of Language and Politics*, *13*(1), 1–20.

Jauhiainen, A., & Nori, H. (2017). Puurtajat, Statuksen korottajat ja Koulutuspääoman uusintajat: Tohtoriopiskelijat ja heidän taustansa suomalaisella yliopistokentällä. *Kasvatus*, *48*(2), 80–95.

Jazvac-Martek, M., Chen, S., & McAlpine, L. (2011). Tracking the doctoral student experience over time: Cultivating agency in diverse spaces. In L. McAlpine & C. Amundsen (Eds.), *Doctoral Education: Research-Based Strategies for Doctoral Students, Supervisors and Administrators* (pp. 17–36). Springer Netherlands. DOI:10.1007/978-94-007-0507-4_2

Jocuns, A. (2018). Examining traditional communicative practices in Gerai, Indonesia: A nexus analysis. *Journal of Multicultural Discourses*, *13*(1), 37–51. DOI:10.1080/17447143.2018.1438441

Johansson, T., Wisker, G., Claesson, S., Strandler, O., & Saalman, E. (2014). PhD. supervision as an emotional process—Critical situations and emotional boundary work. *Pertanika Journal of Social Science and Humanities*, *22*(2), 605–622.

Johnson, E. (2014). Toward the building of a cross-disciplinary doctoral research and writing culture. *Journal of University Teaching & Learning Practice*, *11*(1).

Johnson, M. (1999). Observations on positivism and pseudoscience in qualitative nursing research. *Journal of Advanced Nursing*, *30*(1), 67–73. DOI:10.1046/j.1365-2648.1999.01050.x

Jonker, J., & Pennink, B. P. (2009). *The essence of research methodology: A concise guide for master and PhD students in management science*. Springer-Verlag. DOI:10.1007/978-3-540-71659-4

Jordan, M., Kanno-Youngs, Z., & Levin, D. (2020, July 7). Trump Visa Rules Seen as Way to Pressure Colleges on Reopening. *The New York Times.* https://www.nytimes.com/2020/07/07/us/student-visas-coronavirus.html

Kallio, K.-M., Kallio, T. J., Tienari, J., & Hyvönen, T. (2016). Ethos at stake: Performance management and academic work in universities. *Human Relations*, *69*(3), 685–709. DOI:10.1177/0018726715596802

Kamler, B. (2008). Rethinking doctoral publication practices: Writing from and beyond the thesis. *Studies in Higher Education*, *33*(3), 283–294. DOI:10.1080/03075070802049236

Kamler, B., & Thomson, P. (2006). *Doctoral writing: Pedagogies for work with literatures*. AERA annual meeting, doctoral writing symposium, San Francisco, US. https://www.academia.edu/30238354/Doctoral_writing_pedagogies_for_work_with_literatures

Kehm, B. M. (2010). Quality in European higher education: The influence of the Bologna Process. *Change: The Magazine of Higher Learning*, *42*(3), 40–46. DOI:10.1080/00091381003704677

Kehm, B. M., Huisman, J., & Stensaker, B. (2009). *The European higher education area: Perspectives on a moving target*. Sense Publishers. http://hdl.handle.net/1854/LU-4084171

Kibreab, G. (2003). Citizenship rights and repatriation of refugees. *The International Migration Review*, *37*(1), 24–73. JSTOR.

Kim, T. (2017). Academic mobility, transnational identity capital, and stratification under conditions of academic capitalism. *Higher Education*, *73*(6), 981–997. DOI:10.1007/s10734-017-0118-0

Kirpitchenko, L., & Voloder, L. (2014). *Insider research method: The significance of identities in the field*. SAGE Publications, Ltd. DOI:10.4135/9781446273050145339 40

Kivistö, J., Pekkola, E., & Siekkinen, T. (2017). Latest reforms in Finnish doctoral education in light of recent European developments. *European Journal of Higher Education*, *7*(3), 291–308. DOI:10.1080/21568235.2017.1290881

Klapper, J. (2006). *Understanding and developing good practice: Language teaching in higher education*. CILT, the National Centre for Languages.

Kottmann, A. (2011). Reform of doctoral training in Europe. In J. Enders, H. F. de Boer, & D. F. Westerheijden (Eds.), *Reform of Higher Education in Europe* (pp. 29–43). SensePublishers. DOI:10.1007/978-94-6091-555-0_3

Kõu, A., van Wissen, L., van Dijk, J., & Bailey, A. (2015). A life course approach to high-skilled migration: Lived experiences of Indians in the Netherlands. *Journal of Ethnic and Migration Studies*, *41*(10), 1644–1663. DOI:10.1080/1369183X.2015.1019843

Krause, M. (2016a). Comparative research: Beyond linear-casual explanation. In J. Deville, M. Guggenheim & Z. Hrdličková (Eds.), *Practising Comparison: Logics, Relations, Collaborations* (pp. 45–67). Mattering Press.

Krause, M. (2016b). The meanings of theorizing: The meanings of theorizing. *The British Journal of Sociology*, *67*(1), 23–29. DOI:10.1111/1468-4446.12187_4

Ku, H.-Y., Lahman, M. K. E., Yeh, H.-T., & Cheng, Y.-C. (2008). Into the academy: Preparing and mentoring international doctoral students. *Educational Technology Research and Development*, *56*(3), 365–377. DOI:10.1007/s11423-007-9083-0

Kumar, V., & Aitchison, C. (2018). Peer facilitated writing groups: A programmatic approach to doctoral student writing. *Teaching in Higher Education*, *23*(3), 360–373. DOI:10.1080/13562517.2017.1391200

Kvale, S. (1995). The social construction of validity. *Qualitative Inquiry*, *1*(1), 19–40. DOI:10.1177/107780049500100103

Kvale, S. (2007). *Doing Interviews*. SAGE Publications, Ltd. DOI:10.4135/9781849208963

Kyvik, S., & Olsen, T. B. (2012). The relevance of doctoral training in different labour markets. *Journal of Education and Work*, *25*(2), 205–224. DOI:10.1080/13639080.2010.538376

Ladkin, D. (2011). Action Research. In C. Seale, G. Gobo, J. Gubrium, & D. Silverman (Eds.), *Qualitative research practice* (pp. 478–490). SAGE.

Lane, P. (2010). "We did what we thought was best for our children": A nexus analysis of language shift in a Kven community. *International Journal of the Sociology of Language*, *2010*(202). DOI:10.1515/ijsl.2010.014

Larivière, V. (2012). On the shoulders of students? The contribution of PhD students to the advancement of knowledge. *Scientometrics*, *90*(2), 463–481. DOI:10.1007/s11192-011-0495-6

Lassig, C. J., Dillon, L. H., & Diezmann, C. M. (2013). Student or scholar? Transforming identities through a research writing group. *Studies in Continuing Education*, *35*(3), 299–314. DOI:10.1080/0158037X.2012.746226

Laufer, M., & Gorup, M. (2019). The invisible others: Stories of international doctoral student dropout. *Higher Education*, *78*(1), 165–181. DOI:10.1007/s10734-018-0337-z

Lea, M. R., & Nicoll, K. (Eds.). (2002). *Distributed learning: Social and cultural approaches to practice*. Routledge.

Lee, A., & Boud, D. (2003). Writing groups, change and academic identity: Research development as local practice. *Studies in Higher Education*, *28*(2), 187–200. DOI:10.1080/0307507032000058109

Leigh, J. T. (2013). *Constructing professional identity in child protection: A comparative ethnography*. University of Salford. http://usir.salford.ac.uk/id/eprint/29567/

Leininger, M. (1994). Evaluation criteria and critique of qualitative research studies. In J. M. Morse (Ed.), *Critical issues in qualitative research methods* (pp. 95–115). SAGE.

Leonard, D., & Metcalfe, A. (2006). *Review of literature on the impact of working context and support on the postgraduate research student learning experience*. The Higher Education Academy.

Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. *Research Policy*, *46*(4), 868–879. DOI:10.1016/j.respol.2017.02.008

Logan, D. C. (2009). Known knowns, known unknowns, unknown unknowns and the propagation of scientific enquiry. *Journal of Experimental Botany, 60*(3), 712-714. DOI:10.1093/jxb/erp043

Lorber, B., & Prem, S. (2020, May 19). Post-Covid, internationalisation must be more flexible. *Times Higher Education (THE)*. https://www.timeshighereducation.com/opinion/post-covid-internationalisation-must-be-more-flexible

Lynch, M. F., Salikhova, N. R., & Salikhova, A. B. (2018). Internal motivation among doctoral students: Contributions from the student and from the student's environment. *International Journal of Doctoral Studies*, *13*, 255–272. DOI:10.28945/4091

Macfarlane, B. (2012). The higher education research archipelago. *Higher Education Research & Development*, *31*(1), 129–131. DOI:10.1080/07294360.2012.642846

Madhusoodanan, J. (2020, July 8). 'Disturbing and cruel.' Universities blast new visa rule for international students. *Science*. https://www.sciencemag.org/careers/2020/07/disturbing-and-cruel-universities-blast-new-visa-rule-international-students

Maher, D., Seaton, L., McMullen, C., Fitzgerald, T., Otsuji, E., & Lee, A. (2008). 'Becoming and being writers': The experiences of doctoral students in writing groups. *Studies in Continuing Education*, *30*(3), 263–275. DOI:10.1080/01580370802439870

Maher, M., Fallucca, A., & Mulhern Halasz, H. (2013). Write on! Through to the Ph.D.: Using writing groups to facilitate doctoral degree progress. *Studies in Continuing Education*, *35*(2), 193–208. DOI:10.1080/0158037X.2012.736381

Mantai, L., & Dowling, R. (2015). Supporting the PhD journey: Insights from acknowledgements. *International Journal for Researcher Development*, *6*(2), 106–121. DOI:10.1108/IJRD-03-2015-0007

Marginson, S. (2016). High participation systems of higher education. *The Journal of Higher Education*, *87*(2), 243–271. DOI:10.1353/jhe.2016.0007

Marginson, S. (2020, March 26). Global HE as we know it has forever changed. *Times Higher Education (THE)*. https://www.timeshighereducation.com/blog/global-he-we-know-it-has-forever-changed

Marginson, S., & Peters, M. A. (Eds.). (2010). *Global creation: Space, mobility, and synchrony in the age of the knowledge economy*. Lang.

Marini, G. (2019). A PhD in social sciences and humanities: impacts and mobility to get better salaries in an international comparison. *Studies in Higher Education, 44*(8), 1332-1343.

Martin, J. R. (2017). *Changing the educational landscape: Philosophy, women, and curriculum* (1st ed.). Routledge. DOI:10.4324/9781315021553

Martinsuo, M., & Turkulainen, V. (2011). Personal commitment, support and progress in doctoral studies. *Studies in Higher Education*, *36*(1), 103–120. DOI:10.1080/03075070903469598

Mathies, C., & Weimer, L. (2018). A changing narrative for international students? In D. Proctor & L. E. Rumbley (Eds.), *The Future Agenda for Internationalization in Higher Education* (1st ed., pp. 144–152). Routledge. DOI:10.4324/9781315266909-14

Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Education Review*, *62*, 279–299.

McAlpine, L., Jazvac-Martek, M., & Hopwood, N. (2009). Doctoral student experience in Education:Activities and difficulties influencing identity development. *International Journal for Researcher Development*, *1*(1), 97–109.

McAlpine, L., & Norton, J. (2006). Reframing our approach to doctoral programs: An integrative framework for action and research. *Higher Education Research & Development*, *25*(1), 3–17. DOI:10.1080/07294360500453012

McCarthy, M. (2001). *Issues in applied linguistics*. Cambridge University Press.

McEnerney, L. (2014, June 26). *The craft of writing effectively*. University of Chicago. https://www.youtube.com/watch?v=vtIzMaLkCaM

McGrail, M. R., Rickard, C. M., & Jones, R. (2006). Publish or perish: A systematic review of interventions to increase academic publication rates.

Higher Education Research & Development, *25*(1), 19–35. DOI:10.1080/07294360500453053

McKeown, G. (2014). *Essentialism: The Disciplined Pursuit of Less* (1st ed.). Currency.

Merton, R. K., Rader, G. G., & Kendall, P. L. (1957). *The student physician: Introduction studies in the sociology of medical education*. Harvard University Press.

Metcalfe, J., Wilson, S., & Levecque, K. (2018). *Exploring wellbeing and mental health and associated support services for postgraduate researchers*. Vitae. https://www.gla.ac.uk/media/Media_629688_smxx.pdf

Mills, C. W. (1959). *The sociological imagination.* Oxford University Press.

Montgomery, C. (2020, May 16). Relationships vital in post-COVID internationalisation. *University World News*. https://www.universityworldnews.com/post.php?story=20200511084645514

Moore, S. (2003). Writers' retreats for academics: Exploring and increasing the motivation to write. *Journal of Further and Higher Education*, *27*(3), 333–342. DOI:10.1080/0309877032000098734

Morss, K., & Murray, R. (2001). Researching academic writing within a structured programme: Insights and outcomes. *Studies in Higher Education*, *26*(1), 35–52. DOI:10.1080/03075070020030706

Mrčela, A. K., Bernasconi, A., Grant, B., Herman, C., Balaban, C., Chen, H., Rutledge, J., Nerad, M., Lopatkova, M., & Grund, M. (2019). Assessment of Doctoral Reforms Since 2005 – Systemic Meta-Level. *Forces and Forms of Doctoral Education*, 55. https://www.doctoral-education.info/dl/Workgroup-1_Assessment-of-Doctoral-Reforms-Since-2005.pdf

Nasiri, F., & Mafakheri, F. (2015) Postgraduate research supervision at a distance: a review of challenges and strategies, *Studies in Higher Education, 40*(10), 1962-1969. DOI: 10.1080/03075079.2014.914906

Naveed, A., Sakata, N., Kefallinou, A., Young, S., & Anand, K. (2017). Understanding, embracing and reflecting upon the messiness of doctoral fieldwork. *Compare: A Journal of Comparative and International Education*, *47*(5), 773–792. DOI:10.1080/03057925.2017.1344031

Neave, G. (2002). Anything goes: Or, how the accommodation of Europe's universities to European integration integrates an inspiring number of contradictions. *Tertiary Education and Management*, *8*(3), 181–197. DOI:10.1080/13583883.2002.9967078

Neave, G., & Maassen, P. (2007). The Bologna Process: An intergovernmental policy perspective. *University Dynamics and European Integration*, *19*, 135–153.

Nokkala, T., Aarnikoivu, M., & Kiili, J. (In review). *Multidisciplinary peer mentoring groups supporting knowledge sharing in doctoral education*.

Nori, H. (2011). *Keille yliopiston portit avautuvat? Tutkimus suomalaisiin yliopistoihin ja eri tieteenaloille valikoitumisesta 2000-luvun alussa*. University of Turku. https://www.utupub.fi/handle/10024/67040

Normile, D. (2019). Hong Kong protests hit universities. *Science*, *366*(6468), 935–935. DOI:10.1126/science.366.6468.935

Norris, S., & Jones, R. H. (Eds.). (2005). *Discourse in action: Introducing mediated discourse analysis* (1st ed.). Routledge.

Norton, B. (2001). Non-participation, imagined communities, and the language classroom. In M. Breen (Ed.), *Learner Contributions to Language Learning: New Directions in Research* (pp. 159–171). Pearson Education.

Norton, B. (2006). Identity as a sociocultural construct in second language education. In K. Cadman & K. O'Regan (Eds.), *TESOL in Context [Special Issue]* (pp. 22–33).

Odena, O., & Burgess, H. (2017). How doctoral students and graduates describe facilitating experiences and strategies for their thesis writing learning process: A qualitative approach. *Studies in Higher Education*, *42*(3), 572–590. DOI:10.1080/03075079.2015.1063598

OECD (Ed.). (2008). *The global competition for talent: Mobility of the highly skilled*. OECD.

O'Keeffe, A., & Walsh, S. (2012). Applying corpus linguistics and conversation analysis in the investigation of small group teaching in higher education. *Corpus Linguistics and Linguistic Theory*, *8*(1), 159–181. DOI:10.1515/cllt-2012-0007

Ollerton, J. (2018, November 28). Should we stop using the term "PhD students"? *Jeff Ollerton's Biodiversity Blog*. https://jeffollerton.wordpress.com/2018/11/28/should-we-stop-using-the-term-phd-students/

Opoku, A., Ahmed, V., & Akotia, J. (2016). Choosing an appropriate research methodology and method. In V. Ahmed, A. Opoku, & A. Zeeshan (Eds.), *Research Methodology in the Built Environment*. Routledge. DOI:10.4324/9781315725529-11

O'Reilly, K. (2009). *Key concepts in ethnography*. SAGE Publications Ltd. DOI:10.4135/9781446268308

Orellana, M. L., Darder, A., Pérez, A., & Salinas, J. (2016). Improving doctoral success by matching PhD students with supervisors. *International Journal of Doctoral Studies*, 11, 87-103.

Paré, A. (2017). Re-thinking the dissertation and doctoral supervision. *Infancia y Aprendizaje*, *40*(3), 407–428. DOI:10.1080/02103702.2017.1341102

Parker, R. (2009). A learning community approach to doctoral education in the social sciences. *Teaching in Higher Education*, *14*(1), 43–54. DOI:10.1080/13562510802602533

Parker-Jenkins, M. (2018). Mind the gap: Developing the roles, expectations and boundaries in the doctoral supervisor–supervisee relationship. *Studies in Higher Education*, *43*(1), 57–71. DOI:10.1080/03075079.2016.1153622

Pearson, M. (2005). Framing research on doctoral education in Australia in a global context. *Higher Education Research & Development*, *24*(2), 119–134. DOI:10.1080/07294360500062870

Pennycook, A. (2005). Teaching with the flow: Fixity and fluidity in education. *Asia Pacific Journal of Education*, *25*(1), 29–43. DOI:10.1080/02188790500032491

Perez-Felkner, L., Ford, J. R., Zhao, T., Anthony, M., Harrison, J. A., & Rahming, S. G. (2020). Basic needs insecurity among doctoral students: What it looks like and how to address it. *About Campus*, *24*(6), 18–24. DOI:10.1177/1086482219899649

Peters, B. G. (2017). What is so wicked about wicked problems? A conceptual analysis and a research program. *Policy and Society*, *36*(3), 385–396. DOI:10.1080/14494035.2017.1361633

Piattoeva, N. (2016). Kirjoittaminen taitona, velvollisuutena ja oikeutena. *Tieteessä tapahtuu*, *34*(3). https://journal.fi/tt/article/view/57066

Pickering, C., Grignon, J., Steven, R., Guitart, D., & Byrne, J. (2015). Publishing not perishing: How research students transition from novice to knowledgeable using systematic quantitative literature reviews. *Studies in Higher Education*, *40*(10), 1756–1769. DOI:10.1080/03075079.2014.914907

Pietikäinen, S., Compton, S. E., & Dlaske, K. (2015). Putting resources into practice: A nexus analysis of knowledge mobilisation activities in language research and multilingual communities. *Current Issues in Language Planning*, *16*(3), 187–200. DOI:10.1080/14664208.2015.972533

Pietikäinen, S., Lane, P., Salo, H., & Laihiala-Kankainen, S. (2011). Frozen actions in the Arctic linguistic landscape: A nexus analysis of language processes in visual space. *International Journal of Multilingualism*, *8*(4), 277–298. DOI:10.1080/14790718.2011.555553

Pifer, M. J., & Baker, V. L. (2014). 'It could be just because I'm different': Otherness and its outcomes in doctoral education. *Journal of Diversity in Higher Education*, *7*(1), 14–30. DOI:10.1037/a0035858

Postill, J. (2017). Remote ethnography: studying culture from afar. In L. Hjorth, H. Horst, A. Galloway, & G. Bell (Eds.), *The Routledge Companion to Digital Ethnography*. Routledge. DOI:10.4324/9781315673974-16

Pulkkinen, S., & Roihuvuo, J. (Eds.). (2014). *Erkanevat koulutuspolut – Koulutuksen tasa-arvon tila 2010-luvun Suomessa*. Suomen Ylioppilaskuntien liitto (SYL).

Pyhältö, K., Stubb, J., & Lonka, K. (2009). Developing scholarly communities as learning environments for doctoral students. *International Journal for Academic Development*, *14*(3), 221–232. DOI:10.1080/13601440903106551

Ramaley, J. (2014). The changing role of higher education: Learning to deal with wicked problems. *Journal of Higher Education Outreach and Engagement*, *18*(3), 7–22.

Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, *4*(2), 155–169. DOI:10.1007/BF01405730

Robinson-Pant, A. (2009). Changing academies: Exploring international PhD students' perspectives on 'host' and 'home' universities. *Higher Education Research & Development*, *28*(4), 417–429. DOI:10.1080/07294360903046876

Roitto, M., & Impola, P. (2019). Tuulimyllyjä vastaan? : Ei enää tohtorikoulutettavia. *J@rgonia*, *17*(33). https://jyx.jyu.fi/handle/123456789/65024

Rose, M., & McClafferty, K. A. (2001). A call for the teaching of writing in graduate education. *Educational Researcher*, *30*(2), 27–33. DOI:10.3102/0013189X030002027

Roseth, C., Akcaoglu, M., & Zellner, A. (2013). Blending synchronous face-to-face and computer-supported cooperative learning in a hybrid doctoral seminar. *TechTrends*, *57*(3), 54–59. DOI:10.1007/s11528-013-0663-z

Roy, A. (2011). *Dualism and non-dualism: Elementary forms of physics at CERN*. University of Berkeley.

Roy, A. (2014). Ethnography and theory of the signature in physics. *Cultural Anthropology*, *29*(3), 479–502. DOI:10.14506/ca29.3.03

Ryan, J. (2012). Internationalisation of doctoral education. *Australian Universities' Review, 54*(1), 55–63.

Ryan, J., & Viete, R. (2009). Respectful interactions: Learning with international students in the English-speaking academy. *Teaching in Higher Education*, *14*(3), 303–314. DOI:10.1080/13562510902898866

Ryan, J. M., & Carroll, J. (2005). 'Canaries in the coalmine': International students in Western universities. *Teaching International Students. Improving Learning for All*, 1–10.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, *25*(1), 54–67. DOI:10.1006/ceps.1999.1020

Saarinen, T. (2005a). From sickness to cure and further: Construction of 'quality' in finnish higher education policy from the 1960s to the era of the Bologna Process. *Quality in Higher Education*, *11*(1), 3–15. DOI:10.1080/13538320500078288

Saarinen, T. (2005b). 'Quality' in the Bologna Process: From 'competitive edge' to quality assurance techniques. *European Journal of Education*, *40*(2), 189–204. DOI:10.1111/j.1465-3435.2004.00219.x

Saarinen, T. (2008). Position of text and discourse analysis in higher education policy research. *Studies in Higher Education*, *33*(6), 719–728. DOI:10.1080/03075070802457090

Saarinen, T., & Ala-Vähälä, T. (2007). Accreditation, the Bologna Process and national reactions: Accreditation as concept and action. *Higher Education in Europe*, *32*(4), 333–345. DOI:10.1080/03797720802066195

Saarinen, T., Kyckling, E., & Haapakangas, E.-L. (2020). Mitä on kansallinen ja kuka on kansainvälinen? Kieli-ideologiat korkeakoulutuksen kansainvälistymisen kuvaajina. In J. Ursin & R. Muhonen (Eds.), *Tuntematon korkeakoulutus*. University of Jyväskylä.

Sajavaara, K. (2000). Soveltava kielentutkimus. In K. Sajavaara & A. Piirainen-Marsh (Eds.), *Näkökulmia soveltavaan kielentutkimukseen* (pp. 13–30). Soveltavan Kielentutkimuksen Keskus.

Sakurai, Y., Vekkaila, J., & Pyhältö, K. (2017). More or less engaged in doctoral studies? Domestic and international students' satisfaction and motivation for doctoral studies in Finland. *Research in Comparative and International Education*, *12*(2), 143–159. DOI:10.1177/1745499917711543

Sala-Burbaré, A., Peltonen, J. A., Pyhältö, K., & Castelló, M. (2018). Doctoral candidates' research writing perceptions: A cross-national study. *International Journal of Doctoral Studies*, *13*, 327–345. DOI:10.28945/4103

Schneijderberg, C. (2019). Supervision practices of doctoral education and training. *Studies in Higher Education, Online first.* DOI:10.1080/03075079.2019.1689384

Scollon, R. (1999). Mediated discourse and social interaction. *Research on Language & Social Interaction*, *32*(1–2), 149–154. DOI:10.1080/08351813.1999.9683618

Scollon, R. (2002). *Mediated discourse: The nexus of practice* (1st ed.). Routledge. DOI:10.4324/9780203420065

Scollon, R., & Scollon, S. W. (2007). Nexus analysis: Refocusing ethnography on action. *Journal of Sociolinguistics*, *11*(5), 608–625. DOI:10.1111/j.1467-9841.2007.00342.x

Scollon, R., & Scollon, S. B. K. (2004). *Nexus analysis: Discourse and the emerging internet*. Routledge.

Scollon, S., & Saint-Georges, I. (2012). Mediated discourse analysis. In J. Gee & M. Handford (Eds.), *The Routledge Handbook of Discourse Analysis*. Routledge. DOI:10.4324/9780203809068-12

Seeber, M., Meoli, M., & Cattaneo, M. (2018). How do European higher education institutions internationalize? *Studies in Higher Education*, 1–18. DOI:10.1080/03075079.2018.1541449

Sheller, M., & Urry, J. (2006). The new mobilities paradigm. *Environment and Planning A: Economy and Space*, *38*(2), 207–226. DOI:10.1068/a37268

Shen, W., Wang, C., & Jin, W. (2016). International mobility of PhD students since the 1990s and its effect on China: A cross-national analysis. *Journal of Higher Education Policy and Management*, *38*(3), 333–353. DOI:10.1080/1360080X.2016.1174420

Siekkinen, T. (2019). *The changing relationship between the academic profession and universities in Finnish higher education*. Finnish Institute for Educational Research: http://urn.fi/URN:ISBN:978-951-39-7931-7

Simpson, S., Caplan, N., Cox, M., & Phillips, T. (Eds.). (2016). *Supporting graduate student writers: Research, curriculum, and program design*. University of Michigan Press. DOI:10.3998/mpub.8772400

Singh, M. (2009). Using Chinese knowledge in internationalising research education: Jacques Rancière, an ignorant supervisor and doctoral students from China. *Globalisation, Societies and Education*, *7*(2), 185–201. DOI:10.1080/14767720902908034

Skerrett, A. (2010). Lolita, Facebook, and the third space of literacy teacher Education. *Educational Studies*, *46*(1), 67–84. DOI:10.1080/00131940903480233

Slaughter, S. A., & Leslie, L. L. (1997). *Academic capitalism: Politics, policies, and the entrepreneurial university*. Johns Hopkins University Press.

Snyder, C. R. (2014). A woman's place: Women of colour navigating doctoral education in South Africa (pp. 15-35). *International Journal of Multicultural Education*, *16*(2), Article 2. DOI:10.18251/ijme.v16i2.904

Spolsky, B. (2008). Introduction: What is educational linguistics? In B. Spolsky & F. M. Hult (Eds.), *The Handbook of Educational Linguistics* (pp. 1–24). Blackwell Publishing Ltd.

Steyn, M. E., & Grant, T. (2007). "A real bag of mixed emotions": Re-entry experiences of South African exiles. *International Journal of Intercultural Relations*, *31*(3), 363–389. DOI:10.1016/j.ijintrel.2006.09.002

Strandler, O., Johansson, T., Wisker, G., & Claesson, S. (2014). Supervisor or counsellor? – Emotional boundary work in supervision. *International Journal for Researcher Development*, *5*(2), 70–82. DOI:10.1108/IJRD-03-2014-0002

Strömmer, M. (2016). Affordances and constraints: Second language learning in cleaning work. *Multilingua*, *35*(6). DOI:10.1515/multi-2014-0113

Strömmer, M. (2017). *Mahdollisuuksien rajoissa. Neksusanalyysi suomen kielen oppimisesta siivoustyössä*. University of Jyväskylä.

Stubb, A. (2019, November 19). *Europe in the new world (dis)order*. A public lecture on the future of the EU. Graduate Institute Geneva. Geneva, Switzerland.

Stubb, J. K. (2012). *Becoming a scholar: The dynamic interaction between the doctoral student and the scholarly community*. University of Helsinki. https://helda.helsinki.fi/handle/10138/32807

Sursock, A., & Smidt, H. (2010). *Trends 2010: A decade of change in European higher education.* EUA.

Sword, H., Trofimova, E., & Ballard, M. (2018). Frustrated academic writers. *Higher Education Research & Development*, *37*(4), 852–867. DOI:10.1080/07294360.2018.1441811

Tapio, E. (2013). *A nexus analysis of English in the everyday life of FinSL signers: A multimodal view on interaction*. University of Jyväskylä Printing House.

Taylor, J. (2011). The intimate insider: Negotiating the ethics of friendship when doing insider research. *Qualitative Research*, *11*(1), 3–22. DOI:10.1177/1468794110384447

Teichler, U. (2000). Higher education research and its institutional basis. In S. Schwarz & U. Teichler (Eds.), *The Institutional Basis of Higher Education Research: Experiences and Perspectives* (pp. 13–24). Springer Netherlands. DOI:10.1007/0-306-47662-2_2

Terry, L. S. (2007). The Bologna Process and its implications for U.S. legal education. *Journal of Legal Education*, *57*(2), 237–252. JSTOR.

Thomson, P. (2014, February 3). What's with the name doctoral 'student'? *Patter*. https://patthomson.net/2014/02/03/whats-with-the-name-doctoral-student/

Thomson, P. (2020). *Patter*. https://patthomson.net/

Thorlakson, L. (2005). Models of doctoral training in European political science. *European Political Science*, *4*(1), 82–94. DOI:10.1057/palgrave.eps.2210010

Tremblay, K. (2005). Academic mobility and immigration. *Journal of Studies in International Education*, *9*(3), 196–228. DOI:10.1177/1028315305277618

Tucker, G. R. (no date). *Applied Linguistics | Linguistic Society of America*. Applied Linguistics. https://www.linguisticsociety.org/resource/applied-linguistics

Tutkimuseettinen neuvottelukunta. (2012). *Responsible conduct of research and procedures for handling allegations of misconduct in Finland*. https://www.tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf

Twale, D. J., Weidman, J. C., & Bethea, K. A. (2016). Conceptualizing Socialization of Graduate Students of Color: Revisiting the Weidman-Twale-Stein Framework. *The Western Journal of Black Studies, 40*(2), 80–94.

University of Jyväskylä. (2017). *Humanistis-yhteiskuntatieteellisen tiedekunnan jatko-opetussuunnitelma 1.4.2017-31.7.2020*. Humanistis-yhteiskuntatieteellinen tiedekunta. https://www.jyu.fi/hytk/fi/tutkimus/tohtorikoulutus/tutkintovaatimukset/humanistis-yhteiskuntatieteellisen-tiedekunnan-jatko-opetussuunnitelma

Urry, J. (2007). *Mobilities*. Polity.

Välimaa, J., Papatsiba, V., & Hoffman, D. M. (2016). Higher education in networked knowledge societies. In D. M. Hoffman & J. Välimaa (Eds.), *Re-becoming universities?* (pp. 13–39). Springer Netherlands. DOI:10.1007/978-94-017-7369-0_2

van de Laar, M., Rehm, M., & Achrekar, S. (2017). 'Community of learning' for African PhD students: Changing the scene of doctoral education? *Transformation in Higher Education*, *2*. DOI:10.4102/the.v2i0.17

Vehviläinen, S., & Löfström, E. (2016). 'I wish I had a crystal ball': Discourses and potentials for developing academic supervising. *Studies in Higher Education*, *41*(3), 508–524. DOI:10.1080/03075079.2014.942272

Vekkaila, J., Virtanen, V., Kukkola, J., Frick, L., & Pyhältö, K. (2019). How do doctoral students in STEM fields engage in scientific knowledge practices? *Frontline Learning Research*, 51–64. DOI:10.14786/flr.v7i1.393

Vipunen. (2019). *Excel Web Access – /Fi-fi/Raportit/Yliopistojen FTE opiskelijat – Koulutusaste.xlsb*. Retrieved 4 December 2019, from https://vipunen.fi/fi-fi/_layouts/15/xlviewer.aspx?id=/fi-fi/Raportit/Yliopistojen%20FTE%20opiskelijat%20-%20Koulutusaste.xlsb

Virtanen, A. (2017a). *Toimijuutta toisella kielellä. Kansainvälisten sairaanhoitajaopiskelijoiden ammatillinen suomen kielen taito ja sen kehittyminen työharjoitteluissa.* Jyväskylä University Press.

Virtanen, A. (2017b). The multivoicedness of written documentation: An international nursing student documenting in a second language. *European Journal of Applied Linguistics*, *5*(1), 115–140. DOI:10.1515/eujal-2015-0015

Wang, L., & Byram, M. (2019) International doctoral students'experience of supervision: a case study in a Chinese university. *Cambridge Journal of Education, 49*(3), 255-274. DOI: 10.1080/0305764X.2018.1518405

Ward, A. M., & Brennan, N. M. (2020). Developing a student-doctoral education fit analytical model to assess performance. *Studies in Higher Education*, *45*(7), 1448–1460. DOI:10.1080/03075079.2018.1545758

Ward, C., Bochner, S., & Furnham, A. (2008). *The psychology of culture shock* (2. ed., reprinted). Routledge.

Weatherall, R. (2019). Writing the doctoral thesis differently. *Management Learning*, *50*(1), 100–113. DOI:10.1177/1350507618799867

Weidman, J. C., & Stein, E. L. (2003). Socialization of doctoral students to academic norms. *Research in Higher Education*, *44*(6), 641–656. DOI:10.1023/A:1026123508335

Weidman, J. C., Twale, D. J., & Stein, E. L. (2001). *Socialization of Graduate and Professional Students in Higher Education: A Perilous Passage? ASHE-ERIC Higher Education Report, Volume 28, Number 3. Jossey-Bass Higher and Adult Education Series*. Jossey-Bass, Publishers, Inc. https://eric.ed.gov/?id=ED457710

Wertsch, J. V. (1998). *Mind as action*. Oxford University Press.

Westerheijden, D. F., Beerkens, E., Cremonini, L., Huisman, J., Kehm, B. M., Kovač, A., Lažetić, P., McCoshan, A., Mozuraityte, N., Souto-Otero, M., de Weert, E., Witte, J., & Yagci, Y. (2013). *The first decade of working on the European higher education area: The Bologna process independent assessment. Volume 1, Detailed assessment report*. CHEPS; INCHER-Kassel; Ecotec. https://op.europa.eu:443/en/publication-detail/-/publication/6226c3e4-34ef-4142-8801-7aeefb97021f

Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in qualitative research. *Qualitative Health Research*, *11*(4), 522–537. DOI:10.1177/104973201129119299

Wiegerová, A. (2016). A study of the motives of doctoral students. *Procedia - Social and Behavioral Sciences*, *217*, 123–131. DOI:10.1016/j.sbspro.2016.02.043

Wildavsky, A. (2017). *Speaking truth to power: Art and craft of policy analysis* (2nd ed.). Routledge.

Wilkins, D. A. (1999). Applied linguistics. In B. Spolsky (Ed.), *Concise Encyclopedia of Educational Linguistics.* (pp. 6–17). Elsevier.

Williams, S. (2019). *Postgraduate research experience survey 2019*. Advance HE. https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/advance-he/AdvanceHE-Postgraduate_Research_%20Survey_%202019_1574338111.pdf

Wingens, M., Windzio, M., de Valk, H., & Aybek, C. (Eds.). (2011). *A life-course perspective on migration and integration*. Springer Netherlands. DOI:10.1007/978-94-007-1545-5

Witte, J., Huisman, J., & Purser, L. (2009). European higher education reforms in the context of the Bologna process: How did we get here, where are we and where are we going? In *Higher education to 2030: Volume 2: Globalisation* (Vol. 2, pp. 205–229). OECD. http://hdl.handle.net/1854/LU-4085634

Wolfinger, N. H. (2002). On writing fieldnotes: Collection strategies and background expectancies. *Qualitative Research*, *2*(1), 85–93. DOI:10.1177/1468794102002001640

Woolston, C. (2017). Graduate survey: A love–hurt relationship. *Nature*, *550*(7677), 549–552. DOI:10.1038/nj7677-549a

Woolston, C. (2019). PhDs: The tortuous truth. *Nature*, *575*(7782), 403–406. DOI:10.1038/d41586-019-03459-7

Zaman, S. (2008). Native among the natives: Physician anthropologist doing hospital ethnography at home. *Journal of Contemporary Ethnography*, *37*(2), 135–154. DOI:10.1177/0891241607312495

Zgaga, P. (2018). How has mobility become central to the EU's idea of doctoral education? *Learning and Teaching*, *11*(2), 5–29. DOI:10.3167/latiss.2018.110202

Zhao, Y., Lei, J., Yan, B., Lai, C., & Tan, H. S. (2005). What makes the difference? A practical analysis of research on the effectiveness of distance education. *Teachers College Record*, *107*(8), 1836–1884. DOI:10.1111/j.1467-9620.2005.00544.x

Zheng, G., & Aarnikoivu, M. (Forthcoming). 世纪的芬兰博士生教育改革探析：博士生院的建立和成效.

Zhou, J. (2015). International students' motivation to pursue and complete a Ph.D. in the U.S. *Higher Education*, *69*(5), 719–733. DOI:10.1007/s10734-014-9802-5

Ziguras, C., & McBurnie, G. (2015). *Governing cross-border higher education*. Routledge.

APPENDICES

Appendix 1. The interview questions (CERN, semi-structured)

1. What things in your childhood or adolescence made you want to embark on the path of academia? For example, are you from an academic family? Did your parents or relatives encourage you to pursue for a higher education degree?

2. Could you tell me about the school system in your country?

3. When did you know that your current field or profession is the right one? Did you have any other options in mind at any point?

4. Why do you want to do a doctorate? Was the decision very obvious for you to make or was there already slightly more time since completing the master's degree and the decision emerged gradually?

5. What would you want to do after you graduate?

6. How would you describe your normal work day? E.g. do you mostly work alone or with other people? In what kind of locations do you work?

7. Does you doing your PhD affect other aspects of your life, such as planning the future? If it does, how?

8. Overall, how would you describe your current situation? Are you happy with everything or would you change something?

Appendix 2. The interview questions (CALS, written interview)

1. Background information (only for the researcher)

2. Ending up in the university and the academic career

    - What things in your childhood or adolescence made you want to embark on the path of academia? For example, are you from an academic family? Did your parents or relatives encourage you to pursue for a higher education degree?
    - When did you know that your current field or profession is the right one? Did you have any other options in mind at any point?

3. Reasons for starting doctoral studies

    - Why do you want to do a doctorate? Was the decision very obvious for you to make or was there already slightly more time since completing the master's degree and the decision emerged gradually?
    - Why did you decide to apply the study right in CALS in particular? Did you have any other ideas or options regarding your postgraduate research?

4. At which stage are your studies and your thesis at the moment? How do you think the process is going in general?

5. If you are doing your PhD full time, how would you describe your normal work day? E.g. do you mostly work alone or with other people? In what kind of locations do you work? Can you distinguish between work and free time or do you think about work when you go home?

6. Research community
    - What kinds of contacts do you have with other PhD students (in CALS or elsewhere), other researchers, and supervisors, and how often?
    - Do you feel being a part of the PhD student or researcher community? If not, why?

7. Scholarly precariousness, or academic (in)security
    - If you do research full-time: Do you feel your current job situation secure or insecure? Why?

8. Does you doing your PhD affect other aspects of your life, such as planning the future? If it does, how?

9. Did these questions awake any other thoughts? Is there anything else you would like to say on the topic?

Appendix 3. The interview questions (CALS, semi-structured)

1. In this interview I would like to focus on your current situation. Could you tell me an update of where you're currently at in your doctoral studies?
    a. Which year
    b. At what point are you in your dissertation
    c. Do you have a deadline for yourself (to graduate)

2. Could you describe your typical day at work?
    a. Actions? Routines?

3. How is your current funding situation?
    a. How do you feel about doctoral funding in general?

4. Do you consider yourself as a researcher? Why (not)?

5. How would you describe the doctoral student community at SOLKI?

6. Do you think your voice as a doctoral student is heard at SOLKI? E.g. if there's something you're not happy about, do you feel you can express this freely, at least to your supervisor?

7. Not considering funding, would there be anything you would change in the way doctoral studies are organised at SOLKI or the faculty? E.g. in terms of supervision, practices?

8. Have your postdoctoral plans clarified during this year? Do you worry about what happens after you complete your PhD?

9. Anything else?

Appendix 4.

Writing clinic survey for CALS doctoral researchers and supervisors.

1. Tällä hetkellä olen... (voit valita kaikki itseäsi kuvaavat vaihtoehdot) / Right now, I am... (you can choose multiple options)

- tohtoriopiskelija / a doctoral student
- post-doc -tutkija / a post-doc researcher
- muu tutkija tai opettaja / other researcher or teacher
- muuta kuin tutkimus- tai opetushenkilöstöä / other than researcher or teacher staff
- ohjaaja / a supervisor

2. Kuinka usein osallistut tai olet osallistunut kirjoitusklinikkaan? / How often do you participate or have participated in the writing clinic?

- Aina tai lähes aina / Always or nearly always
- Muutaman kerran lukuvuodessa / A few times an academic year
- Kerran tai kaksi viimeisen kahden vuoden aikana / Once or twice within the past two years
- En koskaan / Never

3. Jos osallistut kirjoitusklinikkaan, osallistutko... / If you participate in the writing clinic, do you participate...

- fyysisesti SOLKIssa / physically at CALS
- etänä / remotely
- sekä fyysisesti että etänä, tarpeen mukaan / both physically and remotely, depending on my situation

4. Mikäli osallistut tai olet osallistunut joskus kirjoitusklinikkaan, mitkä asiat olet kokenut siinä hyödylliseksi ja miksi?Voit antaa esimerkkejä tietyistä klinikkakerroista. / If you participate or have participated in the writing clinic, what kinds of things have you found useful and why? You may provide examples.

5. Mikäli osallistut tai olet osallistunut joskus kirjoitusklinikkaan, mitkä asiat olet kokenut siinä turhiksi ja miksi?Voit antaa esimerkkejä tietyistä klinikkakerroista. / If you participate or have participated in the writing clinic, what kinds of things have you found useless and why? You may provide examples.

6. Käytkö etukäteen Yammerissa tutustumassa kirjoitusklinikan aineistoihin? / Do you visit Yammer in advance to view the writing clinic material?

7. Jos et koskaan osallistu kirjoitusklinikkaan, tai olet osallistunut vain kerran tai kaksi, miksi et osallistu useammin? / If you never participate in the writing clinic or if you have participated only once or twice, why don't you participate more often? What would make you participate more often, if anything?

8. Millaisia aiheita toivoisit kirjoitusklinikassa tulevaisuudessa käsiteltävän? / What kinds of issues and topics would you like to be discussed in the writing clinic in the future?

ORIGINAL PAPERS

I

"KUULUUKO TÄÄLTÄ, KUULUUKO NYT?": TOHTORIOPISKELIJOIDEN VERKKOVÄLITTEISEN KIRJOITUSOPETUKSEN ONGELMATILANTEIDEN NEKSUSANALYYSI

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’’KUULUUKO TÄÄLTÄ, KUULUUKO NYT?’’: TOHTORIOPISKELIJOIDEN VERKKOVÄLITTEISEN KIRJOITUSOPETUKSEN ONGELMATILANTEIDEN NEKSUSANALYYSI

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Tässä tutkimuksessa selvitimme, millaisia ongelmatilanteita tohtoriopiskelijoiden monikanavaiseen seminaaritoimintaan sisältyi. Lisäksi tutkimme, millaisia seurauksia tilanteista aiheutui. Tutkimuksen teoreettis-metodologisena viitekehyksenä käytimme neksusanalyysiä (Scollon & Scollon, 2004). Tutkimusaineistomme koostui tohtoriopiskelijoille järjestettyjen ”kirjoitusklinikoiden” aikana tehdyistä etnografisista havainnoista, klinikoissa käytetyn AdobeConnectin välityksellä käydyistä chat-keskusteluista, klinikoihin liittyvistä Yammer-keskusteluista sekä tohtoriopiskelijoille ja ohjaajille suunnatun verkkokyselyn tuloksista. Analyysimme perusteella tunnistimme kolme laajempaa kategoriaa, joihin tutkitun kontekstin ongelmatilanteet liittyivät: teknologia, toimijat ja kieli. Ongelmatilanteet veivät aikaa pois käsiteltävältä asialta, vaikeuttivat osallistumista, estivät sen kokonaan, vaikuttivat osallistumisen mielekkyyteen tai koettuun hyödyllisyyteen ja aiheuttivat muita negatiivisia tuntemuksia osallistujissa. Tutkimus ja sen tulokset siirtävät huomion siihen, mitä tapahtuu, kun haluttu tai odotettu välitteinen sosiaalinen toiminta jostain syystä estyy ja auttaa siten suunnittelemaan sitä, miten monikanavaista seminaaritoimintaa voitaisi tohtoriopinnoissa sekä muussa yliopisto-opetuksessa kehittää.

Avainsanat: monikanavainen seminaari, neksusanalyysi, tohtoriopinnot, vuorovaikutusjärjestys

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1 JOHDANTO

Tohtoriopiskelijoiden polku kohti väitöstilaisuutta ja tohtoroitumista koostuu useista erilaisista prosesseista ja toiminnoista, joiden avulla tohtorikandidaatit kehittävät tutkimustaitojaan ja rakentavat tutkijaidentiteettiään. Näiden prosessien tukemiseksi tohtoriopintoihin kuuluu väitöskirjan lisäksi tyypillisesti myös muita opintoja, joiden sisältö ja suoritustapa vaihtelevat suuresti sekä tohtoriohjelmasta että yliopistosta riippuen. Yksi varsin yleinen tällaisten muiden opintojen suoritusmuoto on seminaaritoiminta, joka voi aihepiiriltään liittyä esimerkiksi kirjoittamiseen, esiintymiseen tai tutkimusmetodeihin. Yleisin osallistumismuoto tällaisissa seminaareissa on edelleen fyysinen läsnäolo, joskin etäopiskelu on vakiinnuttanut paikkansa suomalaisessa korkeakoulutuksessa (Lehtinen & Nummenmaa, 2012). Seminaaritoimintaa, jossa opiskelijat osallistuvat sekä fyysisesti läsnäolevana että etäyhteyden avulla, on kuitenkin tutkittu melko vähän, eikä tällaiselle toiminnalle ole suomen kielessä vakiintunutta termiä. Tässä tutkimuksessa kutsumme sitä monikanavaiseksi seminaaritoiminnaksi (termistä ”monikanavainen” katso luku 2).

Koska erilaiset etäopiskelun muodot yleistyvät jatkuvasti, erilaisia viestintämuotoja ja yhteistyön tapoja yhdistelevää seminaaritoimintaa olisi tärkeä ymmärtää yhä paremmin. Tässä tutkimuksessa luomme neksusanalyyttistä viitekehystä (Scollon & Scollon, 2004) käyttäen katsauksen siihen, millaisia ongelmatilanteita tohtoriopiskelijoille suunnattuun monikanavaiseen seminaaritoimintaan sisältyy. Ongelmatilanteiden aiheuttajien lisäksi tarkastelemme sitä, mitä tapahtuu sen jälkeen, kun suunniteltu tai odotettu toiminta erilaisten tekijöiden vuoksi estyy. Tutkimuksemme empiirisenä kontekstina on Jyväskylän yliopiston Soveltavan kielentutkimuksen keskuksen (tästä eteenpäin ’Solki’) kirjoitusklinikat, jotka ovat tohtoriopiskelijoiden kirjoittamisen kehitykseen keskittyviä säännöllisiä tohtoriseminaareja. Tutkimuskysymyksemme ovat:

1) Mitkä tekijät aiheuttivat ongelmatilanteita totuttuun tai odotettuun vuorovaikutusjärjestykseen kirjoitusklinikoissa?

2) Mitä ongelmatilanteista seurasi?

Aineistomme analyysin pääasiallisina teoreettisina käsitteinä käytämme *vuorovaikutusjärjestystä* (engl. *interaction order*) (Goffman, 1983; Scollon & Scollon, 2004) sekä *välitteisen diskurssin analyysiä* (engl. *mediated discourse analysis*) (Norris & Jones, 2005; Scollon, 2001), joskin sivuamme analyysissämme myös kahta muuta neksusanalyyttistä, sosiaalista toimintaa jäsentävää käsitettä eli toimijahistorioita (*historical body)* ja paikan diskursseja (*discourses in place)* (Scollon & Scollon 2004). Tutkimusaineistomme koostuu kolmentoista Solkin kirjoitusklinikan aikana tehdyistä etnografisista havainnoista, klinikoissa käytetyn AdobeConnectin välityksellä käydyistä chat-keskusteluista, klinikkatoimintaa edeltävistä ja sitä seuraavista Yammer-yhteisöpalvelussa käydyistä keskusteluista sekä klinikkatoimintaa kartoittavan verkkokyselyn avoimista vastauksista.

2 VERKKO- JA TEKNOLOGISVÄLITTEINEN VIESTINTÄ KORKEAKOULUKONTEKSTISSA

Tutkimuksessamme yhdistyvät useat välitteisen sosiaalisen toiminnan (Scollon & Scollon, 2004) muodot, joista tärkeimmät tutkimuksen kontekstin näkökulmasta ovat verkkovälitteinen viestintä (erityisesti videokonferenssit) sekä tohtoriopiskelijoiden ohjaus (erityisesti kirjoitustaitojen kehittä-

minen ja tukeminen). Näistä molempia on tutkittu yksittäisinä ilmiöinä varsin runsaasti. Verkko- ja teknologisvälitteistä viestintää on korkeakoulukontekstissa tutkittu lähinnä oppimisen, oppimiskokemusten ja yhteistyön näkökulmasta (ks. esim. Çakıroğlu, Kokoç, Kol & Turan, 2016; Kauffmann & Frisby, 2013; Messina Dahlberg & Bagga-Gupta, 2014; Wang, Jaeger, Liu, Guo & Xie, 2013). Näissä tutkimuksissa etäosallistuminen voi tarkoittaa sekä reaaliaikaista että ei-reaaliaikaista viestintää, mutta tämän tutkimuksen kannalta näistä tärkeämpi on reaaliaikainen viestintä, esimerkiksi videokonferenssit.

Videokonferenssien järjestämiseen on nykyisin tarjolla useita ohjelmia, kuten AdobeConnect, Microsoft Teams, Zoom, BlueJeans ja Lifesize. Videokonferenssien opetuskäyttöä koskevien tutkimusten tulokset ovat ristiriitaisia. Esimerkiksi Candarlin ja Yukselin (2012) tutkimuksen mukaan korkeakouluopiskelijoiden asenteet videokonferenssin käyttöä kohtaan opetuksessa olivat varsin negatiiviset. Gilliesin (2008) tutkimuksessa videokonferenssit saivat opiskelijoilta kritiikkiä muun muassa teknisten ongelmien vuoksi, joskin he näkivät videokonferenssien käytössä potentiaalia. Sen sijaan Doggetin (2008) tutkimuksen mukaan neljä viidestä opiskelijasta suhtautui myönteisesti videokonferenssien käyttöön opetuksessa – joskin he olivat sitä mieltä, että perinteinen luokkahuoneasetelma oli parempi. Positiivinen oli myös Allenin, Bourhisin, Burrellin ja Mabryn (2002) toteuttama useamman empiirisen tutkimuksen meta-analyysi, joka paljasti, että etäopetus ei vähentänyt opiskelijoiden tyytyväisyyttä verrattuna normaaliin, kasvokkain tapahtuvaan opetukseen.

Erityisesti *tohtori*opiskelijoiden verkko-opetusta tai -oppimista ei juurikaan ole tutkittu (Candela ym., 2008). Zhao, Lei, Yan, Lai ja Tan (2005) ovat esittäneet, että etäopetus itse asiassa soveltuu parhaiten alempaan, mutta ei välttämättä enää ylempään yliopistotutkintoon, joka yleensä vaatii enemmän luovaa ja kriittistä ajattelua. Yksi tohtorikoulutuksen ja etäopetuksen käyttöä koskeva tutkimus on Rosethin, Akcaoglun ja Zellnerin (2013) tapaustutkimus, joka koski vapaasti saatavilla olevien teknologioiden (kuten WordPress) käyttöä yhteistoiminnallisessa pienryhmäoppimisessa, kuten tämän tutkimuksen kaltaisessa monikanavaisessa tohtoriseminaarissa. Roseth ym. kutsuivat tällaista seminaaria termillä ”hybrid doctoral seminar”. Tapaustutkimuksensa perusteella he suosittelivat, että seminaarien suunnittelu tulisi aloittaa 2–3 kuukautta ennen ensimmäistä tapaamista. Lisäksi sen toteuttavalla tiimillä tulisi olla monipuoliset taidot (teoreettiset, käytännön, ja teknologiset taidot), jotta seminaari onnistuisi. ”Hybrid”-termiä ovat käyttäneet myös Henriksen, Mishra, Greenhow, Cain ja Roseth (2014), mutta yksittäisen seminaarin sijaan he käyttivät termiä viittaamaan kokonaiseen tohtoriohjelmaan (engl. ”hybrid doctoral program”). Tätä tutkimusta varten suomensimme tällaisen toiminnan ”monikanavaiseksi”, sillä se kuvaa tutkimaamme toimintaa mielestämme paremmin kuin ”hybridiseminaari”.

Muita videokonferenssin onnistumisen kannalta olennaisia tekijöitä on tutkittu olevan opettajien pitkäaikaisen osaamisen kehittämisen, opiskelijoiden riittävän valmistautumisen (Andrews & Klease, 1998) ja riittävän ajan sekä rahan (Dogget, 2008; Martin, 2005). Videokonferenssitoiminnan lisäksi tämän tutkimuksen kannalta on tärkeää tarkastella myös kirjoittamista ja siihen saatua tukea. Seuraavaksi luomme tiiviin katsauksen siihen, mikä aiempien tutkimusten mukaan on oleellista tohtoriopiskelijoiden kirjoittamisen tukemisessa.

3 TOHTORIOPISKELIJOIDEN KIRJOITTAMISEN TUKEMINEN

Yksi tärkeimmistä tohtoriopintoihin liittyvistä toiminnoista on kirjoittaminen (Cotterall, 2011; Ferguson, 2009; Kamler & Thomson, 2006). Yliopistot tarjoavatkin usein monipuolista tukea akateemiseen kirjoittamiseen. Kirjoittamiskurssit eivät sellaisenaan yleensä kuitenkaan kuulu pakollisiin tohtoriopintoihin, joskin tilanne on Suomessa hiljalleen muuttumassa ohjauksen ja muiden tohtorintutkintoon kuuluvien kurssien saadessa opetussuunnitelmissa yhä enemmän huomiota. Esimerkiksi Delyser (2003) on esittänyt, että vaikka tohtoriopiskelijat saavat hyvät valmiudet tutkimuksensa tekemiseen, he eivät saa tarpeeksi valmiuksia tutkimustulostensa esittämiseen ja niistä viestimiseen. Samaa mieltä ovat myös Kamler (2008) ja Piattoeva (2016), joiden mukaan kirjallista ilmaisua painotetaan tohtorikoulutuksessa edelleen liian vähän huolimatta siitä, että akateeminen maailma nimenomaan korostaa julkaisujen ja tutkimustulosten levittämisen merkitystä. Akateemisten kirjoitustaitojen kehityksellä ei siis ole merkitystä vain yksilö-, vaan myös yliopistotasolla (Murray, 2001).

Vaikka tohtoriopiskelijoiden kirjoittamista on tutkittu paljon (ks. esim. Ferguson, 2009; Lee & Boud, 2003; Maher ym., 2008; Morss & Murray, 2001), tutkimus on keskittynyt lähinnä siihen, mitä tapahtuu, kun osallistujat jo ovat toiminnan keskiössä. On siis jäänyt vähemmälle huomiolle, mikä tällaisen toiminnan ylipäätään mahdollistaa ja mitkä sen rajat ovat. Muutamana poikkeuksena ovat esimerkiksi Johnsonin (2014), Lassigin, Dillonin ja Diezmannin (2013), Maherin, Falluccan ja Halaszin (2013) sekä Suomen kontekstissa – tosin maisteriopiskelijoita koskien – Svinhufvudin (2014) tutkimukset. Näissä mainitaan opiskelijat, jotka päättivät olla osallistumatta kirjoitustapaamisiin, osallistujien vaikeudet löytää sopivia tapaamisaikoja, tai osallistujien haluttomuus osallistua yhteiseen keskusteluun ja siihen vaikuttavat tekijät. Näistä laajimman huomion erilaisille kirjoitusopetuksen esteille, kuten esimerkiksi ajan ja tilan rajoitteille, antavat Maher ym. (2013), jotka painottavat tulostensa raportoinnissa sitä, miten kirjoitusryhmät olivat kiireisille tutkijoille suojattua aikaa suojatussa tilassa (”protected time and space”, Maher ym., 2013, s. 200). Samaisessa tutkimuksessa mainitaan hyvin lyhyesti myös osa-aikaiset opiskelijat, jotka eivät välttämättä asu lähellä yliopistoa.

Tässä tutkimuksessa haluamme nimenomaan keskittyä yllä kuvaillun kaltaisen toiminnan rajoitteisiin, joita tässä tutkimuksessa kutsumme ongelmatilanteiksi. Näiden analysoimiseksi olemme valinneet tutkimuksemme teoreettis-metodologiseksi viitekehykseksi neksusanalyysin (Scollon & Scollon, 2004, 2007), jonka peruskäsitteet esittelemme seuraavaksi.

4 TOHTORISEMINAARIT SOSIAALISENA, DISKURSIIVISENA SEKÄ VÄLITTEISENÄ TOIMINTANA: NEKSUSANALYYSIN PERUSKÄSITTEET

Tutkimuksemme teoreettis-metodologisena viitekehyksenä toimii erilaisia metodologioita ja metodeja yhdistelevä neksusanalyysi (Scollon & Scollon, 2004). Neksusanalyysi keskittyy sosiaaliseen toimintaan, erilaisiin semioottisiin resursseihin, eli niihin resursseihin, joiden avulla luomme merkitystä vuorovaikutuksessa (Kress, 2010; Scollon & Scollon, 2004), sekä näiden välisiin suhteisiin. Sen tarkoitus on valottaa erilaisten sosiaalisten ilmiöiden luonnetta tarkastelemalla tutkittavan ilmiön eri osioiden suhdetta sekä toisiinsa että varsinaiseen ilmiöön. Esimerkiksi tässä tutkimuksessa se tarkoittaa sitä,

miten yksittäisen tohtoriseminaarin tapahtumat (tekstistä keskustelu tai etäyhteyden katkeaminen) kytkeytyvät toisiinsa, mutta samalla myös laajemmin tohtoriopiskelijan kirjoittamisen kehitykseen.

Neksusanalyysin periaatteiden mukaisesti toistuvasti tapahtuvaa sosiaalista toimintaa voidaan kutsua *sosiaaliseksi käytänteeksi* (*social practice*), jossa 1) *vuorovaikutusjärjestys* (*interaction order)*, 2) *paikan diskurssit* (*discourses in place)* sekä 3) *toimijahistoriat (historical bodies)*[1] kietoutuvat toisiinsa. Näitä kolmea sosiaalisen toiminnan ulottuvuutta kartoittamalla tutkija kykenee sukeltamaan tutkittavan ilmiön pinnan alle ja muodostamaan tutkimuskysymykset sitä kautta. (Scollon & Scollon, 2004.) Tämän tutkimuksen kannalta hedelmällisin näistä kolmesta käsitteestä on ensimmäinen, *vuorovaikutusjärjestys*. Se viittaa siihen, miten vuorovaikutus järjestäytyy ja miten toimijat luovat sen yhdessä eri tilanteissa. Goffmanin (1983) mukaan eri tilanteissa on mukana erilaisia historiallisesti rakentuneita normeja ja odotuksia sekä jokaisen toimijan omat kulttuuriset odotukset ja kokemukset aiemmista vuorovaikutustilanteista. *Paikan diskurssit* puolestaan viittaavat niihin sosiaalisiin käytänteisiin, kieleen ja objekteihin, jotka ovat tutkittavan ilmiön kannalta olennaisimpia (Scollon & Scollon, 2004). Viimeinen, *toimijahistoriat*, viittaa sosiaalisen toiminnan keskiössä olevien toimijoiden fyysiseen kehoon ja sen historiaan, mutta myös toimijoiden erilaisiin rooleihin ja siihen, miten esimerkiksi heidän henkilökohtaiset kokemuksensa, tavoitteensa ja motivaationsa vaikuttavat toimintaan.

Esimerkiksi vaikkapa säännölliseen kirjoitustyöpajaan osallistuvilla sekä niitä järjestävillä toimijoilla on erilaisia, aiempaan kokemukseen, järjestäjiltä saatuihin tietoihin tai muilta osallistujilta kuultuihin kokemuksiin perustuvia odotuksia siitä, mitä kirjoitustyöpajassa tapahtuu ja miten ja mistä siellä keskustellaan. Nämä normit ovat sitä tutumpia, mitä useammin kukin toimija on vastaavanlaiseen tilanteeseen osallistunut. Koska Scollon ja Scollon (2004) laajentavat Goffmanin (1983) vuorovaikutusjärjestyksen käsitteen koskemaan kasvokkaisviestinnän lisäksi myös teknologian kautta tapahtuvaa viestintää, tutkijan tulisi kiinnittää huomio myös siihen, miten teknologiaa käytetään. Lisäksi on tärkeä huomioida, miten toimijat tilassa liikkuvat tai miten he tilaan asettautuvat; esimerkiksi onko joku puheenjohtajamaisessa roolissa, missä mahdollinen puheenjohtaja tai puhujat istuvat tai seisovat ja niin edelleen.

Tällaiseen *välitteiseen toimintaan* (esim. Wertsch, 1998) liittyy tutkimuksemme toinen teoreettinen, vuorovaikutusjärjestystä laajempi käsite, *välitteinen diskurssianalyysi* (engl. *mediated discourse analysis*). Välitteinen diskurssianalyysi on neksusanalyysin taustalla vaikuttava diskurssintutkimuksen suuntaus, joka laajentaa diskurssien tutkimuksen koskemaan tekstien analyysin lisäksi myös toiminnan, kulttuuristen työkalujen sekä toiminnan sosiaalisten seurausten analyysiä (Norris & Jones, 2005). Tämäkään analyysisuuntaus ei kuitenkaan ole syntynyt tyhjästä, vaan se on saanut vaikutteita Vygotskyn (1978, 1987) ja myöhemmin Wertschin sekä

[1] Näistä kolmesta sosiaalisen toiminnan osa-alueesta ainoastaan *vuorovaikutusjärjestys* on suomen kielessä jokseenkin vakiintunut. *Historical body* -käsitteelle on esitetty suomennokseksi *toimijahistoriaa* (Rautiainen-Keskustalo ym., 2014), *historiallista elämäkertaa* (Pietikäinen, 2012), *toimijan elämänhistoriaa* (Karjalainen, 2015), *elämänhistoriaa* (Virtanen, 2017) sekä *toimijan elämänhistoriaa* (Strömmer, 2017). *Discourses in place* -käsitteelle on puolestaan tarjottu suomennokseksi mm. *paikan diskursseja* (Rautiainen-Keskustalo ym., 2014), *diskursseja* (Pietikäinen, 2012; Strömmer, 2017), sekä *tilanteisia diskursseja* (Virtanen, 2017). Valitsimme *toimijahistorian* samoin perustein kuin Rautiainen-Keskustalo ym. (ks. 2014, s. 21). *Paikan diskurssit* puolestaan valitsimme käännökseksi siitä syystä, että diskurssit ovat riippuvaisia tietystä tilanteesta ja paikasta. Tästä näkökulmasta *tilanteiset diskurssit* olisi aivan yhtä hyvä käännös. Valitsimme näistä kuitenkin kirjaimellisemman käännöksen.

hänen kollegoidensa työstä (ks. Penuel & Wertsch, 1995; Wertsch, 1991, 1995, 1998). Välitteisen diskurssianalyysin tausta-ajatuksena on se, että toiminta materialisoituu toimijoissa ja objekteissa (Scollon, 2001), kuten esimerkiksi teknologiassa. Siispä välitteisen diskurssianalyysin periaatteiden mukaisesti ymmärryksemme tietystä sosiaalisesta tilanteesta kasvaa merkittävästi, mikäli laajennamme analyysiä pelkkien tekstien ulkopuolelle (Norris & Jones, 2005). Välitteisen diskurssianalyysin kohteena on siis erilainen välitteinen toiminta (engl. *mediated action*), joka Wertschin (1998) mukaan keskittyy kahteen elementtiin: toimijaan (*agent*) ja välittäjään (*mediational means*), joiden välillä on jatkuva jännite. Tämä on seurausta siitä, että jokaisella välittäjällä on oma historiansa ja käyttötarkoituksensa. Eri välittäjät voivat siis mahdollistaa tai rajoittaa tiettyjä toimintoja. (Jones & Norris, 2005).

Vaikka sosiaalisen toiminnan kaikki osa-alueet (vuorovaikutusjärjestys, paikan diskurssit ja toimijahistoria) kuuluvat olennaisena osana neksusanalyysiin, emme tämän tutkimuksen rajoissa voineet analysoida kaikkia yhtä laajasti. Tutkittavan toiminnan luonteen vuoksi olemme valinneet pääasialliseksi analyysin kohteeksi vuorovaikutusjärjestyksen. Viittaamme tulosten raportoinnissa kuitenkin myös paikan diskursseihin ja toimijahistorioihin osoittaaksemme, kuinka nämä kolme ovat kytköksissä toisiinsa ja tutkittavaan seminaaritoimintaan laajemmin.

5 SOLKIN KIRJOITUSKLINIKKA JA SEN VUOROVAIKUTUSJÄRJESTYKSEN NORMIT

Tekeillä olevassa väitöskirjassaan Aarnikoivu, toinen kirjoittajista, tarkastelee tohtoriopiskelijoiden polkua sosiaalisen toiminnan näkökulmasta neksusanalyyttistä lähestymistapaa käyttäen. Tutkimustaan varten hän keräsi osan aineistostaan Solkissa, Jyväskylän yliopistossa tammikuun 2016 ja toukokuun 2017 välillä. Solki on erikoistunut tarkastelemaan kielikoulutuksen tavoitteita, käytänteitä ja politiikkaa ja sen tutkimuksen painoalat ovat kielitaidon arviointi, kielitaidon kehittyminen erilaisissa konteksteissa ja toimintayhteisöissä, sekä kielikoulutuspolitiikka. Keskuksessa on kaikkiaan noin 50 tohtoriopiskelijaa. Vain noin joka neljäs tohtoriopiskelija tekee väitöskirjaansa päätoimisesti joko yliopiston tai jonkun säätiön rahoituksella. Sivutoimisten tohtoriopiskelijoiden joukko onkin Solkin tohtorituotannon näkökulmasta merkittävä: suurin osa viime vuosien väitöskirjoista on valmistunut vähintään osittain työn ohessa, sivutoimisena ja käytännössä etänä. Työelämästä väitöskirjan tekijöiksi lähteneillä on myös kulunut jo jonkin aikaa edellisistä akateemisen kirjoittamisen kokemuksista. Etäopiskelijoiden määrää lisää myös Solkin rekrytointipohjan laajuus: Solkin kansallinen erityistehtävä erityisesti kielitaidon arvioinnissa ja kielikoulutuspolitiikassa laajentaa tohtoriopiskelijoiden rekrytointipohjan Jyväskylän ulkopuolelle, ja viime vuosina kansainvälisten tohtoriopiskelijoiden määrä on lisääntynyt selvästi.

Kirjoitusklinikkatoimintaa alettiin kehittää vuoden 2014 lopulla. Alun perin tavoitteena oli edistää etänä ja osa-aikaisesti opiskelevien integroitumista tutkijayhteisöön, mutta pian huomattiin, että kokoaikaisesti ja fyysisesti paikan päällä opiskelevilla oli samat tarpeet. Perinteisten tutkimusseminaarien järjestämistä jatkettiin samalla, mutta kirjoitusklinikat haluttiin pitää mahdollisimman matalan kynnyksen tapahtumina, joissa voitiin käsitellä jatko-opiskelua epämuodollisestikin. Solkin niin sanottu minipooli eli tuolloisen pedagogisen johtajan (tämän artikkelin kirjoittaja Saarinen) tueksi perustettu työryhmä sai parina vuonna tiedekunnalta rahoitusta, jolla hankittiin koulutusta ohjaajille ja tarvittavat välineet verkkoseminaareihin.

Kirjoitusklinikoissa käsitellään[2] kerrallaan joko yhden tai kahden tohtoriopiskelijan sen hetkistä kirjoitusprojektia (esim. artikkelia, artikkelin tai monografian osaa, tutkimussuunnitelmaa tai rahoitushakemusta). Klinikan aiheena voi myös olla jokin yleinen kirjoittamisen ilmiö, kuten esimerkiksi artikkeliväitöskirjan yhteenveto, yhteiskirjoittaminen tai tieteidenvälisen tutkimuksen tekeminen. Klinikoissa on myös käyty läpi esitarkastus- ja väitösprosessia. Tarkoituksena on siis ennen kaikkea *puhua kirjoittamisesta ja teksteistä*, ei kirjoittaa. Varsinaisen kirjoittamisen on tarkoitus tapahtua ennen klinikkatapaamista ja sen jälkeen.

Vaikka kirjoitusklinikka on käsiteltävien tekstien osalta melko joustava, vuosien myötä klinikkatoiminta on vakiintunut tietynlaiseksi, ja sitä koskevat tietyt vuorovaikutusjärjestykseen liittyvät säännöt, jotka tulevat esille esimerkiksi klinikkakerroista muistuttavissa sähköposteissa. Klinikkatapaamisia varten tulee yleensä valmistautua. Mikäli tapaamisessa käsitellään tohtoriopiskelijan artikkelia tai sen osaa, hän lähettää tekstin tai muun materiaalin etukäteen Solkin tohtoriopiskelijoiden omaan Yammer-yhteisöpalveluryhmään viimeistään kahta päivää ennen klinikkatapaamista. Klinikkaan osallistuvat voivat ladata tekstin Yammerista, lukea sen etukäteen ja kirjoittaa ylös kommentteja, jotka he antavat kirjoittajalle klinikassa. Joskus kirjoittaja saa kommentteja etukäteen sähköpostitse. Toisinaan myös ne, jotka eivät pääse osallistumaan klinikkatapaamiseen, lähettävät kirjoittajalle omat kommenttinsa sähköpostitse. Mikäli viittomakielen tulkit osallistuvat tapahtumaan, myös he voivat ladata Yammerista tekstit ja materiaalit etukäteen valmistuakseen tulkkaukseen.

Tapaamiset kestävät puolitoista tuntia, ja niihin on mahdollista osallistua joko paikan päällä Solkissa tai etäyhteyden avulla. Etäyhteyden muodostamisessa käytettiin aineistonkeruun aikaan AdobeConnect -ohjelmaa, joka mahdollistaa sekä ääni- että videoyhteyden osallistujien välillä. AdobeConnect -huoneella on aina yksi tai kaksi ylläpitäjän roolissa olevaa henkilöä, jotka varmistavat sekä varttia ennen klinikkaa että sen aikana, että mikrofonit sekä muu tekniikka toimivat. Tilaisuus on suunnattu lähinnä tohtoriopiskelijoille, mutta teemasta riippuen siihen osallistuu myös muuta Solkin väkeä, kuten jo väitellyttä tutkimushenkilökuntaa, etenkin väitöskirjan ohjaajia. Klinikan kieli sovitaan jokaisen session alussa, ja se on aina joko suomi tai englanti. Paikalla on myös tarvittaessa kaksi viittomakielen tulkkia. Lukuvuonna 2016–2017 kirjoitusklinikoita järjestettiin kolmen viikon välein, yhteensä 10 kappaletta. Yksittäisten kirjoitusklinikoiden osallistujamäärä vaihteli muutamasta lähes kahteenkymmeneen.

6 TUTKIMUSAINEISTO JA -METODIT

Neksusanalyysiin kuuluu olennaisena osana niin sanottu navigointi, jonka tarkoituksena on löytää tutkittavan ilmiön kannalta olennaiset toimijat, tapahtumat, diskurssit ja objektit. Tohtoriopintoja koskevaa väitöskirjaaineistoa kerätessään Aarnikoivu huomasi, miten olennainen ja tärkeä osa tohtoriopintoja säännöllisesti järjestettävät kirjoitusklinikat Solkissa olivat. Koska Aarnikoivu havainnoi useimpia klinikoita etäosallistujana, hänen huomionsa kiinnittyi erityisesti siihen, miten teknologia (esim. tietokoneet, videokonferenssialusta AdobeConnect, äänentoistolaitteet, Yammer-yhteisöpalvelu)

[2] Vuonna 2019 kirjoitusklinikat yhdistettiin virallisesti muuhun Solkin tohtoriseminaaritoimintaan, jolloin myös ”kirjoitusklinikka”-nimestä luovuttiin ja Yammer-yhteisöpalvelu ja AdobeConnect vaihtuivat Microsoft Teams-sovellukseen. Kirjoitustapaamisten toimintaperiaatteet kuitenkin säilyivät samoina, minkä vuoksi käytämme tässä artikkelissa selvyyden vuoksi preesens-aikamuotoa kirjoitusklinikoista puhuttaessa.

sekä mahdollisti että rajoitti niiden tohtoriopiskelijoiden (tai ohjaajien) osallistumista, jotka eivät olleet fyysisesti seminaaritilassa. Kuten neksusanalyysin periaatteisiin (Scollon & Scollon, 2004) kuuluu, tämä huomio puolestaan määritteli Aarnikoivun myöhempää aineistonkeruuta. Hänen tekemiensä havaintojen motivoimana päätimme myös toteuttaa tämän tutkimuksen.

Koska Aarnikoivun tekemät kenttähavainnot olivat osa laajempaa väitöskirjatutkimusta, niissä keskityttiin kirjoitusklinikkatoiminnan lisäksi myös muihin tohtoriopintoja koskeviin teemoihin. Saadaksemme vastaukset tässä artikkelissa esitettyihin tutkimuskysymyksiin irrotimme Aarnikoivun keräämästä laajasta aineistosta kirjoitusklinikkaa koskevat osuudet: kolmentoista eri klinikkatapaamisen kenttähavainnot, AdobeConnect -chat-keskustelut sekä jokaista tapaamista edeltävät ja seuraavat Yammer-keskustelut (välillä tammikuu 2016–toukokuu 2017). Lisäksi laadimme tätä tutkimusta varten myös kirjoitusklinikkaa koskevan verkkokyselyn (Webropol), joka lähetettiin sähköpostilinkillä kaikille Solkin 85:lle sen hetkiselle tohtoriopiskelijalle ja ohjaajalle huhtikuussa 2017. Heistä kyselyyn vastasi 30. Verkkokyselyssä oli kahdeksan kysymystä ja ne olivat sekä suomeksi että englanniksi. Kysymykset sisälsivät neljä vastaajien taustatietoja ja klinikkaan osallistumista kartoittavaa monivalintakysymystä sekä neljä klinikan hyötyjä, haittoja ja kehittämistä koskevaa avointa kysymystä. Kyselyyn vastaaminen oli anonyymiä.

Neksusanalyysille tyypillistä on varsin monipolvinen analyysiprosessi, joka usein alkaa jo aineistonkeruuvaiheessa – niin myös tässä tutkimuksessa, kuten aiemmin tässä luvussa olemme kuvanneet. Ennen tämän tutkimuksen tarkempaa analyysiä olimme siis jo käyneet aineistoa läpi monesta eri näkökulmasta, päätyen lopulta johdannossa esitettyihin kahteen tutkimuskysymykseen. Jotta analyysi olisi mahdollisimman systemaattinen, toteutimme analyysin kahdessa vaiheessa. Ensimmäistä tutkimuskysymystä varten (ongelmatilanteiden aiheuttajat) kävimme koko aineiston läpi induktiivisella sisällönanalyysillä (esim. Hsieh & Shannon, 2005; Mayring, 2000). Toista tutkimuskysymystä varten (ongelmatilanteiden seuraukset) sen sijaan tarkastelimme sisällönanalyysin paljastamia tilanteita välitteisen diskurssianalyysin sekä vuorovaikutusjärjestyksen näkökulmasta. Havainnollistamme analyysiprosessin kulkua ohessa olevasta taulukosta löytyvien kahden aineistoesimerkin avulla:

TAULUKKO 1. Aineiston analyysiprosessi.

Aineistoesimerkki	1. tutkimuskysymys (sisällönanalyysi, olennaiset kohdat alleviivattu): **Mitkä tekijät aiheuttivat ongelmatilanteita totuttuun tai odotettuun vuorovaikutusjärjestykseen kirjoitusklinikoissa?**	2. tutkimuskysymys (näkökulma: välitteinen diskurssianalyysi, vuorovaikutusjärjestys, olennaiset kohdat lihavoitu): **Mitä ongelmatilanteista seurasi?**
[klinikan järjestäjä]: täällä on paikalliselta koneelta päivitykset tekemättä, **näyttää ettette nyt pysty osallistumaan** :(tuossa päivittää päivitystä 1 / 20 [osallistuja 1]: Näätkö viestit? [klinikan järjestäjä]: näen viestit, **ja voidaan vielä kokeilla [osallistuja 3:n] koneella** [osallistuja 1]: **Mä laitan mun kommentit [esittäjälle] spostin kautta.** [osallistuja 1]: Ok, mä pysyn joka tapauksessa täällä langoilla. Käskekää pois jos kuva/ääni/jokin aiheuttaa ongelmia. [klinikan järjestäjä]: nyt pitäis toimia ääni [osallistuja 2]: kuuluu [osallistuja 1]: Kuuluu [osallistuja 2]: jep [osallistuja 1]: lakkas kuulumasta. Mutta jatkakaa ja yhteys palaa jos palaa [klinikan järjestäjä]: kuuluuko nyt? [osallistuja 2]: mikki näyttäis olevan mutella? [klinikan järjestäjä]: argh... [klinikan järjestäjä]: nyt? [osallistuja 2]: ei, **no mulla on myös kommentit tossa wordissa, laitan ne joka tapauksessa [esittäjälle] sähköpostilla** [klinikan järjestäjä]: Moi, bye bye, ikävä kyllä ei toimi, **nyt jatketaan muilla välineillä!** [osallistuja 2]: jep, moi [osallistuja 1]: Ok, moi *(Chat-keskustelu AdobeConnectissa, 13.1.2016)*	Tämä esimerkki on ote erään kirjoitusklinikan alussa käydystä AdobeConnect chat-keskustelusta. Tässä klinikassa etäosallistujia oli kaksi (osallistujat 1 ja 2). Klinikan aluksi klinikan järjestäjä ilmoittaa, että seminaaritilan konetta ei ole päivitetty. Tämä on sekä teknologiaan liittyvä ongelma, mutta toisaalta myös toimijoihin liittyvä ongelma, sillä päivitykset olisi mahdollista tarkastaa ja tehdä etukäteen. Lopulta kone päivittyy, mutta teknologiaongelmat jatkuvat: ääniyhteys seminaaritilasta etäosallistujille ei toimi.	Tässä esimerkissä teknologiaan ja toimijoihin liittyvät ongelmat aiheuttavat ensiksi klinikan viivästymisen. Päivitysten valmistumisen jälkeen teknologiaa (tässä tapauksessa ääniyhteyttä) ei kuitenkaan edelleen saada toimimaan. Tämä aiheuttaa sen, että etäosallistujat eivät voi lainkaan osallistua. Sen sijaan he lähettävät esittäjälle kommenttinsa sähköpostitse.

Kävimme koko aineiston läpi yllä olevan taulukon kuvaamalla tavalla. Tämän jälkeen järjestimme ensimmäisen tutkimuskysymysten löydökset kolmeksi laajemmaksi temaattiseksi kategoriaksi. Nämä kolme kategoriaa sekä niistä kuhunkin liittyvät seuraukset esittelemme seuraavaksi tulososiossa.

7 TULOKSET: KIRJOITUSKLINIKAN ONGELMATILANTEET JA NIIDEN SEURAUKSET

Analyysimme perusteella tekijät, jotka aiheuttivat ongelmatilanteita kirjoitusklinikoiden vuorovaikutusjärjestykseen, voidaan jaotella kolmeen laajempaan kategoriaan: **1) teknologia, 2) toimijoihin liittyvät tekijät** sekä **3) kieleen liittyvät tekijät.** Haluamme kiinnittää huomion siihen, mitä ongelmatilanteiden aikana ja jälkeen tapahtuu ja miten se vaikuttaa klinikkatoimintaan. Tässä luvussa analysoimme tulokset kategorioittain.

7.1 Teknologia

> [klinikan järjestäjä]: moi [osallistuja 1]
> [osallistuja 1]: moi!
> [klinikan järjestäjä]: kuuluuko täältä?
> [osallistuja 1]: ei
> [klinikan järjestäjä]: kuuluukos nyt
> [osallistuja 1]: ei
> [klinikan järjestäjä]: kuuluuko nyt
> [osallistuja 1]: no nyt ilmestyi mikrofonin kuva tuonne sun nimen viereen ja kuuluu jotain kaukaista muminaa
> [osallistuja 1]: joo kuuluu vähäsen, ehkä vähän volyymejä voisi nostaa?
>
> (AdobeConnect -chat-keskustelu, kirjoitusklinikka 13.1.2016)

Yllä oleva aineistoesimerkki kuvaa hyvin sitä tapaa, jolla useimmat tutkimusta varten havainnoiduista kirjoitusklinikoista alkoivat. Joskus tämänkaltainen keskustelu kesti pari minuuttia, toisinaan taas paljon pidempään. Kategorioista ensimmäinen, teknologia, sisältää siis erilaiset teknologiaan ja sen käyttöön liittyvät ongelmat, joista yleisin liittyi ääniyhteyteen: joko etäosallistujat eivät kuulleet seminaaritilassa olevia osallistujia (tai toisin päin) lainkaan, tai kuuluvuus seminaaritilasta etäosallistujien suuntaan oli huono tai pätkivä. Teknologiset ongelmat materialisoituivat ennen kaikkea käytössä olleisiin mikrofoneihin, ja monet keskustelut keskittyivät mikrofonin siirtelyyn tai sen toimivuuden tarkasteluun. Osallistujat tuntuivat tunnistavan mikrofonin paitsi tilaan liittyvänä tekijänä, myös yhtenä toimijana. Ongelmia oli tosin muitakin: toisinaan etäosallistujat eivät saaneet videokuvaa seminaaritilasta. Myös selaimen tai tietokoneen päivitykset – tai lähinnä niiden puutteiden aiheuttamat ongelmat – olivat havaittavissa aineistosta.

Teknologian toimimattomuus vaikutti sekä fyysisesti läsnä oleviin osallistujiin että etäosallistujiin. Ensimmäinen seuraus oli klinikassa käytetty aika. Jos teknologian kuntoon saaminen vei aikaa, tämä oli luonnollisesti pois käsiteltävää tekstiä varten varatusta ajasta. Toinen seuraus oli klinikan sujuvuus: mikäli teknologiset ongelmat ilmaantuivat kesken klinikkatapaamisen, keskeytti se vuorovaikutusjärjestyksen ja keskittymisen käsiteltävään aiheeseen. Sujuvuuteen liittyi myös kolmas seuraus – viestintävälineen vaihto. Joskus etäosallistujaa itseään ei kuultu seminaaritilassa, jolloin etäosallistujan tuli vaihtaa viestintävälinettä mikrofonista AdobeConnectin chat-ikkunaan kirjoittamiseen. Tämä puolestaan hidasti vuorovaikutusta merkittävästi ja esti sujuvan ja nopean puhedialogin.

Kolmas teknologiaan liittyvien ongelmatilanteiden seuraus oli klinikkaan osallistumisen osittaisuus tai sen kokonainen estyminen. Esimerkiksi viestintävälineen vaihto puheesta chat-ikkunaan kirjoittamiseen hidasti ja vaikeutti etäosallistujien täysinäistä osallistumista. Tämä puolestaan vaikutti osallistumisen mielekkyyteen ja ulkopuolisuuden tunteiden heräämiseen, mikä tuli ilmi verkkokyselyn vastauksista. Tähän saattoi vaikuttaa myös se, ettei seminaaritilasta ollut aina saatavilla videokuvaa. Tällöin etäosallistujat joutuivat

turvautumaan muiden osallistujien ääneen, eivätkä välttämättä aina tienneet, kenelle ääni kuului. Lisäksi harvoissa tilanteissa etäosallistuminen ei ollut lainkaan mahdollista, jos useista yrityksistä huolimatta mikrofoniyhteyttä seminaaritilasta etäosallistujien suuntaan ei saatu toimimaan. Kun ilman videokuvaa osallistuminen oli vielä osittain mahdollista, ilman ääntä siitä tuli täysin mahdotonta. Tämä taas johti siihen, että myös fyysiset osallistujat saivat vähemmän palautetta teksteistään.

7.2 Toimijat

Analyysista noussut toinen kategoria, toimijoihin liittyvät tekijät, sisälsi varsin monipuolisia syitä, jotka vuorovaikutusjärjestyksen lisäksi olivat vahvasti sidoksissa myös toimijahistorioihin, esimerkiksi osallistujien (tai mahdollisten osallistujien) henkilökohtaiseen tilanteeseen. Joko osallistujia ei ollut tarpeeksi (esim. potentiaalisten osallistujien muut kiireet, etäosallistuminen epämielekkyys, klinikan aihetta ei koettu relevantiksi oman työn kannalta) tai teknologiset ongelmat johtuivat inhimillisistä tekijöistä (esim. tekemättömät tietokoneen päivitykset). Nämä tekijät aiheuttivat osin samoja, osin erilaisia seurauksia kuin teknologian toimimattomuus. Esimerkiksi potentiaalisten osallistujien kiireet aiheuttivat sen, että klinikan osallistujamäärät vaihtelivat suuresti klinikkakerrasta riippuen muutamasta osallistujasta yli kymmeneen. Vaikka kaikki keskustelu ja palaute koettiin usein hyödylliseksi, verkkokyselyn tulokset osoittivat, että aktiivisempaa osallistumista klinikkaan olisi kaivattu:

> ”Mielestäni klinikka ei toimi yhtä hyvin ilman aktiivista osallistumista. Toivon, että useammat ihmiset voisivat osallistua, ja ne, jotka osallistuvat olisivat aktiivisempia (esim. kommentoimaan tai keskustelemaan).” (tohtoriopiskelija)

Osallistujien puute tai osallistujien epäaktiivisuus koettiin siis siten, ettei klinikasta saanut kaikkea sitä irti, mitä siitä olisi voinut mahdollisesti saada.

Toinen klinikan toimijoihin ja sen hyötyihin liittyvä tekijä oli se, ettei klinikassa käsiteltävää materiaalia jaettu muille Yammerissa riittävän ajoissa, jolloin muut osallistujat eivät ehtineet tutustua siihen kunnolla antaakseen klinikassa siitä kunnollista palautetta. Useimmiten materiaali kuitenkin jaettiin sovittua kahta päivää aikaisemmin, mutta palautetta ei valmisteltu kunnolla siitä huolimatta. Kuten huono mikrofonin toimivuus ja kuuluvuus etäosallistujille, myös tämä tekijä vaikutti klinikan hyödyllisyyteen ja mielekkyyteen:

> ”Kirjoitusklinikka onnistuu, jos a) kirjoittaja on ehtinyt lähettää tekstin muille luettavaksi ajoissa b) muut ovat ehtineet tutustua tekstiin. Näiden kahden seikan puuttuminen luonnollisesti on joskus aiheuttanut turhauttavia kokemuksia.” (tohtoriopiskelija)

Lisäksi osa verkkokyselyyn vastanneista oli sitä mieltä, että klinikkakerran kulkua ei välttämättä aina ohjailtu riittävästi: Verkkokyselyyn vastanneet antoivat palautetta siitä, että toisinaan yksittäisten ihmisten puheenvuorot olivat liian pitkiä, kun taas toiset saivat puhua liian vähän aikaa. Tyytymättömyyttä herätti siis sovittujen ja vakiintuneiden raamien puute:

> ”[E]hkä palautteen antamista voisi hieman ohjailla niin, että jokainen paikalla oleva ohjaaja (ja miksei opiskelijakin) antaa palautetta vain siitä tekstinosasta, jota juuri sillä hetkellä käsitellään, eikä siten, että yksi sanoo kaiken sanottavansa yhdellä kertaa. Silloin voi käydä niin, että muiden puheenvuorot jäävät tarpeettoman lyhyiksi.” (tohtoriopiskelija)

> ”Yleinen keskustelu on joskus liian pitkä, eikä meillä ole tarpeeksi aikaa käsitellä varsinaista tekstiä, mikä on sääli.” (ohjaaja)

7.3 Kieli

Viimeisenä laajempana kategoriana, joka aineistostamme nousi vuorovaikutusjärjestyksen häiriintymisen, mutta myös toimijahistorioiden näkökulmasta, oli klinikoiden aikana käytetty kieli. Koska Solkin ohjaajat ja tohtoriopiskelijat puhuvat useita eri kieliä äidinkielenään ja esimerkiksi englannin ja suomen taidot vaihtelevat suuresti, se aiheutti haasteita myös kirjoitusklinikan kielipolitiikkaan. Joko klinikassa käsitelty artikkeli oli kielellä, jota muut potentiaaliset osallistujat eivät ymmärtäneet eivätkä siten osallistuneet, tai klinikan aikana käytetystä kielestä ei neuvoteltu klinikan alussa, vaan sen sijaan kielen oletettiin olevan joko suomi tai englanti, koska käsitelty teksti oli näistä jommallakummalla kielellä.

Kieltä koskevat havainnot ja verkkokyselyn avoimet vastaukset olivat kaikista ristiriitaisimpia. Tätä havainnollistavat hyvin kaksi seuraavaa aineistonäytettä. Niistä ensimmäisessä kirjoittajalla on kaksi toivetta:

> ”Toivoisin myös, että kielipolitiikka olisi aidosti vapaa, ts. että englantia ja suomea voisi käyttää tasa-arvoisesti. Toivon myös, että erityisesti Suomesta ja [Jyväskylän yliopistosta] rahoitettavat tohtoriopiskelijat näkisivät sen vaivan, että opiskelisivat suomea edes auttavasti. Siitä on hyötyä heille itselleenkin viimeistään siinä vaiheessa, kun hakevat töitä Suomesta.” (ohjaaja)

Ensiksi tämä vastaaja siis toivoi, että kielipolitiikka olisi ”aidosti vapaa”, jolla hän viittaa siihen, että klinikoiden aikana voisi käyttää vapaasti joko suomea tai englantia. Tähän klinikoissa pyrittiinkin lähettämällä esimerkiksi kaikki klinikkatapaamisia koskevat sähköpostit ja Yammer-viestit sekä suomeksi että englanniksi. Lisäksi klinikkatapaamisten aikana kuultiin usein sekä suomea että englantia. Kaiken puhutun kielen simultaani- tai konsekutiivitulkkaus ei kuitenkaan ollut mahdollista, viittomakieltä lukuun ottamatta. Sen sijaan klinikoiden alussa usein sovittiin, millä kielillä osallistujat halusivat toimia. Usein kuitenkin esimerkiksi käsiteltävän tekstin kieli oli rajannut osallistujat jo valmiiksi niin, etteivät esimerkiksi suomea puhumattomat tohtoriopiskelijat tai ohjaajat osallistuneet lainkaan sellaiseen klinikkaan, jossa käsiteltävän tekstin kieli oli suomi.

Toiseksi vastaaja toivoi, että ulkomaalaiset tohtoriopiskelijat, jotka saavat rahoituksensa suomalaisesta lähteestä, opiskelisivat suomea edes auttavasti, koska siitä olisi hyötyä heille myös tulevaisuuden kannalta. Tämä ei kuitenkaan ollut kaikkien vastaajien mielestä riittävää tutkimukseen liittyvän keskustelun näkökulmasta, kuten käy ilmi alla olevasta verkkokyselyn vastauksesta. Tämän vastaajan mielestä vain omalla äidinkielellä (joka tässä tapauksessa on suomi) on mahdollista selittää riittävän tarkasti, mistä tutkimuksessa tai sen eri käsitteissä on kyse:

> ”Ymmärrän, että englanniksi tulee pystyä keskustelemaan/ esittämään/ perustelemaan, mutta jokainen meistä tietää, että esimerkiksi käsitteistön selittäminen toisella kielellä on melko haastavaa (kun se voi olla vaikeaa myös suomeksi), etenkin niin, että tulee varmasti oikein ymmärretyksi. Se toisinaan turhauttaa, että jää aina vähän epäselväksi, että meniköhän ihan oikein kaikki. Mielestäni omalla äidinkielellä tulee olla oikeus tulla kuulluksi ilman, että joudut sitä kovasti penäämään. Syvälliseen keskusteluun pystyy vain omalla kielellä.” (tohtoriopiskelija)

Näiden esimerkkien sekä aineistosta löytyvien muiden kieleen liittyvien ongelmatilanteiden perusteella voidaankin siis todeta, että teknologiaan ja toimijoihin liittyvien ongelmatilanteiden ohella myös kieli voi joko rajoittaa kirjoitusklinikkaan osallistumista tai jopa kokonaan estää sen. Tämä

tietysti vähentää klinikkaan osallistuvien tohtoriopiskelijoiden, ohjaajien ja sitä kautta käsiteltävästä tekstistä saadun palautteen määrää.

8 POHDINTA

Ymmärtääksemme analyysimme perusteella nousseita kolmea kategoriaa paremmin, meidän on palattava Goffmanin (1983) vuorovaikutusjärjestyksen määritelmään, eli siihen, miten vuorovaikutus tietyssä tilanteessa järjestäytyy ja miten tilanteen toimijat sen eri tilanteissa luovat. Pohtiaksemme tuloksia tästä näkökulmasta, meidän on kuitenkin ensin pohdittava sitä, mitä Solkin kirjoitusklinikan normit tai toimijoiden kulttuuriset odotukset sekä kokemukset ovat, ja mistä ne kumpuavat.

Kirjoitusklinikkatoiminta alkoi vuonna 2014, joten sen käytännöt olivat vakiintuneet siihen mennessä, kun tämän tutkimuksen aineisto kerättiin vuosina 2016 ja 2017. Käytännöistä olivat sopineet klinikan järjestäjät, jotka viestivät käytännöistä klinikan osallistujille joko sähköpostitse tai klinikan aikana. Pikkuhiljaa nämä kirjoittamattomat ja kirjoitetut normit olivat tulleet tutuiksi niille, jotka osallistuivat klinikkaan säännöllisesti. Toisin kuin tekstien lähettäminen ajoissa ja niihin ennalta tutustuminen, mikä oli klinikkaan osallistujien sopima ja yleisessä tiedossa oleva sääntö, klinikan aikana tapahtuvan keskustelun rakenteesta ja puheenvuorojen pituudesta sen sijaan ei ollut virallisesti sovittu. Jokaisella klinikkakerralla oli yksi puheenjohtaja, joka ohjasi keskustelua. Kuten analyysimme toimijoita koskevassa osiossa tulikin ilmi, verkkokyselyn perusteella vaikutti siltä, että myös itse keskustelun vuorovaikutusjärjestyksestä olisi pitänyt sopia etukäteen tarkemmin. Lisäksi jotkut sovitut normit, kuten klinikan aikana käytetystä kielestä sopiminen, eivät aina toteutuneet: kieleksi esimerkiksi oletettiin suomi eikä siitä keskusteltu, mikäli fyysisesti paikalla oli vain oletettavasti syntyperäisiä suomalaisia.

Toisinaan joku osallistuja oli paikalla ensimmäistä kertaa. Tämä näkyi yleensä niin, ettei esimerkiksi hiljattain aloittanut tohtoriopiskelija ollut paljoa äänessä klinikan aikana, vaan sen sijaan tarkkailijan roolissa – tutustumassa olemassa oleviin normeihin. Joskus ensikertalainen ilmaisi avoimesti olevansa klinikassa ensimmäistä kertaa. Vaikka ensimmäistä kertaa osallistuva olisi ollut aiemmin mukana erilaisissa kirjoitustyöpajoissa tai klinikkatoimintaa vastaavissa tilaisuuksissa, ei hänellä kuitenkaan voinut olla täyttä varmuutta siitä, miten juuri Solkin kirjoitusklinikassa toimitaan. Siksi klinikan normien voidaan sanoa olevan uniikkeja tai ainakin osittain tuntemattomia heille, jotka eivät ole aiemmin osallistuneet. Ensi kertaa osallistuvilla saattaa kuitenkin olla odotuksia klinikkaan liittyen: ehkä he ovat kuulleet klinikasta muilta, jotka ovat aiemmin osallistuneet. Vastaavasti he saattavat olettaa, että klinikassa toimitaan samalla tavalla kuin tilaisuudessa, johon he ovat aikaisemmin osallistuneet muussa yhteydessä.

Solkin kirjoitusklinikoiden *vuorovaikutusjärjestykseen* liittyvät ongelmat olivat siis hyvin moninaisia, mutta myös vahvasti kytköksissä *paikan diskursseihin* (käytössä olleeseen teknologiaan, tilajärjestelyihin, sekä paikkakohtaisiin osallistumisen käytänteisiin) ja osallistujien *toimijahistorioihin* (aiemmat klinikkakokemukset, teknologinen osaaminen, kielitaito, akateeminen kokemus ja rooli tilanteessa). Selventääksemme tätä nostamme seuraavaksi esiin kaksi erityisen mielenkiintoista tuloksista noussutta havaintoa.

8.1 Toiminnan materialisoituminen mikrofonissa

Mikäli tarkastelemme vuorovaikutusjärjestystä nimenomaan Scollonin ja Scollonin (2004) neksusanalyysin näkökulmasta, on

meidän otettava mukaan teknologinen ulottuvuus. Scollonien mukaan teknologia nimittäin mahdollistaa kaiken sosiaalisen toiminnan tai ainakin tukee sitä, joskin teknologia voi viitata myös hyvin yksinkertaisiin välineisiin, kuten paperiin ja kynään. Voidaan ajatella, että perinteinen seminaarityöskentely on tohtoriopiskelijoille huomattavasti tutumpaa, koska erilaiset etäosallistumisen mahdollisuudet ovat yleistyneet vasta viime vuosien aikana (sekä korkeakoulukontekstissa että muussa viestinnässä). Tämän vuoksi klinikan normit ja odotukset eivät koskeneet ainoastaan sitä, miten seminaaritilassa toimitaan, vaan myös sitä, miten osallistumiseen tarvittavia sovelluksia (Yammer, AdobeConnect) käytetään. Toisin sanoen, vaikka osallistuja olisi ollut mukana kymmenissä eri seminaareissa, hän ei välttämättä ollut aiemmin käyttänyt Yammeria tai AdobeConnectia.

Teknologinen ulottuvuus (etäosallistuminen sekä siihen käytetyt ohjelmat) haastoi vuorovaikutusjärjestyksen esimerkiksi siten, että etäosallistujien chat-viestit tai kommentit kaiuttimien kautta rikkoivat totuttua seminaarin vuorovaikutusjärjestystä: Mikäli etäosallistujia ei esimerkiksi ollut, klinikan järjestäjä (senioritutkija) jakoi puheenvuoroja vuorotellen heille, jotka ilmaisivat halunsa kommentoida tai kysyä jotakin tekstin kirjoittajalta esimerkiksi viittaamalla. Jos etäosallistujia sen sijaan oli, puheenvuorossa ollut osallistuja sai käteensä kiertävän mikrofonin, joka toimi näin siis merkkinä puheenvuoron saamisesta. Etäosallistujat puolestaan ilmaisivat halunsa kommentoida chat-viestillä, joka ilmestyi näkyviin sekä ylläpitäjän edessä olevalle tietokoneelle että seminaaritilan seinällä olevalle valkokankaalle. Tästä huolimatta viestiä ei aina välttämättä huomattu välittömästi, ja klinikan järjestäjä kommentoi johonkin väliin, että tietyllä etäosallistujalla on jotakin sanottavaa. Toisinaan etäosallistujan kysymys tai kommentti saattoi näkyä AdobeConnectin chat-ikkunassa melko pitkään, ennen kuin se huomattiin.

Tällä tavoin seminaaritilassa olevat osallistujat olivat vuorovaikutusjärjestyshierarkiassa ikään kuin ensimmäisinä. Toissijaiseksi toimijaksi jääminen saattaa etäosallistujien kohdalla mitätöidä sitä positiivista vaikutusta, mikä Boudin ja Leen (2005), Maherin ym. (2008) sekä Parkerin (2009) tutkimuksissa on todettu kasvokkaisilla kirjoitusryhmillä olevan tutkijayhteisöön kuulumisen kokemisessa. Koska mikrofoni ja sen käyttöä säätelevät klinikan järjestäjät olivat avainasemassa siinä, kenellä puheenvuoro oli, voidaan siis sanoa, että klinikan vuorovaikutusjärjestys ja toiminta materialisoituivat laajalti mikrofonissa. Ilman mikrofonia etäosallistujat eivät kuulleet, mitä seminaaritilan osallistujat puhuivat, ja mikrofonin toimimattomuus johti siihen, etteivät etäosallistujat voineet osallistua toimintaan. Esimerkiksi videokuvan rooli ei ollut verrattavissa tähän, sillä ilman videokuvaa etäosallistuminen vielä onnistui.

Vaikka mikrofonin merkitys oli suuri, on kuitenkin huomioitava, että vuorovaikutusjärjestykseen vaikuttivat myös toimijahistorialliset tekijät, kuten osallistujan asema akateemisessa yhteisössä. Usein esimerkiksi ohjaajat aloittivat kommentoimisen, ja vasta heidän jälkeensä tohtoriopiskelijat uskaltautuivat kommentoimaan – ensin pidemmällä olevat opiskelijat, ja vasta lopuksi aloittelevat opiskelijat, joskaan he eivät aina kommentoineet lainkaan. Tämä puolestaan osoittaa sen, miten erilaisilla yliopiston valtasuhteilla on merkitystä niissäkin tilanteissa, joissa osallistujia kannustetaan avoimeen keskusteluun ja vertaispalautteen antamiseen.

8.2 Millä kielellä tutkimuksesta voi/pitäisi puhua?

Kieleen liittyvien tekijöiden analyysistä nousi esiin ristiriitaisia näkemyksiä liittyen siihen, millä kielellä klinikan osallistujien tulisi pystyä toimimaan. Kun eräs vastaaja toivoi, että kansainväliset tohtoriopiskelijat opiskelisivat suomea ainakin auttavasti, toinen oli sitä mieltä, että vain omalla äidinkielellä pystyy puhumaan omasta tutkimuksestaan tarpeeksi hyvin. Mikäli ajatellaan, että tämä koskisi kaikkia opiskelijoita, vastaan tulevat kuitenkin opiskeluyhteisön kielitaidon rajat: millä kielellä kirjoitusklinikoissa on ylipäätään mahdollista keskustella tutkimuksesta? Tulisiko sen olla suomi, koska kyseessä on suomalainen yliopisto? Vai tulisiko sen olla englanti, koska englanti on se kieli, jota useimmat tohtoriopiskelijat ja ohjaajat osaavat ainakin hieman? Entä, jos tohtoriopiskelijan äidinkieli on jokin muu kuin suomi tai englanti?

Toisaalta voidaan myös kysyä, onko hyväksyttävää, etteivät kaikki tohtoriopiskelijat voi osallistua tiettyyn klinikkaan siksi, etteivät he mielestään osaa tarpeeksi klinikassa käytettyä kieltä. Lisäksi voidaan pohtia, voisivatko kaikki tohtoriopiskelijat ainakin joskus puhua omasta tutkimuksestaan tai antaa palautetta muiden tutkimuksesta omalla äidinkielellään (esimerkiksi suomeksi) tai vastaavasti sillä kielellä, joka itselle ei ole niin vahva (esimerkiksi englanniksi). Monikieliseen viestintään liittyvät osaamistavoitteet on esimerkiksi kirjattu Jyväskylän yliopiston humanistis-yhteiskuntatieteellisen tiedekunnan jatko-opintosuunnitelmaan, jonka mukaan tohtoriopiskelijoiden tulee pystyä ”esittelemään omaa tutkimustaan suullisesti ja kirjallisesti kansainväliselle yleisölle”. Lisäksi suunnitelmaan on kirjattu osaamistavoite tohtorikoulutettaville, joiden äidinkieli on jokin muu kuin suomi: ”kielitaitonsa lähtötilanteesta riippuen joko selviytyy arkipäiväisistä kielenkäyttötilanteista suomeksi tai pystyy puhumaan ja kirjoittamaan myös omasta tutkimuksestaan suomeksi” (Jyväskylän yliopisto, 2017).

On selvää, että monikielisessä ympäristössä toimiminen luo haasteita erilaisten tapahtumien ja muiden vuorovaikutustilanteiden kielivalintaan. Etenkin tutkitussa kontekstissa, jossa tohtoriopiskelijat tulevat useasta eri maasta ja puhuvat äidinkielenään monia eri kieliä, kieleen liittyvät kysymykset saattavat nousta esiin normaalia voimakkaammin. Tämän vuoksi käytettävästä kielestä neuvottelu ennen jokaista klinikkakertaa olisikin ensisijaisen tärkeää, ja käytetystä kielestä tulisi pystyä puhumaan avoimesti.

9 LOPUKSI: MUUTOS JA KRIITTISYYS

Tässä artikkelissa käsittelimme neksusanalyyttisen viitekehyksen avulla sitä, millaiset tekijät mahdollistavat ja rajaavat tohtoriopiskelijoiden osallistumista monikanavaiseen tohtoriseminaariin. Tunnistimme kolme laajempaa kategoriaa näihin tekijöihin liittyen: teknologiaan, toimijoihin ja kieleen liittyvät tekijät. Osa näistä on linjassa aiemman tutkimuskirjallisuuden kanssa, jonka mukaan videokonferenssin onnistuminen vaatii riittävää valmistautumista, aikaa sekä rahallisia resursseja (Andrews & Klease, 1998; Dogget, 2008). Lisäksi tutkimme, miten näihin tekijöihin liittyvät ongelmatilanteet vaikuttivat tutkittavaan kontekstiin – Solkin kirjoitusklinikkaan. Vaikutukset tutkittuun toimintaan olivat kolmessa tunnistetussa kategoriassa hyvin samankaltaiset. Ongelmatilanteet veivät aikaa pois käsiteltävältä asialta (teknologia), vaikeuttivat osallistumista (teknologia, kieli), estivät sen kokonaan (teknologia, toimijat, kieli), vaikuttivat osallistumisen mielekkyyteen (teknologia, toimijat, kieli) tai koettuun hyödyllisyyteen (toimijat) ja aiheuttivat muita negatiivisia tuntemuksia osallistujissa,

kuten esimerkiksi turhautumista (teknologia, toimijat) tai kriittisyyttä muiden käyttämää kieltä kohtaan (kieli).

Kuten kaikkeen soveltavaan tutkimukseen (ja joskus myös perustutkimukseen, ks. Stokes, 1997), myös neksusanalyysin kauaskantoisempiin tavoitteisiin kuuluu tärkeänä osana *muutos* (Scollon & Scollon, 2004). Muutosta voidaan saada aikaan usealla eri tavalla. Näistä ensimmäinen on tehdä systemaattista tutkimusta liittyen siihen laajempaan toiminnan neksukseen, josta tutkija on kiinnostunut. Näin tutkittavasta toiminnasta voidaan saada yhä enemmän tietoa ja sitä voidaan ymmärtää paremmin. Esimerkiksi tämä tutkimus on osa laajempaa, tohtoriopintoja koskevaa neksusanalyysiä, johon liittyy kolme muuta osatutkimusta.

Neksusanalyysiin liittyvä muutos voi myös sisältää pienempiä konkreettisia toimia, jotka vähitellen johtavat mahdollisesti laajempaan muutokseen. Tämän tutkimuksen kohdalla *muutos* on sisältänyt useita, pienempiä askeleita. Ensimmäinen näistä oli verkkokyselyssä esille tulleiden kehitysehdotusten käsittely. Kyselyssä vastaajat saivat ehdottaa, millaisia teemoja he toivoisivat klinikassa jatkossa käsiteltävän. Aarnikoivu kokosi nämä yhtenäiseksi listaksi ja toimitti sen sähköpostitse kirjoitusklinikan silloisille järjestäjille. Toinen toimi oli esitellä tämän tutkimuksen alustavia tuloksia Solkin tohtoriopiskelijoille järjestetyssä jatko-opintoseminaarissa marraskuussa 2018. Seminaariin osallistui sekä tohtoriopiskelijoita että ohjaajia, ja esitelmä herätti aktiivista keskustelua. Vuonna 2018 Solki myös hankki kädessä pidettävien mikrofonien tilalle pöytämikrofonin, jonka käyttöönoton jälkeen suurin osa ääniyhteyteen liittyvistä ongelmista poistui. Toistaiseksi viimeinen konkreettinen muutos koskee klinikkatoiminnan levittämistä laajemmalle. Ongelmatilanteista huolimatta sekä verkkokyselyn vastauksista että kirjoitusklinikoiden aikana tehdyistä havainnoista nousi esille, kuinka hyödyllinen kirjoittamisopetuksen muoto kirjoitusklinikka sen osallistujille on. Tästä inspiroituneena Aarnikoivu ehdotti Solkin kirjoitusklinikoiden kaltaista tapahtumaa järjestettäväksi nuorille korkeakoulututkijoille Saksan Kasselissa elokuussa 2019[3]. Klinikkaan osallistui 23 nuorta korkeakoulututkijaa ympäri maailmaa, ja tarkoituksena on järjestää samankaltainen tapahtuma Kroatian Rijekassa vuonna 2020.

Viimeinen, ehkäpä tärkein muutoskeino on muodostaa ja kysyä yhä parempia kysymyksiä kuin aiemmin sen sijaan, että etsittäisiin vastauksia tiettyihin, ennalta esitettyihin kysymyksiin (Scollon & Scollon, 2004). Vaikka tässä artikkelissa etsimmekin vastauksia kahteen tarkasti määriteltyyn tutkimuskysymykseen, voi tämän tutkimuksen perusteella myös esittää tärkeitä jatkokysymyksiä ohjaamaan tulevaa tutkimusta sekä laitos-, tiedekunta- ja yliopistotason päätöksentekoa. Tämän tutkimuksen perusteella esitämmekin seuraavat kysymykset: miten osallistujien toimijahistoriat (aiemmat klinikkakokemukset, teknologinen osaaminen, kielitaito) olisi mahdollista huomioida paremmin tohtoriseminaaritoimintaa suunniteltaessa? Ketkä kirjoitusklinikoihin ylipäätään osallistuvat ja miksi juuri he? Ketkä osallistumisesta päättävät ja miksi juuri he? Ketkä klinikan aikana käytetystä kielestä päättävät, ja miksi juuri he?

Vaikka omaan instituutioon liittyvien kriittisten kysymysten kysyminen ei usein ole helppoa, se on kuitenkin välttämätöntä positiivisen muutoksen aikaansaamiseksi (Mahon, Heikkinen & Huttunen, 2018). Kriittisyyden vastapainona lienee kuitenkin aiheellista myös huomioida tietyn toiminnan onnistuneet puolet: etäosallistumismahdollisuuden tarjoamalla Solkin kirjoitusklinik-

[3] Tapahtuman järjesti uransa alkuvaiheessa olevien nuorten korkeakoulututkijoiden verkosto ECHER (early-career higher education researchers). ECHE-Rin verkkosivu: http://www.echer.org

katoiminta myös pyrki rikkomaan niitä ajan ja paikan rajoitteita, joita kirjoituksen opetukseen on tutkittu sisältyvän (ks. Lassig ym., 2013; Maher ym., 2013; Svinhufvud, 2014). Tällainen aikaa ja paikkaa haastava toiminta ja sen analyysi voi auttaa kyseenalaistamaan myös muita tohtorikoulutuksen itsestään selvinä pidettyjä elementtejä. Lisäksi oman toiminnan analyysi on hedelmällistä itsereflektiota, mutta antaa toivottavasti reflektion lähtökohtia myös tätä artikkelia lukeville.

LÄHTEET

Allen, M., Bourhis, J., Burrell, N. & Mabry, E. (2002). Comparing student satisfaction with distance education to traditional classrooms in higher education: a meta-analysis. *American Journal of Distance Education*, *16*, 83–97.

Andrews, T. & Klease, G. (1998). Challenges of multisite video conferencing: The development of an alternative teaching/learning model. *Australasian Journal of Educational Technology, 14*, 88–97.

Boud, D. & Lee, A. (2005). Peer learning as pedagogic discourse for research education. *Studies in Higher Education, 30*, 501–15.

Çakıroğlu, Ü., Kokoç, M., Kol, E. & Turan, E. (2016). Exploring teaching programming online through web conferencing system: The lens of activity theory. *Journal of Educational Technology & Society*, *19*, 126–139.

Candarli, D. & Yuksel, H. G. (2012). Students' perceptions of video-conferencing in the classrooms in higher education. *Procedia - Social and Behavioral Sciences, 47*, 357–361.

Candela, L., Carver, L., Diaz, A., Edmunds, J., Talusan, R. & Tarrant, T. A. (2009). An online doctoral education course using problem-based learning. *The Journal of Nursing Education, 48*, 116–119.

Cotterall, S. (2011). Doctoral students writing: where's the pedagogy? *Teaching in Higher Education, 16*, 413–425.

Delyser, D. (2003). Teaching graduate students to write: a seminar for thesis and dissertation writers. *Journal of Geography in Higher Education, 27*, 169–181.

Doggett, A. M. (2007). The videoconferencing classroom: What do students think? *Journal of Industrial Teacher Education, 44*, 29–41.

Ferguson, T. (2009). The "write" skills and more: A thesis writing group for doctoral students. *Journal of Geography in Higher Education, 33*, 285–297.

Gillies, D. (2008). Student perspectives on videoconferencing in teacher education at a distance. *Distance Education*, *29,* 107–118.

Goffman, E. (1983). The interaction order. *American Sociological Review*, *48*, 1–17.

Henriksen, D., Mishra, P., Greenhow, C., Cain, W., Roseth, C. (2014). A tale of two courses: Innovation in the hybrid/online doctoral program at Michigan State University. *TechTrends, 58*, 45–53.

Hsieh, H.-F. & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*, 1277–88.

Johnson, E. (2014). Toward the building of a cross-disciplinary doctoral research and writing culture. *Journal of University Teaching & Learning Practice*, *11*.

Jones, R. & Norris, S. (2005). Discourse as action/discourse in action. Teoksessa S. Norris & R. Jones (toim.), *Discourse in action: Introducing mediated discourse analysis*, (s. 3–14). London: Routledge.

Jyväskylän yliopisto. 2017. Humanistis-yhteiskuntatieteellisen tiedekunnan jatko-opetussuunnitelma 1.4.2017-31.7.2020. Haettu 17.6.2019 osoitteesta https://www.jyu.fi/hytk/fi/tutkimus/tohtorikoulutus/tutkintovaatimukset/humanistis-yhteiskuntatieteellisen-tiedekunnan-jatko-opetussuunnitelma

Kamler, B. & Thomson, P. (2006). *Doctoral writing: pedagogies for work with literatures.* Esitelmä: AERA annual meeting, doctoral writing symposium, huhtikuu 2006, San Francisco, Yhdysvallat.

Kamler, B. (2008). Rethinking doctoral publication practices: writing from and beyond the thesis. *Studies in Higher Education, 33*, 283–294.

Karjalainen, R. 2015. *Saamen kielet pääomana monikielisellä Skábmagovat-elokuvafestivaalilla*. Väitöskirja. Jyväskylä Studies in Humanities 254. Jyväskylä: Jyväskylän yliopisto.

Kaufmann, R. & Frisby, B. N. (2013). Let's connect: using Adobe Connect to foster group collaboration in the online classroom. *Communication Teacher*, *27*, 230–234.

Kress, G. (2010). Multimodal discourse analysis. Teoksessa J. P. Gee and M. Handford (toim.), *The Routledge Handbook of Discourse Analysis*, (s. 35–50). London: Routledge.

Lassig, C. J., Dillon, L. H. & Diezmann, C. M. (2013). Student or scholar? Transforming identities through a research writing group. *Studies in Continuing Education, 35*, 299–314.

Lee, A. & Boud, D. (2003). Writing groups, change and academic identity: Research development as local practice. *Studies in Higher Education, 28*, 187–200.

Lehtinen, E. & Nummenmaa, M. (2012). *Etä-opetuksen lumo: Kansainvälinen kirjallisuuskatsaus.* Turku: Turun yliopisto.

Maher, D., Seaton, L., McMullen, C., Fitzgerald, T., Otsuji, E. & Lee, A. (2008). Becoming and being writers: The experiences of doctoral students in writing groups. *Studies in Continuing Education, 30,* 263–275.

Maher, M., Fallucca, A. & Halasz, H. M. (2013). Write on! Through to the Ph.D.: Using writing groups to facilitate doctoral degree progress. *Studies in Continuing Education*, *35,* 193–208.

Mahon, K., Heikkinen, H. L. & Huttunen, R. (2018). Critical educational praxis in university ecosystems: enablers and constraints. *Pedagogy, Culture and Society, 27*, 460–480.

Martin, S. (2005). Seeing is believing: The role of videoconferencing in distance learning. *British Journal of Educational Technology, 36*, 397–405.

Mayring, P. (2000). Qualitative Content Analysis [28 paragraphs]. Forum Qualitative

Sozialforschung [Forum: Qualitative Social Research] 1(2), Art. 20. Haettu 29.3.2018 osoitteesta http://nbnresolving.de/urn:nbn:de:0114-fqs0002204

Messina Dahlberg, G. & Bagga-Gupta, S. (2014). Understanding glocal learning spaces. An empirical study of languaging and transmigrant positions in the virtual classroom. *Learning, Media and Technology, 39*, 468–487.

Morss, K. & Murray, R. (2001). Researching academic writing within a structured programme: insights and outcomes. *Studies in Higher Education, 26*, 35–52.

Murray, R. (2001). Integrating teaching and research through writing development for students and staff. *Active Learning in Higher Education, 2*, 31–45.

Norris, S. & Jones, R. (toim.) (2005). *Discourse in action: Introducing mediated discourse analysis.* London: Routledge.

Parker, R. (2009). A learning community approach to doctoral education in the social sciences. *Teaching in Higher Education, 14*, 43–54.

Penuel, W.R. & Wertsch, J.V. (1995). Dynamics of negation in the identity politics of cultural other and cultural self. *Culture and Psychology*, *1*, 343–359.

Piattoeva, N. (2016). Kirjoittaminen taitona, velvollisuutena ja oikeutena. *Tieteessä tapahtuu, 3*, 61.

Pietikäinen, S. (2012). Kieli-ideologiat arjessa. Neksusanalyysi monikielisen inarinsaamenpuhujan kielielämäkerrasta. *Virittäjä*, *3*, 410–442.

Rautiainen-Keskustalo, T., Raudaskoski, S., Colliander, M., Pimiä, A., Rantanen, A. & Teikari, A. (2014). Moniaineksinen etäkonsertti: Neksusanalyysi musiikillisen toiminnan tutkimusmetodina. *Musiikki*, *44*, 6–28.

Roseth, C., Akcaoglu, M. & Zellner, A. (2013). Blending synchronous face-to-face and computer-supported cooperative learning in a hybrid doctoral seminar. *Tech Trends, 57*, 54–59.

Scollon, R. (2001). *Mediated discourse: The nexus of practice*. London: Routledge.

Scollon, R. & Scollon, S. W. (2004). *Nexus Analysis: Discourse and the emerging internet.* London, UK: Routledge.

Scollon, R. & Scollon, S. W. (2007). Nexus analysis: Refocusing ethnography on action. *Journal of Sociolinguistics*, *11*, 608–625.

Stokes, D. E. (1997). *Pasteur's quadrant: Basic science and technological innovation.* Brookings Institution Press, Washington, D.C.

Strömmer, M. (2017). *Mahdollisuuksien rajoissa. Neksusanalyysi suomen kielen oppimisesta siivoustyössä.* Väitöskirja. Jyväskylä Studies in Humanities 336. Jyväskylä: Jyväskylän yliopisto.

Svinhufvud, K. (2014). Participation in the master's thesis seminar. Exploring the lack of discussion. *Learning Culture and Social Interaction, 5*, 66–83.

Virtanen, A. (2017). *Toimijuutta toisella kielellä. Kansainvälisten sairaanhoitajaopiskelijoiden ammatillinen suomen kielen taito ja sen kehittyminen työharjoitteluissa.* Väitöskirja. Jyväskylä Studies in Humanities 311. Jyväskylä: Jyväskylän yliopisto.

Vygotsky, L.S. (1978). *Mind in Society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Vygotsky, L.S. (1987*). The Collected Works of L.S. Vygotsky. Volume 1. Problems of general psychology. Including the Volume Thinking and Speech*, toimittanut ja kääntänyt N. Minick. New York: Plenum.

Wang, C. X., Jaeger, D., Liu, J., Guo, X. & Xie, N. (2013). Using synchronous technology to enrich student learning. *TechTrends, 57*, 20–25.

Wertsch, J.V. (1991). *Voices of the Mind: A sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.

Wertsch, J.V. (1995). Mediated action and the study of communication: The lessons of L. S. Vygotsky and M. M. Bakhtin. *The Communication Review, 1*, 133–154.

Wertsch, J.V. (1998). *Mind as Action*. New York: Oxford University Press.

Zhao, Y., Lei, J., Yan, B., Lai, C. & Tan, H. S. (2005). What makes the difference? A practical analysis of research on the effectiveness of distance education. *Teachers College Records, 107*, 1836–84.

DISRUPTIONS OF HYBRID DOCTORAL SEMINARS: A NEXUS ANALYSIS

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In this study we explored what kind of disruptions there were involved in hybrid doctoral seminars. Furthermore, we examined what kind of consequences such disruptions had. As our theoretical-methodological framework we used nexus analysis (Scollon and Scollon 2004). The data comprised ethnographic field notes which were generated during "writing clinics" organised for doctoral students, the AdobeConnect chat discussions that took place during the clinics, Yammer discussions concerning the clinics, as well as the results of an online survey, which was sent to doctoral students and supervisors. Based on our analysis, we recognised three categories, which the disruptions were related to: technology, actors, and language. The disruptions took time away from the actual content, made participation in the writing clinic meetings more difficult or impossible, had a negative effect on the satisfaction towards participation, made the clinics feel less useful for participants, and were a source of other negative feelings among participants. The study and its results shift the attention towards what happens when a desired or expected mediated social action is disrupted for one reason or another, and thus helps to plan how hybrid seminars could be developed in the context of doctoral education, specifically, and in university teaching more generally.

Keywords: doctoral studies, hybrid seminar, interaction order, nexus analysis

II

STUDYING INTERNATIONAL DOCTORAL RESEARCHERS: NEXUS ANALYSIS AS A MODE OF INQUIRY

by

Melina Aarnikoivu

(In review)

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III

THE SPATIOTEMPORAL DIMENSION OF DOCTORAL EDUCATION: A WAY FORWARD

by

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The spatiotemporal dimension of doctoral education: a way forward

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ABSTRACT
For an individual doctoral student, doctoral education happens in multiple spaces across a considerable amount of time. However, the existing literature and conceptualisations of doctoral education do not adequately address the spatiotemporal dimension related to it. By using the concept of *scales*, this article examines how the social action of doing doctoral studies is affected by space and time. As a mode of inquiry, I use nexus analysis, which allows the analyst to spotlight issues that routinely go unnoticed by scholars, policy-makers but also doctoral students themselves. Based on the analysis, I argue that to theorise doctoral education further, its spatiotemporal dimension has to be examined more closely and considered more seriously than is currently being done by higher education scholars.

KEYWORDS
Doctoral education; nexus analysis; scales; social action; space; time

Introduction

There are as many ways to do doctoral studies as there are doctoral students. The highly varied demography of today's doctoral students has made doctoral education along with its expanding modes an extremely complex phenomenon, to which no one-size-fits-all approach can be applied. Today, it is possible to complete a doctorate either full-time or part-time (see Gardner and Gopaul 2012). It can be done within one university, including or not including mobility, as distance-learning (see Koole and Stack 2016; Nasiri and Mafakheri 2015), or as a combination of all these. Despite myriad options and increasing flexibility, doctoral students' future prospects are also increasingly insecure (see Hakala 2009; Waaijer et al. 2017), making doctorate a less appealing investment in the future than it might have once been. In addition to the versatility of the main actors of this academic drama, doctoral studies involve a multitude of different actions, settings, tools, artefacts, rules, roles, motives, and relationships, all adding their own share of moving pieces to the doctoral puzzle (Cumming 2010; Mantai 2015).

The multifaceted nature of doctoral studies has led to different approaches being introduced in the discussion on doctoral education. Current research is mainly focused on supervision (see Martinsuo and Turkulainen 2011; Parker-Jenkins 2018) and other forms of support mentoring (see Brill et al. 2014; Mantai and Dowling 2015) all the way to doctoral students' mental health (see Baik, Larcombe, and Brooker 2019; Levecque et al. 2017; Sverdlik et al. 2018) and even to the very concept of *doctorateness* (Trafford and Leshem 2009; Wellington 2013; Poole 2015). While all these studies have clear merits and benefits, these often overly-narrow single facets run the risk of obscuring the view on the mosaic reality in which the twenty-first-century doctoral students work and live.

To address this glaring gap, this study re-theorises doctoral education in terms of time and space. As any mediated social action (Scollon and Scollon 2004), doing doctoral studies always takes place in

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specific spaces within and across specific timescales. These, in turn, have consequences and linkages to other spaces and timescales in society. To give the spatiotemporal dimension of doctoral education the visibility it deserves, I introduce a body of literature from sociolinguistics that can assist in theorising doctoral education further: the concept of *scales* (Blommaert 2007; Blommaert, Westinen, and Leppänen 2015) and the methodological approach of *nexus analysis* (Scollon and Scollon 2004; 2007). The first allows imagining social phenomena as something *layered*, rather than *linear*, allowing to add those missing dimensions of space and time into the discussion. The second provides a useful set of tools to study mediated social action by examining a versatile set of data, collected during a longer period of time. Furthermore, nexus analysis allows an analysis capable of addressing the facilitation of *change;* the ultimate goal of nexus analysis. This is important to note, as conducting nexus analysis rarely involves specific research questions but instead, it is the research process and the resulting change and new questions that are 'the answer' (Scollon and Scollon 2004).

The data for this study was collected by doing insider ethnography at CERN (the European Organisation for Nuclear Research), located on the border of Switzerland and France, for 18 months. As the participants were working with full-time funding and the state-of-the-art equipment, these settings provided an exceptional opportunity to focus on 'what is really going on' when the basic pieces of doctoral work – the resources – were already in place.

'Doctoral enterprise', other holistic models, and what is missing

Ten years ago, Cumming (2010) argued that, to meet the demands of the constantly evolving doctoral education, a more holistic model is needed. In the same work, he praiseworthily listed earlier models by Holdaway (1996), Thorlakson (2005), and McAlpine and Norton (2006). However, he criticised the assumption that doctoral education is something that only involves the student and their supervisor (see also Baker and Lattuca 2010; Baker Sweitzer 2009; Hopwood 2010). According to Cumming (2010), the previous approaches also treat doctoral education as something only happening within university walls, in a vacuum unaffected by external forces. To address these shortcomings, Cumming (2010) created a new holistic model of doctoral education by using Schatzki's (2002) schema of piling-up activities, and Kemmis's (2005) conceptualisation of practice. In an effort to illuminate what so many others had missed, Cumming also asserted that doctoral students are in some ways independent, as are their supervisors but both are also part of specific socio-historical contexts.

Cumming's model of 'doctoral enterprise' (2010, 31) focuses on *doctoral practices* (curricular, pedagogical, research, and work); the central activities that doctoral students perform during their studies. In turn, *doctoral arrangements* surrounding these practices include components provided by three types of actors: participants, academy, and community. These arrangements illustrate how the relationships, networks, and resources of these three groups are linked with doctoral practices. Cumming argues that this model offers clear advantages over earlier attempts to provide new insights into doctoral studies, by for example analytically situating doctoral education within a complex ecosystem of interrelated components rather than as an oversimplified, linear system of inputs and outputs. It also treats doctoral education as a shared responsibility of the student and supervisor but also as a responsibility of other stakeholders within and outside academia, such as the state.

Despite of these undeniably important analytical insights, Cumming's model, as many other higher education studies, fails to address the spatiotemporal dimension of twenty-first-century academia (see also Shahjahan 2019). This continues the tradition of treating and examining doctoral education as something that happens over a few years' time within the walls of a single university. While Cumming (2010) implicitly touches on some spatiotemporal issues, such as 'historical developments' (31) and 'cultural understandings' (31) reflected within doctoral practices, they are not explicitly present in his model. Finally, although Cumming states that the nature of both doctoral practices and arrangement is 'multidimensional and interrelated' (34), the metaphors he uses are solely two-dimensional: doctoral arrangements are referred to as 'a rich *tapestry* of interwoven elements' (33)

and doctoral work can be described as a 'doctoral *interface*' (26). In order to fundamentally advance thinking when it comes to the doctoral process, more dimensions are needed. This, I suggest, can be accomplished by Blommaert's (2007, 2019) conceptualisation of *scales*.

Scales as a vertical metaphor

Scales, as conceptualised by Blommaert (2007, 2019), is a vertical metaphor which allows the analyst to move beyond the limitations of two-dimensional thinking. The main purpose of this concept is to demonstrate that social phenomena are layered: of different order, hierarchically ranked, stratified, or power-invested. Blommaert (2007) argued that this *layered* nature of different phenomena is tied to differences between *scales*. To accompany and complement the existing *horizontal* and *linear* metaphors of 'distribution', 'spread', 'flow', and 'trajectory', scales can be used as an analytical metaphor which illuminates the nuances that are needed in studies examining globalisation (Blommaert 2007). I argue that multidimensional thinking is also needed to move beyond the limitations of most literature focused on doctoral education.

Blommaert (2007) exemplifies that in our everyday life, we constantly have to observe the norms that are attached to a multitude of authorities which can either be local/momentary or translocal/lasting; the family, a group of peers, religion, the media, transnational networks, the state, the labour market, role models, and so forth. Most of these can also be found in relation to doctoral education: these authorities can form a support network for the student (family and friends), they can limit the duration of studies (university or state), or even affect the initial choice of study (labour market demands). Furthermore, as Blommaert (2007) asserts, scales can be used to illustrate a *layered continuum*, where social events and processes move and develop: They have local (micro) and global (macro) dimensions as extremes, with several in-between states (e.g. the state). This is where the strength of scales lies: When studying social events or action, the concept refers to a layered and stratified model of society or a system as a frame for the interpretation of different types of current phenomena in communicative action. In this way, power and inequality become incorporated into our ways of imagining such phenomena: Rather than seeing them as 'exceptional aberrations in social life' (Blommaert 2007, 7), they can be seen as integral features of every social event (Blommaert, Collins, and Slembrouck 2005; Blommaert 2007).

What does Blommaert mean by this? According to sociolinguistics, the reason context-dependent communicative acts are understood because they are coherent with previous traditions of making sense and connected to patterns of understanding. This type of duality is generally referred to as 'micro' and 'macro'. To explore the complexity between these extremes, and the transition from one level to another, different kind of theoretical tools have been created, such as Goffman's (1974) 'frames' and Bourdieu's (1990) 'habitus'. As Blommaert (2007) argued, these concepts examine the 'jump' from one scale to another (Blommaert 2007; Blommaert, Westinen, and Leppänen 2015; Geertz 2004). Examples of such jumps are from momentary to timeless, from local/situated to translocal/widespread, from personal/individual to impersonal/collective, and from subjective to objective (Blommaert 2007).

In this article, I will not focus on scale-jumps in individual situations and communicative acts, however, but instead focus on scales of different actions and actors. In other words, I do not use scales merely as a 'sociolinguistic concept'[1] but also as a general vertical metaphor that facilitates a multidimensional analysis of doctoral studies, spotlighting issues that are ignored by the literature reviewed for this study. To do this, I suggest using nexus analysis as a mode of inquiry.

Focus on mediated social action: nexus analysis as a qualitative mode of inquiry

In relation to scales, Blommaert, Westinen, and Leppänen (2015) concluded that when using several data sets and methods of analysis, it is possible to widen the range of the studied issue. To study a topic in such a way, nexus analysis (Scollon and Scollon 2004) offers a compelling approach from the

field of sociolinguistics, and within ethnographic and discourse-analytical approaches in general (Hult 2015). Instead of language use only, it focuses on social action and those relationships that exist between different semiotic (meaning-making) resources and social issues (Hult 2015). For this reason, it is also an attractive mode of inquiry to advance the ideas about doctoral education.

The core concept of nexus analysis is *social action*. Scollon and Scollon (2004, 11) define it as 'any action taken by an individual with reference to a social network'. When a specific social action happens repeatedly, it can be called a *social practice*. Social actions and practices are surrounded by three intertwined elements:

(1) **historical bodies** (how a specific role is played by different people, depending on what their personal experience is; includes one's own goals and purposes as well as one's physical attributes),
(2) **discourses in place** (all those discourses circulating a material place (and moment in time) where specific social action happens, relevant or irrelevant), and
(3) **interaction orders** (all those possible social arrangements that are used to form relationships during social interaction; see also Goffman 1971, 1983).

Based on decades of previous work in higher education settings in Alaska, US, the Scollons specifically designed nexus analysis to explore different types of social phenomena as complex systems. The underlying idea is similar with the concept of scales: nexus analysis encourages the researcher to examine linkages between smaller and larger actions (or lower and higher scales). This is why the researcher should not 'get stuck' on single observable moments, events, or participants (Scollon and Scollon 2004; Hult 2015; Pietikäinen et al. 2011). To guide a nexus analyst in their practical work, Scollon and Scollon (2004) created a three-stage process: *engaging*, *navigating*, and *changing* the nexus of practice. To test the usefulness of nexus analysis for studying doctoral education, I went to CERN, one of the world's largest and best-known research centres, and applied the Scollons' approach.

Data and methodology

Engaging: doing insider ethnography at CERN

The data for this study was gathered by doing *insider ethnography* (Aarnikoivu 2016; Alvesson 2003) at CERN (the European Organisation for Nuclear Research) between July 2015 and December 2016. Founded in 1954 for the purposes of the European Council for Nuclear Research, the CERN laboratory is located on the border of France and Switzerland, next to Geneva. CERN's main focus is particle physics; to study the fundamental constituents of matter, as well as the forces that act between them. In 2019, CERN has around 20 different experiments working in its facilities. It directly employs about 2500 people and has approximately 12,000 scientists of over 100 nationalities from over 70 countries affiliated with it. It should be noted that CERN does not grant any degrees: its doctoral students are so-called Associated Members of Personnel (i.e. not employed) and the validity of their contract of association is tied to being registered as a student at their home university during the entirety of the CERN contract. The funding usually comes from either the home institute (salary/grant) or from national scholarship programmes. In 2016, 318 people were selected to study at CERN's Technical or Doctoral Student Programme (CERN 2019).

The basis for this study came to be during spring 2015 when I moved to the greater Geneva area. By joining the CERN board games club (which is also open for people outside CERN), I acquired an access card to CERN premises. By using snowball sampling, I located and recruited eight doctoral students to participate in this study. At the time of the data collection, the participants were 26 to 32-year-old doctoral students of physics or engineering, who were at different stages of their studies (two at the beginning, three in the middle, three in the final stage). They came from eight different EU/EEA countries, where they had also completed their MSc degrees, except for one

student who had moved to another country after completing their MSc. To ensure the anonymity of the participants, no further individual details on them will be provided. Each of the participants signed an informed consent participation form at the beginning of the study. In addition to this, I obtained a permission from a legal adviser from CERN's HR department, agreeing that CERN would only be used as a background information for the participants.

I began the data collection by conducting a semi-structured interview with each participant. In the interview, I asked about the participants' family and study background, why they decided to start university studies and eventually do a doctorate, how they started working at CERN, what they would like to do after completing the doctorate, about their daily work and work practices, their plans for the future, and their perceptions of their current life situation or circumstances outside work. This – arriving at CERN, finding the relevant social actors, and conducting the first interviews – forms the first stage of nexus analysis; *engaging* the nexus of practice.

Navigating: zooming in and out to find out what is relevant

After a few months, I gradually moved into the second stage of nexus analysis, *navigating*, where the main task is to analyse the three different aspects of social action listed previously; historical bodies, discourses in place, and interaction order. Furthermore, I looked for links and transformations between them (Scollon and Scollon 2004) by observing the participants, talking to them during and outside their working hours, focusing on the topics that had emerged in the interviews. Over the course of fieldwork, some new themes and topics emerged, as the situation of the participants changed. All the notes were added to my fieldwork journal, which also included reflections regarding my own work. I also recorded two group meetings of one of the participants and took 360 photos in different parts of CERN. The data collected for this study is summarised in Table 1.

The analysis, which begins already at the navigating stage, was conducted and organised by creating two sets of nexus analytical questions. As a basis for both sets, I used the practical field guide for nexus analysis, provided as an appendix in the Scollon and Scollon 2004 book *Nexus Analysis. Discourse and the Emerging Internet.* The sets were as follows:

(1) The set of nexus analytical questions used at the data collection stage (Appendix 1)
(2) The set of nexus analytical questions used at the data analysis stage (Appendix 2)

The reason for two sets of questions is the evolving design of doing nexus analysis: instead of having a ready-made set of detailed research questions at the beginning of a research project, the nexus analyst is studying a social phenomenon or practice from a wider perspective (Set 1). This is why the data collection and the analysis have to be directed towards where the researcher finds

Table 1. Data summary.

Main data	Seven audio-recorded interviews (length varying between 25 minutes and 1 hour 20 minutes, 359 in total) and 1 written interview Two audio recordings from a group meeting of 1 participant (29 and 69 minutes) Fieldwork journal consisting of 74 entries between 19 July 2015 and 12 January 2017 and including: (1) notes on follow-up interviews, (2) notes on informal discussions with the participants, (3) field notes written during and outside participants' working hours on their life and work and life at CERN in general, and (4) reflections on my own work.
Secondary data	360 Photos. To ensure the anonymity of the participants, these photos are not used for analysis purposes. I took them during my field work, in case I would not be able to go back to CERN after finishing the data collection. However, this turned out not to be the case, as I have been able to return to CERN after the data collection as well

any kind of reoccurring conflicts or contradictions between what is *claimed* is being happening or being done and what is *actually* happening or being done (Scollon and Scollon 2004, 158). This I did throughout the navigation stage by what the Scollon and Scollon (2004) call *zooming in* and *zooming out*. In this way, I did not 'get stuck' on specific moments, events, or participants but instead could shift my focus in case I found that what I had been observing so far did not seem to be relevant after all. For example, at the beginning of my data collection, I assumed that all doctoral students have financial issues but, as it quickly turned out, these participants did not have any, which made me then zoom out, to find what my initial assumptions might have obscured.

While navigating the nexus of practice, it was striking how this group of extremely talented, bright, young researchers had a great deal to offer for their respective research communities and future knowledge production. Simultaneously, however, I observed how they were constantly confronting issues with various power-invested authorities, such as university or state. Thus, to focus specifically on the spatiotemporal dimension of doctoral education, I chose a more detailed set of analytical questions (Set 2) involving questions of space and time. The processes of continuously zooming in and out finally brought me to focus on the eye-catching tension involved in how different spaces, timescales, and the authorities related to them *enable* but also *regulate*, and – in some cases – *restrict* social action. The results of this many-step analysis will be presented next.

Results

Based on the analysis I first identified the relevant spaces and timescales that were circulating the studied nexus of practice. These are listed below in Table 2.

By examining Table 2, it can be noticed that spaces (where socially mediated action entailed in doctoral studies happens) tremendously vary in terms of their horizontal size. However, these spaces also include *vertical* dimensions linked to hierarchy and power (Blommaert 2007). The same applies to timescales: they can be placed linearly on a timeline (horizontally) or they can be viewed as shorter and longer timescales (vertically), each of which are related to an authority with power, such as the university or the state, which set the framework for the duration of studies, for example.

To illustrate this, compare the use of the country name as well as the time period in these two following cases during the same interview:

(1) I still have **two more years** but my plan actually is not to back to [the capital], I would like to go back to **[country]**, but the western part.
(2) No, I did my master's degree **in seven years** because in **[country]** we don't have **restrictions** on this.

In the first example, the participant is talking about their country of origin as a horizontal space; an area where they would like to move back to after finishing their degree. However, in the second one the country name bears an additional meaning. It refers to power; the laws, regulations, or cultural norms of that country. Additionally, in both sentences the number of years refers to a timescale determined by 'the country'. In the first example the time is limited, whereas in the latter it is not.

Table 2. Identified spaces and timescales of CERN doctoral students.

Spaces	Timescales
Experiment halls/offices, meeting rooms, CERN, conference venues, primary/secondary school, university, different cities, different countries, Europe, wider than Europe, and outside work	Thesis writing, the annual CERN schedule, completing primary/secondary school, completing a university degree, having an employment contract/a grant, and future/life after PhD

As the above excerpt also illustrates, doctoral students have to acknowledge and follow several different norms attached to these spaces to carry out their studies and daily work duties. These norms might either be local (lower scale), translocal (higher scale), or something in between. In terms of horizontal size, for example, the smallest spaces that I observed were those of daily work (on related activities, see Jazvac-Martek, Chen, and McAlpine 2011), thus also making them the most common spaces of doctoral studies: offices, experiment halls, meeting rooms, and cafeterias, all playing a central role in the participants' everyday lives. Here, one of the participants describes their typical work day:

> On a normal day I go to work about at nine, spend the next half an hour at coffee, I don't drink coffee but coffee is an event which happens at work so … So that's a good half hour and lunch at 12 *laughs*, then there's another coffee at about two o'clock, between that it's just working, either in the experiment zone, just working on hardware or programming or designing things and software

Although the participant was describing their day with a humorous tone, it illustrates how specific, scheduled events at CERN (such as the lunch) provide a framework for daily activities, such as programming and designing software. These activities take place in facilities which *enable* doctoral students to carry out their research effectively, and to work in highly international research groups and settings for several years. This ultimately leads (or successfully led) to them obtaining a doctorate.

While these spaces enable social action, they also *regulate* or *restrict* it, however. For instance, these same spaces involve rules that the participants had to follow: the rules of a research group, an experiment hall, or CERN, meaning that the participants were subjected to several different authorities at once. The following excerpt is from my field notes regarding a doctoral student, who was planning to attend an international physics conference and present their results there:

> [The doctoral student] got accepted to [the conference] to present his results, which are now almost ready. They first need to have them accepted by the collaboration. They present their results next Monday, which is a rehearsal, and then there's the actual talk on Tuesday. After this they will still have the chance to make modifications. The results will finally be approved or rejected two weeks before the conference. [25 August 2016]

Although in the end the results were accepted and the doctoral student attended the conference, it was a process involving several different authorities, which functioned as a gatekeeper for this particular event and action: attending an academic conference. Such a process was not rare: To be allowed to perform particular actions in experiment halls, the participants had to complete a specific training course (such as a harness training, confined spaces training, or fire training). The restrictions also concerned an actual, physical access, as the CERN sites are not open to anyone. One has to have an access card to enter, for which one needs to fill in several forms and visit two different offices, which both had differing and limited opening hours.

The second regulating (or restricting) factor was related to longer timescales impacting the participants' studies and life: Although most of the participants had a short or medium-term action plan, as well as guaranteed funding, it was equally clear that 'life after PhD' was a mystery to all of them. Previous research has already shown the complex relationship between mobility and career advancement, especially for those with a partner and/or children (see e.g. Oliver 2012). Decisions regarding mobility are not one-time events but rather an ongoing process, where one has to constantly negotiate with family members (Ackers and Stalford 2007). Here, the spatial (where to live?) and temporal (in one year/five years/ten years) dimensions also come together to form a highly complex nexus, bringing two more authorities for doctoral students into view: the family and the labour market. However, for the participants of this study, there was an additional group: friends. As one participant reflected their current, mobile situation and the future:

> I don't want to live abroad for many years. I want to have a place where I can make friends that will stay there, rather than go somewhere and make a lot of PhD friends, who five years later will all be in different places. I want to have a games club where I can get to know some people and they can invite me to dinner and if I go abroad for a semester and come back, they're still there.

The excerpt suggests that perhaps there are other matters besides career, a steady income, and family that bear an importance for doctoral students when they make their plans for postdoctoral life.

The final regulating factor was also connected to a high spatial scale-level: the state. It was not unusual that a participant was born in one country, doing their doctorate in second (as an international student), lived in third (usually France), and worked in fourth (Switzerland). Most participants crossed the border of France and Switzerland twice a day, sometimes more often. The frustration caused by the practicalities related to expatriate life is well illustrated by the following excerpt:

> [In France] you need an address to open up a bank account but you need a bank account to have an address, so stuff like that. There are so many steps in renting a house. You need to get an insurance for that house, for which you need a French bank account. Electricity and water can only be paid from a French bank account so you need that but to open a bank account you need a valid address because all the mail will go to that address you provide there so … [… and] I wanted to get a health insurance, which is paying a lot of thousands of euros over this period, so I thought they would be interested in having me. But speaking another language, the phone conversation failed miserably. In the end we realised we don't understand each other

In the excerpt, the participant lists a number of practical challenges: where and how to find housing, how to open a bank account, pay electricity and water bills, acquire a health insurance, and in which language(s) to do all this. Although many participants spoke a little bit of French when arriving in the area, it was usually not enough to discuss issues more complex than what to order at a restaurant. Using English during official encounters was sometimes an alternative, but more often it was not, adding additional obstacles for the participants to cross in their every-day encounters.

Discussion: changing the nexus of practice

As identified in the analysis, most of the social action involved in doctoral studies is happening in small (or *local*) spaces, meaning that they are of lower scale: they are *momentary* (last for a brief period of time) and *individual* (each participant is doing a *specific* task assigned to them). However, the action itself is regulated by authorities (higher scales), such as different research groups and university departments, which are *impersonal* and *collective* agents. As an additional authority for doctoral students each had their respective universities and funding agencies that regulated the completion of their degree: Each institution has their own (*general, objective* and *uniform*) regulations, according to which doctoral studies have to be carried out. These regulations, in turn, might be a result of specific national-level laws, scales that could be considered as being 'in-between': not fully local (within a department or a university) but not fully translocal (extending beyond national borders) either.

What nexus analysis allows to do is to shift the attention from these specific authorities towards the tension between the different scale-levels they operate at: Regulations that are formulated on a high scale level (such as national legislation) apply to everyone within one country or area largely ignore the individual needs or motivations. This can place doctoral students (or any persons) experiencing *complex mobilities* (Aarnikoivu et al. 2019; Archer 1995; Urry 2007) or *hypermobility* (Courtois 2020) into a challenging situation: While they all have their own individual reasons and motivations to pursue doing a doctorate at CERN, or abroad in general, they are also part of a power-invested system and discourses on the internationalisation goals of European universities, European Commission, and regional and national policies. While these policy goals are uncritically profiled as highly important, they might not be viewed as positively by an internationalising individual trying to fill in a French tax form for the first time in their life.

As discussed earlier in this article, holistic models on doctoral education (e.g. Cumming 2010; Holdaway 1996; McAlpine and Norton 2006; Thorlakson 2005) have treated doctoral education in a two-dimensional way; focusing largely on what happens *during* doctoral studies. It has now been ten years since the model by Cumming (2010) and research on doctoral education is thriving.

Simultaneously, however, doctoral students' mental health issues are increasing (Barry et al. 2018; Woolston 2017, 2019). This raises two questions: What are we currently missing? Are we asking the right questions in the first place? Incidentally, these are the same questions that inspired the Scollons to create the nexus analytical framework was conducted, in part, at the University of Alaska already 40 years ago. What connects that moment in time to the present day is the imperative of change, seen by activist scholars such as the Scollons, Blommaert, or Kemmis, concerning topics that matter. Following the two stages of engaging and navigating the nexus of practice, the final stage of nexus analysis is *changing* it. Scollon and Scollon (2004) asserted change as the goal, from the outset, as they crafted nexus analysis. Conducting nexus analysis is not supposed to have a positivist solution bur rather find and ask new, better questions for future course of research, practice, and policy-making.

Based on the analysis, I present the following set of questions that will guide my subsequent actions, as an analyst, as I move forward in the development of my evolving approach to doctoral studies:

(1) *Physical and vertical spaces:* Could universities provide even more flexible ways of studying and working, independent of place and/or time? Which authorities are enabling/regulating/restricting (mobile) doctoral education?
(2) *Complex mobilities:* Do personnel in higher education institutions across Europe have the sufficient skills and knowledge to provide assistance for their students experiencing complex (or any type of) mobilities? If not, could the situation be improved?
(3) *Future:* Could the individual needs of mobile doctoral students (i.e. future workforce), the needs of their families, and the shared needs of European knowledge economies be better articulated? Do doctoral students have to 'accept future uncertainty', or can it be reduced by changes in practices and policies regarding the challenges this analysis spotlights?
(4) *Questions regarding the use of nexus analysis:* Could scales and nexus analysis, used here in a STEM context, uncover equally interesting findings in other types of settings? If nexus analysis crosses state-of-the-art on the topic of doctoral education, does it have similar potential on other, equally well-beaten paths?

Asking questions alone does not cause change, however. I also do not argue that studies focused on individual phenomena, such as supervision, writing, or mental health should be completely discarded. Rather, I am arguing that in order to *facilitate change*, narrow questions, focal points, or levels of analysis are not enough. Moreover, it ought to be acknowledged that a single study is not enough to address the various challenges pointed out in the analysis – this would be too heavy a burden for any study. However, what a single study such as this one can do is to open up a discussion on how social action – such as doing doctoral studies – *could* be approached.

Conclusion

Although the data collection for this study ended already at the end of 2016, afterwards I have seen almost all of the participants graduate and find their place in the job market, either in academia or in industry. Even those who have not yet graduated are well on their way doing so. Some of the participants have left CERN with their doctorates while some of them are still there. But even though these doctoral students' stories have perhaps been more positive than they expected back in 2016, their anxieties and uncertainties should not be discarded as something that 'will eventually pass', because they might not, which again might have severe consequences as shown by the recent literature on doctoral students' mental health (see Levecque et al. 2017).

In this article, I have shown how the spatiotemporal dimension of doctoral education can be studied by utilising Blommaert's conceptualisation of scales, within the mode of inquiry of nexus analysis. The analysis shows that doctoral students act – and are acted on – within multiple horizontal

but also vertical spaces, which all have an effect on shorter but also much longer timescales. This viewpoint connects the existing literature on doctoral education and the individual issues it raises to a wider, more structural context, where European doctoral education takes place. This is something that has been missed in the general approach that has been taken to doctoral studies, especially during recent decades, as shown in the literature review.

If done well, inductive and holistic approaches allow the analyst to better tap into the complexity that is subjectively experienced by participants. At the same time, they offer more convincing accounts of the cultural and structural dynamics, which are not necessarily understood by the participants or any other actor within the scope of analysis. For this, nexus analysis has proven to be an excellent mode of inquiry: By combining different theoretical concepts (scales; social action; social practice) with different methodologies (insider ethnography; discourse analysis), it has allowed me to go beyond the individual facets of doctoral education – the typical targets of research – and to examine the bigger picture in a unique way. Finally, it has enabled me to form critical questions concerning the studied topic but also the mode of inquiry itself.

As Blommaert (2007, 7) stated, power is incorporated in our ways of imagining different phenomena. Doctoral education is no exception. Doctoral students, even those conducting their studies in 'dream-come-true settings', such as CERN, are still part of different layered, power-invested systems. In this way, they are no different from doctoral students who are doing their research 'within four university walls' and who are also involved with a number of different authorities, such as the university and the state – or, for international doctoral students, two or more states. Therefore, equally important to the central findings of this study are its implications: in many cases, the European Commission, national states, higher education institutions, and doctoral programmes have only scratched the surface where actors profile doctoral education geared towards twenty-first-century knowledge work. As Favell, Feldblum, and Smith (2007) have argued, *highly-skilled* (OECD 2008), mobile workforce, such as the participants of this study, are valuable for knowledge production and transfer, as well as for economic productivity of a country. We might not be able to predict to which country every person ends up moving after completing a doctorate. That said, whichever country it is, we ought to act on power-laden boundaries that currently make knowledge production far more convoluted and complicated than it needs to be.

Note

1. In his later work, Blommaert, Westinen, and Leppänen (2015) admitted that he was not very happy with his original ideas of scale, presented in the 2007 paper. He went on to call it underdeveloped – 'a clumsy and altogether unsuccessful attempt' (121). However, he did not give up on using the concept, and later refined it, drawing the concept fully into semiotics in the 2015 paper (Blommaert, Westinen, and Leppänen 2015). In his recent commentary, Blommaert (2019) looks back at his extensive work, presenting what scales as a sociolinguistic concept has enabled him to do, and what it has not.

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References

Aarnikoivu, M. 2016. "'Not in My Backyard But in My Front Room': A Review of Insider Ethnography." *Tiedepolitiikka* 41 (3): 47–56.

Aarnikoivu, M., S. Korhonen, D. Habti, and D. M. Hoffman. 2019. "Explaining the Difference Between Policy-Based Evidence and Evidence-Based Policy: A Nexus Analysis Approach to Mobilities and Migration." *Journal of Finnish Studies. Special Issue: Engaging the New Mobilities Paradigm in the Context of Finland* 22 (1&2): 213–40.

Ackers, H. L., and H. Stalford. 2007. "Managing Multiple Life Courses: The Influence of Children on Migration Processes in the European Union." In *Social Policy Review: Analysis and Debate in Social Policy 19*, edited by K. Clarke, T. Maltby, and P. Kennet, 317–39. Bristol: Policy Press.

Alvesson, M. 2003. "Methodology for Close up Studies – Struggling with Closeness and Closure." *Higher Education* 46 (2): 167–93.

Archer, M. 1995. *Realist Social Theory: The Morphogenetic Approach*. Cambridge: Cambridge University Press.

Baik, C., W. Larcombe, and A. Brooker. 2019. "How Universities Can Enhance Student Mental Wellbeing: The Student Perspective." *Higher Education Research & Development* 38 (4): 674–87. doi:10.1080/07294360.2019.1576596.

Baker, V. L., and L. R. Lattuca. 2010. "Developmental Networks and Learning: Toward an Interdisciplinary Perspective on Identity Development During Doctoral Study." *Studies in Higher Education* 35 (7): 807–27.

Baker Sweitzer, V. B. 2009. "Towards a Theory of Doctoral Student Professional Identity Development: A Developmental Networks Approach." *Journal of Higher Education* 80 (1): 1–33.

Barry, K. M., M. Woods, E. Warnecke, C. Stirling, and A. Martin. 2018. "Psychological Health of Doctoral Candidates, Study-Related Challenges and Perceived Performance." *Higher Education Research & Development* 37 (3): 468–83.

Blommaert, J. 2007. "Sociolinguistic Scales." *Intercultural Pragmatics* 4 (1): 1–19.

Blommaert, J. 2019. "Sociolinguistic Scales in Retrospect." *Tilburg Papers in Cultural Studies* 225: 1–7.

Blommaert, J., J. Collins, and S. Slembrouck. 2005. "Spaces of Multilingualism." *Language& Communication* 25: 197–216.

Blommaert, J., E. Westinen, and S. Leppänen. 2015. "Further Notes on Sociolinguistic Scales." *Tilburg Papers in Culture Studies* 89: 1–11.

Bourdieu, P. 1990. *The Logic of Practice*. Cambridge: Polity.

Brill, J. L., K. K. Balcanoff, D. Land, M. Gogarty, and F. Turner. 2014. "Best Practices in Doctoral Retention: Mentoring." *Higher Learning Research Communications* 4 (2): 26–37. doi:10.18870/hlrc.v2i2.66.

CERN. 2019. About CERN. Accessed June 26, 2019. http://home.cern/about.

Courtois, A. 2020. "Study Abroad as Governmentality: The Construction of Hypermobile Subjectivities in Higher Education." *Journal of Education Policy* 35 (2): 237–57.

Cumming, J. 2010. "Doctoral Enterprise: A Holistic Conception of Evolving Practises and Arrangements." *Studies in Higher Education* 35 (1): 25–39.

Favell, A., M. Feldblum, and M. P. Smith. 2007. "The Human Face of Global Mobility: A Research Agenda." *Transaction Social Science and Modern Society* 44 (2): 15–25.

Gardner, S. K., and B. Gopaul. 2012. "The Part-Time Doctoral Student Experience." *International Journal of Doctoral Studies* 7: 63–78. doi:10.28945/1561.

Geertz, C. 2004. "What is a State if it is Not a Sovereign? Reflections on Politics in Complicated Places." *Current Anthropology* 45 (5): 577–93.

Goffman, E. 1971. *Relations in Public*. London: Allen Lane.

Goffman, E. 1974. *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper & Row.

Hakala, J. 2009. "Socialization of Junior Researchers in New Academic Research Environments: Two Case Studies From Finland." *Studies in Higher Education* 34 (5): 501–16.

Holdaway, E. A. 1996. "Current Issues in Graduate Education." *Journal of Higher Education Policy and Management* 18 (1): 59–74.

Hopwood, N. 2010. "A Sociocultural View of Doctoral Students' Relationships and Agency." *Studies in Continuing Education* 32 (2): 103–17.

Hult, F. M. 2015. "Making Policy Connections Across Scales Using Nexus Analysis." In *Research Methods in Language Policy and Planning: A Practical Guide*, edited by F. M. Hult and D. C. Johnson, 217–31. Malden: Wiley-Blackwell.

Jazvac-Martek, M., S. Chen, and L. McAlpine. 2011. "Tracking the Doctoral Student Experience Over Time: Cultivating Agency in Diverse Space." In *Doctoral Education: Research Based Strategies for Doctoral Students, Supervisors and Administrators*, edited by L. McAlpine and C. Amundsen, 17–36. New York: Springer.

Kemmis, S. 2005. "Knowing Practice: Searching for Saliences." *Pedagogy, Culture and Society* 13 (3): 391–426.

Koole, M., and S. Stack. 2016. "Doctoral Students' Identity Positioning in Networked Learning Environments." *Distance Education* 37 (1): 41–59. doi:10.1080/01587919.2016.1153961.

Levecque, K., F. Anseel, A. De Beuckelaer, J. Van der Heyden, and L. Gisle. 2017. "Work Organization and Mental Health Problems in PhD Students." *Research Policy* 46 (4): 868–79.

Mantai, L. 2015. "Feeling Like a Researcher: Experiences of Early Doctoral Students in Australia." *Studies in Higher Education* 42 (4): 636–50.

Mantai, L., and R. Dowling. 2015. "Supporting the PhD Journey: Insights From Acknowledgements." *International Journal for Researcher Development* 6 (2): 106–21.
Martinsuo, M., and V. Turkulainen. 2011. "Personal Commitment, Support and Progress in Doctoral Studies." *Studies in Higher Education* 36 (1): 103–20.
McAlpine, L., and J. Norton. 2006. "Reframing Our Approach to Doctoral Programs: An Integrative Framework for Action and Research." *Higher Education Research and Development* 25 (1): 3–17.
Nasiri, F., and F. Mafakheri. 2015. "Postgraduate Research Supervision at a Distance: A Review of Challenges and Strategies." *Studies in Higher Education* 40 (10): 1962–69.
OECD. 2008. *The Global Competition for Talent: Mobility of the Highly Skilled*. Paris: Organization for Economic Cooperation and Development.
Oliver, E. A. 2012. "Living Flexibly? How Europe's Science Researchers Manage Mobility, Fixed-Term Employment and Life Outside of Work." *International Journal of Human Resource Management* 23 (18): 3856–71.
Parker-Jenkins, M. 2018. "Mind the Gap: Developing the Roles, Expectations and Boundaries in the Doctoral Supervisor–Supervisee Relationship." *Studies in Higher Education* 43 (1): 57–71. doi:10.1080/03075079.2016.1153622.
Pietikäinen, S., P. Lane, H. Salo, and S. Laihiala-Kankainen. 2011. "Frozen Actions in the Arctic Linguistic Landscape: A Nexus Analysis of Language Processes in Visual Space." *International Journal of Multilingualism* 8 (4): 277–98.
Poole, B. 2015. "The Rather Elusive Concept of 'Doctorateness': A Reaction to Wellington." *Studies in Higher Education* 40 (9): 1507–22. doi:10.1080/03075079.2013.873026.
Schatzki, T. R. 2002. *The Site of the Social*. University Park, PA: Pennsylvania State University Press.
Scollon, R., and S. W. Scollon. 2004. *Nexus Analysis: Discourse and the Emerging Internet*. London: Routledge.
Scollon, R., and S. W. Scollon. 2007. "Nexus Analysis: Refocusing Ethnography on Action." *Journal of Sociolinguistics* 11 (5): 608–25.
Shahjahan, R. 2019. "On 'Being for Others': Time and Shame in the Neoliberal Academy." *Journal of Education Policy*, doi:10.1080/02680939.2019.1629027.
Sverdlik, A., N. C. Hall, L. McAlpine, and K. Hubbard. 2018. "The PhD Experience: A Review of the Factors Influencing Doctoral Students' Completion, Achievement, and Well-Being." *International Journal of Doctoral Studies* 13: 361–88.
Thorlakson, I. 2005. "Models of Doctoral Training in European Political Science." *European Consortium for Political Research* 4 (1): 82–94.
Trafford, V., and S. Leshem. 2009. "Doctorateness as a Threshold Concept." *Innovations in Education and Teaching International* 46 (3): 305–16.
Urry, John. 2007. *Mobilities.* Cambridge: Polity Press.
Waaijer, C. J. F., R. Belder, H. Sonneveld, C. A. Van Bochove, and I. C. M. van der Weijden. 2017. "Temporary Contracts: Effect on Job Satisfaction and Personal Lives of Recent PhD Graduates." *Higher Education* 74 (2): 321–39.
Wellington, J. 2013. "Searching for 'Doctorateness'." *Studies in Higher Education* 38 (10): 1490–503. doi:10.1080/03075079.2011.634901.
Woolston, C. 2017. "Graduate Survey: A Love–Hurt Relationship." *Nature* 550 (7677): 549–52.
Woolston, C. 2019. "PhDs: The Tortuous Truth." *Nature* 575 (7782): 403–6.

Appendices

Appendix 1. The set of analytical questions used at the data collection stage (formed on the basis of A practical field guide for nexus analysis *[Scollon and Scollon 2004, 152–178]).*

(1) How habitual or innovative is the action-practice for that person? That is, to what extent is this a 'practice'?
(2) How intentional (agentive) or accidental? How do you know? According to whom is this intentional?
(3) When and where is the last prior 'like' action? That is, is there a link between this action and this type of place or these other participants?
(4) To what other practices is this linked for this person? Does he or she always do something else at the same time?
(5) How much is this action keyed to the uniqueness of the person, or, alternatively, how dispensable is the person? Could it be anybody who does the action, just so long as it gets done?
(6) What is the emotional valence or the emotional impact on the participant of this action? Is it exciting, routine, or boring to do this; is the action sought or avoided? Is it so much part of the historical body that the person sometimes wonders why it isn't as enjoyable as it used to be or as anticipated?
(7) What discourses are transformed, resemiotised or internalised in this action?
(8) What 'place' supports are available for this action such as furniture of particular kinds or the ambience or lack of it?
(9) Is this a customary or unusual place for this action?

(10) What kinds of over discourse are present?
(11) Are any of the participants calling attention to objects or structures so that they can be talked about?
(12) Overall how 'automatic' are the actions here?
(13) Conversely, how new or unpractised are the actions you are studying?
(14) If the action is new or unpractised, are there anticipations of future arcs of the cycle where this action is expected to become practice?
(15) What conceptual tools are used (language, semiotic codes, number systems)?
(16) How widely are these shared among the participants? How long or fully internalised are these concepts? Where, when, or with whom were these concepts internalised?
(17) How is this action anticipated in the historical body of the persons involved?
(18) Or was this action anticipated much earlier such as in taking a training course?
(19) How often does this action occur in the life cycle of this person, or mediational means, or discourses? Is it very frequent, very rare?
(20) What are the immediately preceding and following intervals like or is this action a point in a tight series of actions?
(21) Is this place a place of action or a 'quiet' place where little is expected to happen?
(22) What are the big 'D' discourses present in this discourse? How are those discourses 'present' as overt and how are they submerged?
(23) What languages are used in taking an action; are they the same or different from the language of the analysis; does that make a difference in the templates being developed to analyse the action?
(24) What power is implied in some participants (like the analyst) keeping notes and making recordings?
(25) What hidden discourses are there? That is, what's not being said, being evaded, or so obvious that it's virtually invisible but nevertheless governing the entire action or activity?
(26) How are the participants in the nexus analysis positioned in respect to the analyst conducting the discourse analysis?

Appendix 2. The set of analytical questions used at the data analysis stage (formed on the basis of A practical field guide for nexus analysis *[Scollon and Scollon 2004, 152–178]).*

(1) What are the typical spaces and timescales for the people, discourse, places, and mediational means that are crucial to the action you are studying?
(2) How are these spaces and timescales constructed discursively and by whom?
(3) How much agreement is there about these constructions?
(4) In which spaces and where in the cycle does this action occur?
(5) What relationships or linkages are there among or across spaces or timescales?
(6) Do some of these elements (or all of them) seem completely inevitable or completely accidental? Why are the inevitable ones so linked to this action?
(7) Are two practices always linked or only accidentally or sporadically?
(8) Do all participants see these linkages the same way?
(9) Are some links incommensurable? That is, are there prohibited or impossible elements or linkages?
(10) What anticipations on the part of which key social actors lead up to this action?
(11) To what extent is the action embedded in the historical body in different ways for the participants involved?
(12) Is the action limited in some way by the circumferences set by participants, discourses, objects, places, time, etc.?
(13) Do all participants agree on the most relevant spaces, timescale or circumstance?
(14) How do the participants talk about why they have come to take this action?
(15) Of what history do they see it as the outcome; what future is it projected toward?

IV

EXPLAINING THE DIFFERENCE BETWEEN POLICY-BASED EVIDENCE AND EVIDENCE-BASED POLICY: A NEXUS ANALYSIS APPROACH TO MOBILITIES AND MIGRATION

by

Melina Aarnikoivu, Sirpa Korhonen, Driss Habti & David M. Hoffman, 2019

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Explaining the Difference between Policy-Based Evidence and Evidence-Based Policy: A Nexus Analysis Approach to Mobilities and Migration

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Abstract
In this policy analysis, we explain the difference between policy-based evidence (PBE) and evidence-based policy (EBP). We argue that better, evidence-based understanding, explanations, and questions can be sought by problematizing the challenging forms of twenty-first century migration and mobilities. We emphasize that this can be done by not confusing PBE with EBP, especially when each is needed as a basis for specific types of action. By focusing on topics often viewed as "unrelated" or confused with one another, we underline the social dynamics that are unfamiliar to many policy actors, professionals, and stakeholders, who rely on scholars for actionable analyses. Our mode of inquiry is based on nexus analysis, and it contrasts and problematizes our recent studies, research in progress related to distinct types of mobilities and migration. The article draws on four disciplines and a more diverse set of perspectives than is the norm in Finland. Because of this, we are able to articulate better the relationship between contemporary migration challenges in Finland and present better policy questions that the mobilities paradigm brings into view.

Keywords: higher education—Europe, migration, mobilities, nexus analysis, policy analysis

1 The authors are all founding members of the *Migration, Mobilities and Internationalization Research Group* (miGroup), a jointly led initiative of the Finnish Institute for Educational Research (FIER) and the Centre for Applied Language Studies (CALS) at the University of Jyväskylä.

Introduction:
Who Talks about Migration and Mobilities and Who Does Not?

Our journey began in 2016 when we took part in a Finnish sociology conference, the theme of which was "the Future of the Sociological Imagination." In our presentation, we chose to discuss what was normally missed within the narrow, uncritical, and unproblematized way "immigration" was being approached across Finland. We argued that the focus failed to engage scholarly and policy debate that better explains the relationship between migration and the mobilities paradigm (Urry 2007). Our problematization, following Denzin, stressed the following propositions:

> . . . [t]here are two types of interpreters: people who have actually experienced what has been described, and those who are often ethnographers, or field workers, so-called well-informed experts. These two types (local and scientific) often give different meanings to the same set of thickly described/inscribed experiences. (Denzin 1998, 325)

Denzin's distinctions were important in 2016 because in popular culture, the media, policy circles, and stakeholder groups, as well as in scholarship, many were focused on the sensationalized reporting of "Europe's refugee crisis" and frequently conflated all discourses on migration into extremely narrow terms of refugees, asylum seekers, and (im)migration. What went unnoticed by many sociologists of migration whom we met at the conference was the empirically-based framing developed over decades by organizations such as the International Organization for Migration (IOM), as well as the new generation of studies focused on mobilities. Denzin's distinction of (1) those experiencing a phenomenon from (2) experts implies two others: (3) persons who are both and (4) persons who are neither (table 1 below). This problematization highlights "who talks about migration and mobilities in Finland?" In terms of nexus analysis (Scollon and Scollon 2004), the mode of inquiry used in this article, these distinctions problematize four distinct historical bodies and perspectives that potentially come together in specific nexuses to act on migration and mobilities.

Initially, our rationale for using nexus analysis was motivated by its potential to problematize issues, topics, and settings that many of our Finnish-based colleagues were missing when it came to the relationship between migration and mobilities. Our purpose was to contrast those who frame discourses and act on "immigration" in Finland with those who do not or cannot. These specifically include people with professional competence(s) regarding migration or mobilities but who often have little or no experience of either topic. We do not claim that any of these points of departure is better or worse. Instead, we argue that relying on a single perspective when all four are important is unlikely to be relevant to

Four points of departure for discourse and action regarding migration and/or complex mobilities	Experience(s) of migration and/or complex mobilities	
Professional competence(s) regarding migration and/or complex mobilities	Persons with professional competence(s) regarding migration and/or complex mobilities **and** experience(s) of migration or complex mobilities.	Persons with professional competence(s) regarding migration and/or complex mobilities **but** with no experience(s) of migration or complex mobilities.
	Persons with experience(s) of migration and/or complex mobilities **but** with no professional competence(s) regarding these topics.	Persons with no professional competence(s) regarding migration and/or complex mobilities **and** no experience(s) of migration or complex mobilities.

Table 1. Historical Bodies of Discourses. Based on Hoffman (2007, 43), adapted by Hoffman, Habti, Korhonen, and Aarnikoivu (2016).

growing groups that correspond to fundamental qualitative distinctions and the key situations and settings they spotlight. By doing a policy analysis—rather than assuming that the present policy is adequate—we ask: might different types of policy options and alternative courses of action come into view when taking into account the actualities embodied by specialists from three of the four quadrants rather than relying on only one of four potential points of departure? More simply put: who could discuss migration and mobilities but normally does not?

It should be noted that *policy analysis* is distinct from *policy research* that focuses on existing policies, practices, and implications using "evidence" defined in choices that have already been made (Wildavsky 1987). Policy analysis contrasts alternative courses of action and the best evidence for justifying one approach over another. In other words, much policy research involves *policy-based evidence* (PBE). Policy analysis, by contrast, concerns articulating policy options and identifying the best available evidence, often advanced as *evidence-based policy* (EBP).

This article first overviews key background issues and the relevant literature that allows us to use nexus analysis to explain and underline

the need for policy analysis as a process of contrasting alternative courses of action and the evidence supporting them (Wildavsky 1987). Following the literature review, we detail the way in which we have drawn on nexus analysis, as well as define its key features. In our analysis, we provide four concrete, research-based examples (vignettes) from the topics we are each focused on in our respective disciplines: applied language studies, intercultural communication, sociology, and comparative and international higher education studies. Finally, in our discussion and conclusions we advance our claims, in terms of policy analysis of the most relevant distinctions, types of evidence, and focal points we believe could be used to articulate viable alternatives aimed at a constructive, realistic change, based on better questions grounded in multiple perspectives.

Background and Literature Review

Nexus analysis, the mode of inquiry used in this policy analysis, identifies and spotlights significant *discourses in place* (Scollon and Scollon 2004) that shape specific situations. Single discourses often reveal something interesting. However, they fail to explain the set of perspectives we problematized in our introduction, or their relationship. As a necessary first step, we review the most visible discourses in place that concern our topic. The linkages between our work and the key literature, in turn, correspond to the broader *cycles of discourse* (Scollon and Scollon 2004) that form the wider context for our topic. Both discourses in place and cycles of discourse are key focal points in nexus analysis, explained in more detail later in the methodology section.

Internationalization Policy that Misses More than It Reveals

It is not difficult to locate studies in higher education research, for example, which claim to be international but which pay little notice to mainstream scientific debate, theoretical developments, methodologies, or critical inquiry (Kosmützky and Nokkala 2014). While internationalization is a very powerful concept across our analysis, much of it results from "following" fashions (Birnbaum 2000) that are connected to the short attention span of policymakers (Teichler 2004) instead of breaking new scientific ground. Within the established discourses that are focused on internationalization and mobilities (Urry 2007), what explains several challenges is the failure to grasp the key tensions between *established* forms of internationalization and academic mobility (Trondal, Gornitzka, and Gulbrandsen 2003) and *emergent,* complex mobilities (Archer 1995; Urry 2007). Within Finnish society, a critical look at higher education is necessary because much contemporary migration is socially mediated within internationalization discourse (Käyhkö, Bontenbal, and Bogdanoff 2016).

The explanation for this is higher education, which is grounded in liberal ideology and is where normative internationalization and academic mobility has never been seriously critiqued (Pashby 2015). While

mainstream social sciences and humanities made major advances in scholarly inquiry, liberally-driven, neo-colonial framing of internationalization and mobility were never subjected to emancipatory paradigm shifts aiming at social inclusion happening on the same campuses. This lack of scholarly horsepower left higher education specialists ill-prepared for the transnational ideological shift in which neoliberal ideology supplanted liberal ideology. While a few specialists discussed this ideological shift as it was happening, seminal critique (Slaughter and Leslie 1997; Rhoades and Slaughter 2004) was not aimed at internationalization, mobilities, or migration. A few early efforts critiqued the global implications of transnational academic capitalism and international agenda setting (e.g., Currie and Newson 1998; Marginson 2006; Kallo 2009) accounting for the complexities of mobilities and migration (Marginson, Murphy, and Peters 2009; Tremblay 2004; Urry 2007). However, by the time Pusser et al. (2012), Slaughter and Cantwell (2012), Kauppinen (2012), and Cantwell and Kauppinen (2014) got traction on transnational academic capitalism, global higher education had adopted neoliberal new public management.

Amid this largely undetected ideological shift, the central distinction that our analysis brings into focus concerns settings that are inclusive, international, and innovative versus those that are not, particularly regarding contemporary mobilities. These key discourses in place are particularly important because universities in Finland frame much of their current efforts aimed at "immigration," especially regarding refugees and asylum seekers, in terms of uncritical internationalization policy discourse. Much of this discourse is ill-suited to the acute social challenges highlighted in our four vignettes, presented in the analysis section. In stark contrast to much uncritical, atheoretical, and unproblematized neoliberal higher education policy aimed at internationalization and academic mobility, a new generation of social scientists zoomed in on "the mobility turn" (Urry 2007) over the past decade. Inspired by Urry (2007), this paradigm, as the articles of this special issue highlight, is squarely aimed at the type of complexity that inward-looking social science simply misses.

International Highly Skilled Migration and the "Mobility Turn"

Increasing global mobility[2] has also accelerated the mobility of highly skilled people[3] worldwide (Favell, Feldblum, and Smith 2007). This is a result of the globalization of information, economies, transports, goods,

2 "Migration" and "mobility" as concepts in the current literature on highly skilled people are referred to and used in different ways. The term *migration* usually entails movement from one country or location to another for necessity or with enforcement, while the term *mobility* infers a free and self-initiated movement (Habti and Koikkalainen 2014), often meant for a shorter stay abroad, or it may refer to movement within the European Union.

3 OECD (2008) defines a highly skilled person as someone with either tertiary education or equivalent experience. Conceptually, different definitions and classification of the category of highly skilled person were introduced at national and international levels (see OECD 2008, Lowell 2008). Combining educational level, sector of occupation, and salary threshold is often the strategy used by destination countries to guarantee that the actual qualifications of these migrants will match their migration status (Batalova and Lowell 2007; Cerna 2010).

higher education, and capitals. Mobilities challenge the idea of national borders and nation-states, spotlighting the needs for this workforce (Castells 2000; Xiang 2003; Smith and Favell 2006) and sparking worldwide debates about the "global war for talent" (OECD 2008).

The dynamic nature of the global labor market and economy raises new questions for further research, including the forms and patterns of mobility (OECD 2008). The internationalization of higher education is a major driver of the mobility of professionals, students, and academics, and their cross-border movement (Waters 2008; OECD 2008; Habti 2010, 2014, 2018) for better academic, educational, and employment opportunities (Xiang 2003; Saxenian 2006), or even cultural enrichment (Beaverstock 2005). However, the integration of these groups is not solely structured by the productivity of their knowledge and skills in the labor market, but could be subject to "symbolic struggles" and power relations over recognition, qualifications, and access to state institutions (Weiss 2006; Habti 2014).

Recent research has focused on theoretical and analytical developments linking occupational, socio-economic, socio-cultural, spatial, and life-course dynamics that affect mobility or hyper-mobility for personal, economic, or socio-cultural reasons. This research attends to the interplay between micro-, macro-, and meso-level factors that shape job, career, social, and spatial mobility for the highly skilled, as well as the extent to which they are integrated within receiving societies (Favell, Feldblum, and Smith 2007; Habti 2012; Habti and Elo 2018, 12). Recent research also addresses the life-course perspective (Wingens et al. 2011; Findlay et al. 2015) and the individual life stories and experiences of highly skilled migrants (Habti 2012; Ryan 2015). However, much has been left untouched regarding the multi-faceted nature of highly skilled mobility in a rapidly globalized world (Sheller and Urry 2006). A new theoretical and empirical approach, the "mobility turn" (Hannam, Sheller, and Urry 2006; Cresswell 2010) or "new mobilities paradigm" (Sheller and Urry 2006; Urry 2007) offers a new avenue forward with the literature of the mobilities paradigm by incorporating new ways of theorizing. The mobility turn highlights the overlooked "importance of the systematic movements of people for work and family life, for leisure and pleasure" (Sheller and Urry 2006, 207–8; see this issue's introduction).

Much of the higher education internationalization discourse is poorly suited to contemporary demographically driven challenges, such as migration in Finland. The mobilities paradigm and associated discourses offer a more robust approach, but are not widely used in the nexuses we focus on in our analysis. One possible reason for the disconnect between these two key discourses in place is a third discourse, which is not new, historically, but which is being experienced as new by some scholars and policy actors in Finland. The disconnect is further explained by the myopic focus on the "migration crisis" in a policy discourse that ignores the recent generations of migrants—already in Finland—who have been arriving in the country

over the past several decades (Jaakkola 2005). While refugee and asylum flows are important, policy analysis can only be done by understanding they are a single focal discourse, not *the* (single) discourse into which all mobilities can be—or should be—placed.

Refugees, Asylum Seekers, the "Migration Crisis," and "Return"

At the same time when international highly skilled migration benefits corporations, organizations, universities, and national economies (e.g., Harvey 2006), the EU is facing the most complex refugee challenge in its history. In the current situation, policy has aimed to control "floods" and "masses" of refugees and asylum seekers entering the EU. The International Organization for Migration[4] and supranational actors emphasize "voluntariness" of returns as a policy option but many are mandatory rather than voluntary (Black and Gent 2006; Bradley 2008; Hautaniemi, Juntunen, and Sato 2013). Those who opt for a truly voluntary return within return programs, (specifically, refugees with a permanent-residence permit) confront a decisive question regarding their future: to go or to stay? Returns result in giving up residence permits in exchange for travel expenses and (small) reintegration assistance, in an all-or-nothing decision (Huttunen 2010). These policies do not account for transnational dynamics or consider future developments in the region of return. Eastmond (2006) noted that the returnees from Sweden often adopt a different strategy and organize the return individually, ensuring a back-up plan, and Finlay, Crutcher, and Drummond (2011) explain that highly educated Sudanese refugees were prepared to return with their skills, to help in rebuilding their country, provided they are granted Canadian citizenship before the return.

Returns—voluntary, mandatory, or forced—are regarded as ways to control undesired mobility. This solution is often framed as final, unconcerned with the consequences for the returned, often deported, individuals. Returns have become an integral component of the EU migration policy (Black and Gent 2006; Harvey 2006). Within this highly politicized humanitarian emergency, perspectives from individuals seeking asylum and evidence based on research following them up are increasingly needed to frame both specialists' and public discourses. People with refugee experience have been forced to leave and they have experienced the loss of control over many aspects of their lives, but, nevertheless, they are individuals with skills, knowledge, and strengths (Correa-Velez, Gifford, and Barnett 2010), having obtained language, social, and networking skills, both en route and in host societies. However, these issues still remain largely unnoticed within the narrative of refugee masses.

Policy-oriented research on forced migration often focuses on macro-level phenomena. We argue that the analysis of individual experiences *could* inform policies and provide further insights to the study of refugees. Intercultural communication, as a field of study, has often the individual in

4 See, e.g., http://publications.iom.int/system/files/pdf/avrr_in_the_eu.pdf.

the focus of research, but it has long served the needs of the affluent: business people and their family members, exchange students, and sojourners, and only marginally studied forced migration (Steyn and Grant 2007; Szkudlarek 2010). Refugees' and asylum seekers' restricted mobility and dependence on policymakers' decisions highlights the intertwined questions related to citizenship, human rights, power, and agency at the core of individual refugee experiences. Up until now, these have been of secondary interest in policy making, if noticed at all (Finlay, Crutcher, and Drummond 2011; Kibreab 2003; Muggeridge and Doná 2006).

Having discussed the most prominent discourses in place regarding migration and mobilities, we now move on to discussing nexus analysis in more detail. This is important, as nexus analysis as a mode of inquiry is not widely used in the disciplinary communities that form our key audiences. For that reason, it is important to outline the key features that allow us to make valid claims based on the evidence used in our argument. While policymakers might not always be keenly interested in the ways in which we arrive at our findings, it is critical that we make the methodological and theoretical connection between the problematization of our topic, the findings, and ultimately the policy implications of those findings.

Methodology: Nexus Analysis as a Mode of Inquiry

As a member of a research team,[5] Korhonen, one of the authors, asserted in 2015 the need for policy analysis across our team's respective areas of expertise during a thesis advising session with co-author Hoffman, Korhonen's dissertation supervisor.[6] Our experientially grounded hunch was the need for a far more nuanced understanding of the complex relationships cutting across settings where ideas, perspectives, and people are structurally excluded from view as a result of action that can be empirically observed but that most often goes unnoticed in the policy process (Hoffman et al. 2015). In other words, at the outset of our collaboration, we understood that the social dynamics we focus on are not very well understood by the specialists or policymakers within the perspectives we have problematized. Because this is the case, understanding key relationships across our distinct but interrelated topics becomes highly unlikely. Nexus analysis was developed by Scollon and Scollon (2004) in very similar circumstances, which is why we selected its theoretical and methodological premises to guide our analysis. The four different vignettes drawn from our respective fields of interest are outwardly "unconnected" in the minds of many within the types of perspectives we problematize in our introduction. That said, nexus analysis has allowed us to understand salient connections better, in ways that are actionable in terms of policymaking.

5 Migration, mobilities and internationalization (miGroup), https://ktl.jyu.fi/en/research/miGroup.

6 Discussions between Sirpa Korhonen and David M. Hoffman, Jyväskylä, 2015.

Key Terms in Nexus Analysis

In order to test the potential of nexus analysis, it is important to outline its framework and features. To do so, we begin by defining a number of interrelated concepts. First, *a site of engagement* refers to settings in which mediated action is situated in a unique historical moment and material space where distinct practices intersect in real time. When a site of engagement is repeated regularly, it becomes a *nexus of practice*. In turn, the discourses regularly intersecting in these moments and material spaces are called *discourses in place*. There are three main activities that comprise nexus analysis. The first stage, *engaging the nexus of practice*, is the opening stage of the analysis, where analysts place themselves in a specific nexus of practice where they are both accepted and legitimate participants. Once having done so, they identify those *social actions* and *social actors* that are crucial to engaging the social issue in focus. Furthermore, the analyst needs to observe the *interaction order* of practices within the nexus. By interaction order Scollon and Scollon refer to any of the many possible social arrangements with which people form relationships in social interactions. Finally, in the first stage, the analyst determines the most crucial *cycles of discourse*—the histories and futures of different discourses that intersect in a particular nexus of practice (Scollon and Scollon 2004).

To understand the small changes happening in the nexus of practice, the analyst then needs to expand the analysis in both space and time and explore the connections between the past, present, and future discourses. This forms the second stage of nexus analysis, *navigating the nexus of practice*. At this stage, the analyst maps the cycles of people, places, discourses, objects, and concepts that circulate through the *micro-semiotic ecosystem* unique to each nexus. By doing so, the analyst wants to find anticipations, links, as well as their inherent timescales circulating through and within a nexus of practice. Moreover, one has to expand the *circumference* of the analysis from time to time, which means that instead of focusing and "getting stuck" on certain actions and moments, the analyst should "zoom in and out" to see if there are broader discourses that need to be considered when conducting the analysis (Scollon and Scollon 2004).

Last, *changing the nexus of practice* is what nexus analysis ultimately aims to do. By conducting discourse analysis, nexus analysis attempts to accomplish social change instead of merely studying it. "The outcome of a good nexus analysis is not a clear statement upon which further action may be taken. The outcome of a good nexus analysis is the process of questioning which is carried on throughout the project" (Scollon and Scollon 2004, 143–44). However, as is the case with many participative strategies aimed at social change, not everyone accepts the premise of social change as a scholarly objective within institutional, organizational, and professional settings (Scollon and Scollon 2004).

Our analysis hinges on the same type of historical and institutional contextualization as is used in the Scollons' "micro-sociological analysis" (2004). It has close parallels to an interest in identifying the everyday settings and situations that bring a larger picture into view. Like Scollon and Scollon, we are interested in the tensions between "micro-rhythms in the integration of social action at one extreme" (Scollon and Scollon 2004, 68) and the need to study the structural nature of participation in societies' most important institutions set against a challenging and complex geopolitical backdrop. The key link between the work of the Scollons and our work though is that, like them, we find ourselves "deeply embedded in a set of social issues that circulate(d) through virtually every aspect of our lives" (Scollon and Scollon 2004, 70). In other words, we do not have to identify a focal setting to study "outside" the locations where we live and work. The respective vignettes we focus on in our analysis, presented in the next section, are our daily lives.

Finally, those familiar with nexus analysis will recognize that the authors are much more in the beginning of a very long process than near the end. Therefore, we have to draw a sharp distinction between *doing* a full-blown nexus analysis and *drawing on* the theoretical and methodological logic of nexus analysis, in order to illuminate possible paths forward regarding a positive impact on acute social challenges. While outside the direct scope of our policy analysis, this is a very important distinction that we will fully address in the discussion and conclusion of this article.

Analysis: Better Questions Based on Understanding a Bigger Picture

Another key similarity between our work and the work of Scollon and Scollon (2004) is that we are also focusing on several empirically grounded sites of engagement, each outwardly distinct. Holistically, these allow a bigger picture to emerge. While it is possible to approach scholarship and policy on our respective topics "as if" they were unrelated, we argue that the best policy questions will be based on a better understanding of their complex interrelationships. Following Denzin's (1998) distinction (see introduction), these are four vignettes from the research topics each of us has been studying, living, or both for the past several years.

Vignette 1: Early Stage Scholars, Mobility, and the "Gap of Insecurity"

There has been a great deal of research done on academic work/life balance (see, e.g., Cooklin et al. 2014; Fox, Fonseca, and Bao 2011; Ward and Wolf-Wendel 2012). Furthermore, there has been a great amount that has been written about scientific mobility (see, e.g., Ackers 2004; Guth 2008; Veugelers and Van Bouwel 2015) and the internationalization of higher education (see, e.g., Marginson and van der Wende 2007; Kogan and Teichler 2007). However, the relationship between these bodies of knowledge is something that has been less talked or thought about. In her doctoral research, Aarnikoivu (in progress) examines the trajectories of

two groups of doctoral students. To do this, she applies nexus analysis as a general methodological approach. The first group of participants consists of physicists and engineers based at CERN, the European Organization for Nuclear Research, where Aarnikoivu did insider ethnography (see, e.g., Aarnikoivu 2016; Alvesson 2003) from July 2015 to December 2016. The participants are affiliated with universities in eight different European countries, including Finland. To clarify, the doctoral students at CERN are not typically employed by CERN, but instead they use the CERN facilities in order to carry out their dissertation work. Typically, they either work on grants or are paid by different research groups. The second group consists of doctoral students of applied language studies doing their dissertations at the Centre for Applied Language Studies, University of Jyväskylä, Finland. However, because the work of the second group is still in progress, only the first group will be discussed in this policy analysis.

Although there are several different issues that the doctoral students of the studied group were facing throughout their studies, the complex themes of *mobility*, *temporariness*, and the *gap of insecurity* were the most apparent ones that emerged while Aarnikoivu was navigating the nexus of doctoral studies at CERN. This could be explained by the fact that not only were the participants highly mobile people, having decided to work outside their country of origin, but they were also working in a highly mobile environment where people were continuously moving to or from. As studied earlier, academic mobility is usually connected to uncertainty related to fixed-term employment, which again presents challenges for researchers and their families (e.g., Oliver 2009, 2012). Researchers' family members normally participate in the decision-making regarding mobility (Ackers 2004), which comes up regularly when the contract of one (or both) of the spouses is coming to an end (Oliver 2009, 2012). Oliver (2012) has named this the "gap of insecurity" and points out that, in fact, mobility very often is not a choice but rather "a must" considering one's career advancement.

Based on Aarnikoivu's preliminary analysis, all the participants were generally very content with their current situations, and they were happy to work in such an inspiring scientific environment. However, when they spoke about issues that they were concerned about, they often talked about their families, friends, and the future. Among those participants who were either married, engaged, or even those who had started dating only recently, there was often worry about how the partner would cope outside the country of origin. For example, for a spouse moving to a new country because of a husband's or wife's work, it might be difficult to find a new job. Moreover, creating new social circles was considered to be time-consuming, and it demanded a great deal of effort, especially if there were small children in the family. Many of the participants also expressed their worry for the future—not only in terms of their own careers but also because of the future of their relationships: what will happen after graduation? This was a matter of concern especially for those participants

who were in a relationship with a person they had met while working at CERN—usually a person of a different nationality than themselves.

Although formally doctoral studies typically involve a very narrow range of people (such as the supervisors and thesis examiners), there are a number of other people and networks involved in the process of doing a doctorate: other academics (peers, other colleagues, and research participants), family (parents, siblings, spouse, children), and friends (Hopwood 2010; Mantai and Dowling 2015), who all have an effect on the course of doctoral studies, knowingly or unknowingly (Baker and Lattuca 2010; McAlpine, Jazvac-Martek, and Hopwood 2009). The need to extend the viewpoint beyond the doctoral student/supervisory relationship has already been pointed out by others (e.g., Hopwood 2010; Wright 2003). In the research regarding doctoral studies, however, the aforementioned groups are often referred to as "support." Although undeniably important for the doctoral journey itself, it is apparent that in the nexus of practice of carrying out doctoral studies the role of family and friends is much more significant than to simply "offer support": It is *with the help of* but also *because of* these groups that doctoral students make decisions during their studies and especially after they graduate. What Aarnikoivu would, therefore, like to ask is whether all these crucial social actors and their roles are taken into account when making decisions and planning policies regarding doctoral studies—and the early-career research stage—in Finland and elsewhere in Europe.

Vignette 2: The Most Valuable Data Source? The People We Never Bothered to Ask

In order to understand the consequences of migration policies better, it is possible to follow up on returnees with either a refugee or asylum-seeking background—those who have first-hand experience on return within the context of irregular migration. Researchers have tackled several aspects related to returns within irregular migration, and it is encouraging to see that individual voices are gradually becoming more prominent within a field of studies that has commonly focused on macro-level phenomena. Nevertheless, these returnees are often out of the public eye, even though they are the specialists whose experiences could spotlight important lessons for policymakers and organizations as to the effectiveness of present policy and practice. The people we never bothered to ask may well be the most valuable data sources, people who possess evidence-based knowledge of the whole refugee cycle, from the flight from crisis, to being on the move, entering the host country, the challenges entailed in settling in and attempting integration, the actualities of return, and the ever-present dilemmas entailed in remigration or onward migration. These people are not easy to reach, but, once located, they are often more than willing to share their insights, intrigued by the fact that someone cares.

In her on-going doctoral study, Korhonen (in progress) focuses on returns in the context of irregular migration. Specifically, the study looks at

refugees' and asylum seekers' return to their place of origin from Finland, after several years' stay in the host country. Korhonen did her field work for her dissertation in Iraqi Kurdistan (or South Kurdistan) in 2013 to interview returnees from Finland, along with follow-up interviews as long as almost two years after the initial ones.

The evidence from the interview analysis offers insights fundamentally distinct from the way most scholars and policymakers have researched or problematized migration within Finnish society. While many seem content with speculating on the negative sides of migration and what a great deal "we" might lose by letting in small numbers of people in crisis, the focus is on people who came to Finland as refugees but then returned and their perception of inclusion potential within Finnish society's most important institutions, organizations, and communities.

Korhonen's results spotlight key migration issues outside the view of "experts" and actors in the migration debate. Specifically, the current migration policies do not consider the policy implications and consequences on individual lives based on the available data in return and deportation contexts. These data from individuals whose actual experiences are subsumed by media headlines of "masses" and "floods" of migrants are missing from the discourses in place and interaction order that inform the policy cycle. Instead, asylum seekers are seen and treated as "illegals" in the eyes of the authorities but also in everyday discourses informing the action on migration, contradicting the viewpoint of individuals actually caught up in migration. What most discourses in place have in common is an oversimplified view of return migration and a lack of sustainable long-term, evidence-based decision-making. Real-world questions, such as the need for a voluntary returnee to come back to Finland or the EU, are not considered. The de facto "one-way return ticket" does not map onto the changing needs of either Finnish society, the geopolitical realities of the regions of origin, nor the obligations of the international community. Instead, returnees give up their residence rights in exchange for return. In a private discussion, a Finnish migration official stated that another option "does not exist," specifically, that "the returnees do not return" (to Finland).[7]

The present policy in many circumstances is "no second chances on European soil." However, the reality of global migration often entails further or remigration, in spite—or because—of "getting-rid-of-policies." Moreover, rigid borders, invisible to "us," control the lives of people with second-tier citizenship and human rights. What is not considered is that migrants who have been deported—or those who returned voluntarily but without additional financial or educational/professional capital—are often seen as "failures" upon return because they have not achieved what they were aiming at and are marginalized in their own communities. The time spent in the host society and its educational institutions benefits

7 A telephone conversation on October 27, 2015, followed by an email exchange, with an anonymous official in the Finnish Ministry of the Interior.

neither the returnees nor the host societies. The education received in Finland holds the power to enhance the migrants' position. It is, however, designed for the Finnish context and working life and mostly unsuitable for post-return circumstances.

Vignette 3: Cultural Capital Mobilization of Russian Physicians in the Transition into the Finnish Health Labor Market

Public debates on foreign physicians moving to Finland for employment, especially from non-EU countries, center on the assessment and recognition of their competences and qualifications to practice in healthcare services and ways of managing their labor integration. This process seriously impacts healthcare workers' initial integration stage at different levels (personal, social, socio-economic, and professional) as it necessitates a multi-layered struggle. Russian physicians moving to Finland initially experience a lengthy period of time working as trainees, referred to as the "transition penalty" (see Lochhead 2003), before they receive a license to practice. This affects their career progression and social mobility. The main question is how these physicians gain the credit of recognition and trust when entering the Finnish labor market. In his postdoctoral work, Habti engages these issues: to what extent does the integration process offer a high or low return in their career mobility, or meet the expectations of an employer? How do these physicians then succeed in the transition passage to work using their qualifications in Finland so that their qualifications are acknowledged as valuable cultural capital?

Habti discusses these questions using a relational approach that conceptualizes the value of qualifications of Russian physicians. Because the recognition of qualifications is related to socially constructed and biographically changing spaces (Weiss 2005), his study partly uses Bourdieu's (1986, 1990) conceptual groundwork, which serves as a relevant theoretical instrument that guides Habti's study, namely cultural capital, field, and symbolic capital. Bourdieu asserts that agents are embedded in collectively shared cultural and symbolic practices and that recognition is "traded" in markets and is symbolically logically grounded. As a concept, his cultural capital is based on skills and knowledge accumulated in education and the family (social networks), and it is constrained by state regulations that allow or limit the use of this cultural capital (Bourdieu 1986, 242–43). It embodies relational aspects of different social spaces. *Institutionalized cultural capital* is assessed for recognition depending on specific national (location-specific) contexts (Weiss 2005), using a specific nation-state institutional framework (see Neiterman and Bourgeault 2012) or transnational (globally recognized) contexts. When the value of this capital is known and recognized in different fields (contexts), it turns into *symbolic capital* and plays a role in social reproduction (Bourdieu 1989, 17). Cultural capital depends on the field (Bourdieu 1986, 1990), which is defined as a social space related to joint interests, formed by

shared norms, hierarchic positions, and struggles over the shared forms of capital (social, cultural, economic, symbolic).

The processes of building and mobilizing the components of cultural capital are time-related. These temporal processes, as a transition passage of integration into the labor market, transform this cultural capital. The value of the capital is negotiated when it is used in the labor market with employers or intermediaries in the job market. This process equals to what Bourdieu calls *symbolic struggles*. Otherwise, physicians seek ways in which the consequent loss or weakened symbolic capital does not signify a loss of the professional or social status in working life. Russian physicians have to struggle for their recognition within a hierarchical but symbolically legitimated structure of society because the process of integration and accreditation usually negatively affects career progression and social mobility in their initial career stage.

Using Bourdieu's relational social theory within the life-course approach (see, e.g., Kõu et al. 2015; Wingens et al. 2011), Habti's study aims to describe and analyze the perceptions and practices of these physicians who recount their experiences in establishing themselves in Finland, both in national and local cultural contexts. Habti's study also aims to present aspects that the Russian physicians consider as an integral part of the healthcare workforce. In addition, the study examines the more problematic or ambivalent aspects of establishing professionalism as a migrant from a non-EU, Eastern European country. This allows an understanding of the complex dynamic processes and the different strategies (struggles and negotiations) that govern their professional and organizational integration into the Finnish health services. The research is based on qualitative evidence about the basic questions related to these Russian physicians' integration process in a highly segmented labor market. The analysis is based on twenty-six in-depth semi-structured interviews with Russian physicians (21 F, 5 M) currently living and working in different regions of Finland.

Developing the theoretical and empirical synthesis can serve as a knowledge base for policy-actors, stakeholders, and concerned institutions. This empirical synthesis can also lead to a better, theoretically grounded understanding of the embedded dynamics and characteristics in the migration, integration, and career progression of this unique group in Finland. Understanding these complex dynamics is important when Finnish authorities improve policies and programs that address and target the recruitment and integration of foreign healthcare workers in Finland. In terms of nexus analysis, this vignette spotlights institutional, organizational, and professional nexuses in which the two fundamental policy questions are the following: (1) Are there alternatives to a six-year internship process for fully qualified physicians, including specialists, especially considering the shortage of medical doctors in several Finnish municipalities? (2) Is there a risk that underpaid MDs and specialists might choose

other migration destinations or leave for countries that offer better-paid integration in a fraction of the time?

Vignette 4: Underserved Populations in the Nordic Countries? We Don't Know.

From 2013 to 2015, authors Hoffman and Habti and their colleagues studied scholarly precariousness in Finnish higher education (Hoffman et al. 2015). The research process included presentations regarding key findings for personnel employed in both research institutes in the team's focus. The purpose of the presentations to personnel was peer-to-peer intervention, designed to provide a better understanding of the challenging personnel practices that explained scholarly precariousness. These presentations were given by different combinations of authors at over the course of the research. In addition, the scientific findings were presented by Hoffman in several presentations at international conferences on both migration and higher education studies (e.g., Hoffman et al. 2013; Hoffman et al. 2014; Hoffman 2015). In the latter stages of the study's write-up, Hoffman was asked to publicly comment on the critical approach his team had taken to the topic of equality and unproblematized human resource policies and practices in two research institutes. The site of engagement was a seminar focused on "Equality and Diversity" in the university in which these institutes are located. Several policy actors were present, including the university's director of administration, a representative of the strategic planning unit, the chair of the university's equality committee, a board member of the student union, and an official from the Finnish Ministry of Justice, whose office had recently mandated new measures concerning equality and non-discrimination, based on updated legislation that applied to all organizations in Finland.

The majority of the seminar presentations were by institutional decision-makers and policy actors, reacting to the recent legislation. In the only research-based presentation, Hoffman and the study's co-authors Siekkinen and Stikhin each pointed out research and experienced-based findings that aimed to interrogate critically the legislative and policy-driven discussion that was taking place. In his comments, Hoffman's central point problematized the relationship between three ideas *stated* to be important in the European Union and in national and university policy: internationalization, attractive academic careers, and equality. Drawing from several studies, Hoffman pointed out that the easiest way to gauge the extent to which ideas stated to be important (in policy discourse) are *actually* important (in terms of action) was through the direct observation of publicly available information that ministries and universities routinely make available on their websites (Hoffman and Välimaa 2016).

In terms of *discourses in place*, Hoffman pointed out that all three topics are said to be important in both the university's current strategic plan and its operational agenda. Internationalization was referenced twenty-eight times in the strategic plan and eighteen times in the operational

agenda, attractive academic careers six times and four times respectively, and equality two times and once, respectively. Hoffman then pointed out that the number of people hired by the university to specifically *act* on these topics was eight persons (full-time staff: internationalization) and fourteen persons (full-time staff: human resources). Equality, on the other hand, institutionally and organizationally speaking, was the province of an unpaid committee made up of non-specialists, supported by a student affairs officer whose job description included acting as a secretary for this committee, among other responsibilities.

As an issue of social and public policy, Hoffman pointed out that, structurally speaking, the university did not employ *anyone* whose primary focal responsibilities qualified them to answer, address, or act on the question: *Do all groups located in Finnish society have access to, or are they, in fact, located in, the faculty ranks, student population, or management structure of this university?* More important was the fact that the university employees who might have occasionally considered these types of questions did not appear to be drawing on extensive experience with, or state-of-the-art knowledge of, what the scholarly literature identifies as the single most important issue regarding inclusive universities: the context of the *community served* (Hurtado, Carter, and Kardia 1998; Kahn and Pavlich 2001). This had been confirmed in Hoffman's follow-up work with the university's equality committee, which involved developing a staff/student survey focused on equality. The initial draft of the survey supplied to Hoffman was not meaningfully connected to the state-of-the-art scholarly literature on equality, higher education, and academic work, and it did not account for nor problematize the relationships between access, participation, and career trajectory. Equality was conceptually unproblematized and empirically not operationalized in terms of state-of-the-art scholarly literature, current European Commission (EC) or university policy, or contemporary management and leadership practices.

In terms of nexus analysis, this observation, if generalizable, underlines an awkward situation, in terms of universities around the world preoccupied with recruitment, selection, promotion, and retention of faculty, staff, and management (who in turn select and credential students). Specifically, if asked—by anyone—if Finland's higher education system has underserved groups in our general population, the answer—at this particular university—is: "We don't know." Further, in terms of a focal interaction order essential to nexus analysis, these observations underline *the absence of an institutional or organizational nexus* in which the actors necessary to problematize this type of question could potentially meet. In other words, teaching, research, and policy referencing equality exist. However, this university does not employ specialists who focus on, can articulate, or who routinely act on the relationship between the backgrounded, unfunded, and unstaffed discourse on equality and the foregrounded, well-funded, fully staffed discourse on human resource practices and internationalization.

Discussion

Using the theoretical and methodological logic of nexus analysis, we have now identified and problematized key *discourses in place* and *cycles of discourse* of our respective research topics. They are socially mediated in recurring *interaction order(s)* in the *sites of engagement* each of us has *zoomed in* and *out* of within our respective research. This, in turn, has allowed us to identify discourses that are ignored and the structural absence of interaction between particular groups within sites, characterized by the absence of engagement. Our analysis implies that alternative approaches to policy exist, and it spotlights the sites of engagement in which those alternatives could be articulated if present challenges were adequately problematized and better understood within the nexuses we identify. Further, by using a transdisciplinary mode of inquiry well outside the range in use by most scholars and policymakers focused on unresolved social challenges in Finland, the relationship between mobilities and migration becomes actionable in terms of policy analysis. While the identification of these focal points (above) and articulating their relationship (below) is only an initial step, it underlines the methodological utility of testing the logic of nexus analysis, as well as its potential in areas where it is not widely used, like higher education studies.

Why the Relationship between Mobilities and Migration Matters

The reason we chose to problematize our topic in a scholarly setting—focused on C. Wright Mills's (1959) formulation in his classic work, *The Sociological Imagination*—was because we found little imagination in the research-policy nexus concerning the topics spotlighted in the four vignettes of our analysis. Our problematization spotlights the limitations of many scholars and policy actors brought into view across our topics, especially those who (1) have no direct experience of contemporary mobilities and/or migration and who (2) know nothing of significance of either (Denzin 1998). The research-policy nexus concerning Finland's current social challenges is of crucial importance, as most persons in Finland's general population have no expertise in these areas. This is the case in many countries. However, what is unique to Finland is the lack of imagination, evolving knowledge, and long-term experience on which viable policy could be based. This is important because of the social, economic, and political challenges currently faced by Finnish society in an era of public financial austerity and the stagnation of a challenged private sector. Both of these are complicated by uncertainty and ambivalence about EU cohesion, in general, and migration issues, in particular. Added to all of this are the increased geopolitical tensions along Finland's eastern border. None of these broad challenges was in dispute in 2016–17, as we authored this analysis.

More specific to our topic, Finland has the oldest working-age population in the EU, and as that part of the workforce retires, Finland has never articulated a clear evidence-based approach to the migration and

mobility challenges raised across our four vignettes. The consequence of not understanding these complexities is "push factors" bearing on precisely the people most needed to directly address the challenges faced by Finnish society. Sometimes, as migration studies show, these two groups are the same. This is also not in dispute as these relationships are better understood in countries, communities, and companies competing for precisely the global talent brought into focus by the mobilities paradigm, as well as studies of the internationalization of higher education, both of which cut across the topics advanced as evidence of our argument. This is the backdrop common to the four sets of studies carried out by the authors and the explanation for why we selected a transdisciplinary mode of inquiry, drawing on four different fields of study or disciplines and focusing on what outwardly might appear to be unrelated topics to anyone but specialists.

Lost in Translation—and on Policymakers and Scholars

Our policy analysis illuminates several key distinctions lost on many in the research-policy nexus in Finland, especially those structurally disconnected—as indicated across our analysis—from a population that is changing more rapidly than those who mediate policy. By "lost," we mean that these distinctions are often unclear, confused, conflated, and used without conceptual precision. In scholarship and policymaking, this lack of theoretical or conceptual grounding renders analysis of data— or "evidence"—meaningless. The most important of these distinctions are as follows:

Policy Research versus Policy Analysis. An example of a good time for conventional policy research is indicated when the researching of issues is not widely contested, such as when universities publish the numbers of bachelor or master's degrees per year, as defined by the Bologna Process reforms. Those numbers and any action based on them is what we term *policy-based evidence*. Policy analysis, as advanced by Wildavsky (1987), on the other hand, is needed when contrasting alternative approaches to policy issues that are not yet understood, such as the relationship between migration and mobilities in Finland.

In other words, when thinking about degree numbers, the evidence defined by policy exists and is clear. However, when thinking about migration challenges within Finnish society, the lack of compelling evidence across our vignettes spotlights the need for contrasting conceptually problematized, empirically grounded alternatives, within the sites of engagement brought into focus in our vignettes. The policy "trap" that many fall into when dealing with complex topics is confusing *policy assumptions*, which are grounded in clear rationale, with theoretically unproblematized and empirically ungrounded *normative assumptions*. The latter are often only biased assumptions of some variety (cultural, political, religious, and so on) that may—or may not—be backed up by valid data and rigorous analysis. While it can be argued that existing policy needs to be revisited

in terms of considering alternatives, the four vignettes in our analysis are characterized by the unlikelihood that alternatives *were*, *will be*, or *are being* considered. In addition, the evidence base for both scholarship and policymaking is fairly narrow, as indicated in our opening problematization of this field, and remains so in the sites of engagement illuminated across our vignettes.

Getting Traction on Contemporary Contested Complexity. Our analysis puts a spotlight on four key focal points that we regard as essential to gaining better evidence-based understanding of the demographically driven social challenges faced by Finnish society. These include the following:

- Mobilities (Urry 2007), which offers a paradigmatic approach to the era in which we now live. As such, this implicates humankind, in general, as no person on the planet falls outside the scope of this paradigm.
- Migration, which involves well-documented dynamic patterns of human movement within and across the regions and countries of the globe involving millions and which entails complex mobilities.
- The internationalization of higher education, which involves distinct forms of mobilities and sometimes migration.
- The migration of refugees and asylum-seekers, an established focal point of migration studies relevant to several forms of complex mobility.

These distinctions spotlight especially the least mobile, in terms of the most important forms of mobility, specifically social and intergenerational mobility. As we wrote this text, commentators across the political spectrum agreed that both the UK's Brexit vote, as well as the US Presidential Election were "won" by groups whose identity is shaped by a perceived or experienced loss or lack of social mobility, over generations, and who felt threatened from groups, especially "immigrants" and (highly mobile) political elites (Cillizza 2016). The point of our use of the four outlined focal points is that the theory and major concepts in use are needed to contextualize and understand social challenges we are faced with when analyzing our topics, in empirical terms. This becomes even more important when communicating the relevance of our findings to policymakers. The main challenge we encounter across the vignettes is not a lack of appreciation for complexity within specific settings and situations. All persons we have encountered during our research agree that tackling the types of challenges brought into view in our paper are complex. What is absent, however, most often because of *non-interaction* and a *lack of engagement* within specific sites is the fact that *complexity is contested* in very important ways that defy simplification from narrow perspectives. The four key focal points explain, in part, the reasons for contestation, especially when the relation between terms is unclear, confused, or conflated. What remains is whether policymakers detect and

effectively engage contested complexity or remain baffled. Readers will probably have seen this play out in both the UK and the US, as this article is finalized. "Immigration," the term that caught our eye in the initial conference where we met, is interesting in the sense of a "discourse in place" that clearly mediates action in scholarship, policymaking, and, especially, the media. That said, it is not on our list for the same reason it is not typically used by the International Organization for Migration. Specifically, the term assumes both a single direction and a final result that is not born out in enough cases to make it meaningful regarding the topics our analysis brings into view. What we would propose, based on our argument and evidence, is unremarkable but comes into view with an untypical mode of inquiry: nexus analysis. Specifically, better questions are clearly possible when researchers rely on conceptual precision and better evidence, which by definition means better policies and—ultimately—the positive change hoped for by policymakers and the society they serve.

The single best policy question starkly illuminated by the mobilities paradigm is not "managing the floods of migrants coming to Finland," but rather "how to keep floods of migrants from leaving Finland." The moment a highly skilled professional leaves Finland, they enter patterns of mobilities and migration well outside the assumption-laden focus of scholars and policymakers narrowly focused on "immigration." Even for those migrants arriving in Finland who temporarily enter the "immigrant" discourse in place, it is clear that many never arrive with the intention to stay. Those categorized as citizens or residents with an "immigrant background" may opt, at any time, to move onward, to countries, communities, and companies where it is well understood that they need mobile talent a lot more than mobile talent needs them. Finland, as a society, is not one of these countries. While some small groups might contest that, this defines several unresolved dilemmas and paradoxes faced by policymakers (Hoffman et al. 2015, 2016).

Conclusions

Within the sites of engagement our vignettes are focused on, we detail structural pressure and push factors that underline the stark realities of Finland's unsustainable dependency ratio as the post-war baby-boom generation retires and gradually fills expensive, publicly funded residential facilities and stretches the limits of a publicly funded healthcare system. The long-term, generational, focal framing of the mobilities paradigm instantly highlights a stark choice for highly skilled mobile talent: "Why stay?" This question is acute within the structural nexuses highlighted across our vignettes. Our analysis of policy outcomes bearing on mobilities and migration in sites within institutions, organizations, and professions ranges from benign misunderstanding of the most important needs of highly skilled mobile professionals (Aarnikoivu); continuous neglect of key issues and dynamics (Korhonen); obstructionist gatekeeping by professional communities (Habti); and the failure to ask critical questions

uniquely suited to higher education (Hoffman.) Over *generations*—a key time-scale missed in neoliberal short-term, top-down, non-inclusive policymaking—the consequences of "getting policy decisions wrong" becomes clear. Regarding the vignettes that are the evidence of our argument, it is worth noting that the people brought into view are focused on long-term consequences of decisions, especially where social mobility is concerned, and the intergenerational mobility of those closest to them. This should come as no surprise to scholars or policymakers. What is more surprising is policy processes that disregard this.

References

Aarnikoivu, Melina. 2016. "'Not in My Backyard but in My Front Room': A Review of Insider Ethnography." *Tiedepolitiikka* 41 (3): 47–56.

———. In progress. "Constructing the Doctoral Identity through Discourse as Social Action: A Nexus Analysis Approach." Doctoral dissertation. Centre for Applied Language Studies. Jyväskylä: University of Jyväskylä.

Ackers, Louise. 2004. "Managing Relationships in Peripatetic Careers: Scientific Mobility in the European Union." *Women's Studies International Forum* 27 (3): 189–201.

Alvesson, Mats. 2003. "Methodology for Close Up Studies: Struggling with Closeness and Closure." *Higher Education* 46 (2): 167–93.

Archer, Margaret. 1995. *Realist Social Theory: The Morphogenetic Approach*. Cambridge: Cambridge University Press.

Baker, Vicky L., and Lisa R. Lattuca. 2010. "Developmental Networks and Learning: Toward an Interdisciplinary Perspective on Identity Development during Doctoral Study." *Studies in Higher Education* 35 (7): 807–27.

Batalova, Jeanne, and Lindsay Lowell. 2007. "Immigrant Professionals in the United States." *Society* 44 (2): 26–31.

Beaverstock, Jonathan V. 2005. "Transnational Elites in the City: British Highly Skilled Inter-Company Transferees in New York City's Financial District." *Journal of Ethnic and Migration Studies* 31 (2): 245–68.

Birnbaum, Robert. 2000. *Management Fads in Higher Education: Where They Come From, What They Do, Why They Fail*. San Francisco: Jossey Bass.

Black, Richard, and Saskia Gent. 2006. "Sustainable Return in Post-Conflict Contexts." *International Migration* 44 (3): 15–38.

Bourdieu, Pierre. 1986. "The Forms of Capital." In *Handbook of Theory and Research for the Sociology of Education*, edited by John Richardson, 241–58. New York: Greenwood.

———. 1989. "Social Space and Symbolic Power." *Sociological Theory* 7 (1): 14–25.

———. 1990. *In Other Words*. Stanford: Stanford University Press.

Bradley, Megan. 2008. "Back to Basics: The Conditions of Just Refugee Returns." *Journal of Refugee Studies* 21 (3): 285–304.

Cantwell, Brendan, and Ilkka Kauppinen, eds. 2014. *Academic Capitalism in the Age of Globalization*. Baltimore: Johns Hopkins University Press.

Castells, Manuel. 2000. *The Rise of the Network Society,* 2nd ed. Oxford: Blackwell.

Cerna, Lucie. 2010. "Policies and Practices of Highly Skilled Migration in Times of the Economic Crisis". International Migration Papers 99. Geneva: International Labour Organization. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---migrant/documents/publication/wcms_179666.pdf.

Cillizza, Chris. 2016. "The Remarkable Parallels between the Brexit Vote and the Rise of Donald Trump." *Washington Post* June 24, 2016. www.washingtonpost.com/news/the-fix/wp/2016/06/24/the-remarkable-parallels-between-the-brexit-vote-and-the-rise-of-donald-trump/?utm_term=.51b61194e87d.

Cooklin, Amanda R., Elizabeth Westrupp, Lyndall Strazdins, Rebecca Giallo, Angela Martin, and Jan Nicholson. 2014. "Fathers at Work: Work-Family Conflict, Work-Family Enrichment and Parenting in an Australian Cohort." *Journal of Family Issues* 37 (11): 1611–35.

Correa-Velez, Ignacio, Sandra M. Gifford, and Adrian G. Barnett. 2010. "Longing to Belong: Social Inclusion and Well-being among Youth with Refugee Backgrounds in the First Three Years in Melbourne, Australia." *Social Science & Medicine* 71 (8): 1399–1408.

Cresswell, Tim. 2010. "Toward a Politics of Mobility." *Environment and Planning D: Society and Space* 28 (1): 17–31.

Currie, Jan, and Janice Newson, eds. 1998. *Universities and Globalization: Critical Perspectives*. Thousand Oaks: Sage.

Denzin, Norman. 1998. "The Art and Politics of Interpretation." In *Collecting and Interpreting Qualitative Materials,* edited by Norman Denzin and Yvonna Lincoln, 313–44. Thousand Oaks: Sage.

Eastmond, Marita. 2006. "Transnational Returns and Reconstruction in Post-War Bosnia and Herzegovina." *International Migration* 44 (3): 141–66.

Favell, Adrian, Miriam Feldblum, and Michael P. Smith. 2007. "The Human Face of Global Mobility: A Research Agenda." *Transaction Social Science and Modern Society* 44 (2): 15–25.

Findlay, Allan M., David McCollum, Rory Coulter, and Vernon Gayle. 2015. "New Mobilities across the Life Course: A Framework for Analyzing Demographically Linked Drivers of Migration." *Population, Space and Place* 21: 390–402.

Finlay, Juli L., Rod A. Crutcher, and Neil Drummond. 2011. "'Garang's Seeds': Influences on the Return of Sudanese-Canadian Refugee Physicians to Post-Conflict South Sudan." *Journal of Refugee Studies* 24 (1): 187–206.

Fox, Mary F., Carolyn Fonseca, and Jinghui Bao. 2011. "Work and Family Conflict in Academic Science: Patterns and Predictors among Women and Men in Research Universities." *Social Studies of Science* 41 (5): 715–35.

Guth, Jessica. 2008. "The Opening of Borders and Scientific Mobility: The Impact of EU Enlargement on the Movement of Early Career Scientists." *Higher Education in Europe*, 33 (4): 395–410.

Habti, Driss. 2010. "The Bologna Process and the Economic Impacts of Research and Development within the Context of Europeanization: The Case of Finland." *European Educational Research Journal* 9 (1): 92–104.

———. 2012. "Highly Skilled Mobility and Migration from MENA Region to Finland: A Socio-Analytical Approach." Dissertation in Social Sciences and Business Studies, University of Eastern Finland.

———. 2014. "Spatialities of Work and Home in a Dual-Career Context of Highly Skilled Arab Women in Finland." *Journal of Finnish Studies* 17 (1&2): 92–125.

———. 2018. "Mapping Drivers of Arab Highly Skilled Self-Initiated Expatriation to Finland: Personal-Professional Life Pendulum." In *Global Mobility of Highly Skilled People*, edited by Driss Habti and Maria Elo, 107–45. Cham, Switzerland: Springer.

Habti, Driss, and Maria Elo. 2018. "Rethinking Self-Initiated Expatriation in International Highly Skilled Migration." In *Global Mobility of Highly Skilled People*, edited by Driss Habti and Maria Elo, 1–37. Cham, Switzerland: Springer.

Habti, Driss, and Saara Koikkalainen. 2014. "Introduction" In *International Highly Skilled Migration: The Case of Finland*, edited by Driss Habti and Saara Koikkalainen. *Journal of Finnish Studies* 17 (1&2): 3–17.

Hannam, Kevin, Mimi Sheller, and John Urry. 2006. "Editorial: Mobilities, Immobilities and Moorings." *Mobilities* 1 (1): 1–22.

Harvey, Joanna. 2006. "Return Dynamics in Bosnia and Croatia: A Comparative Analysis." *International Migration* 44 (3): 89–144.

Hautaniemi, Petri, Marko Juntunen, and Mariko Sato. 2013. *Return Migration and Vulnerability: Case Studies from Somaliland and Iraqi Kurdistan*. Development Studies, Department of Political and Economic Studies, Faculty of Social Sciences, University of Helsinki. Helsinki: Interkont Books.

Hoffman, David. 2007. "The Career Potential of Migrant Scholars in Finnish Higher Education: Emerging Perspectives and Dynamics." Doctoral dissertation. Jyväskylä Studies in Education, Psychology and Social Research 318. Jyväskylä: Jyväskylä University Press.

———. 2015. "The Competitive Horizons of University Personnel in the 21st Century: The Interplay Between Culture, Structure and Agency within Mobility, Migration and the Internationalization of Higher Education." Invited paper presented at the conference Rethinking

Internationalisation in Higher Education: Methodological and Conceptual Challenges, Newcastle, May 2015.

Hoffman, David, Driss Habti, Sirpa Korhonen, and Melina Aarnikoivu. 2016. "The Key Dilemmas of Migration and Misrecognized Multidimensional Mobilities." Paper presented at Sociology Days, Jyväskylä, March 25, 2016.

Hoffman, David, Paula Mählck, Amy Scott Metcalfe, Blanca Torres-Olave, and Agnete Vabø. 2014. "The Disconnects Between Policy, Scholarship and the 'International' 'Mobility' Myths of the 21st Century." Roundtable discussion at the Annual Conference of the Association for the Study of Higher Education, Washington, DC, December 2014.

Hoffman, David, Sari Pöyhönen, Carine Cools, Anatoly Stikhin, Driss Habti, Taru Siekkinen, and Thomas Sama. 2013. "Aspiration, Achievement and Abandonment in 'the World's Best Country': Merit and Equity or Smoke and Mirrors?" A contritution at the symposium Global Relations Re-Cast in the Nordic Context: Academic Mobility and Career Development of Academic Staff, Ph.D. Graduates and Students in Sweden, Norway and Finland" at the Annual Conference of the Society for Research on Higher Education, Cardiff, Wales, December 2013.

———. 2015. "Aspiration, Achievement and Abandonment in 'The World's Best Country': Merit and Equity or Smoke and Mirrors?" *Coolabah* 17. Australian Studies Centre, Universitat de Barcelona, 1–76.

Hoffman, David, and Jussi Välimaa, eds. 2016. *Re-Becoming Universities?: Higher Education Institutions in Networked Knowledge Societies*. The Changing Academy: The Changing Academic Profession in International Comparative Perspective 15. Dordrecht: Springer.

Hopwood, Nick. 2010. "A Sociocultural View of Doctoral Students' Relationships and Agency." *Studies in Continuing Education* 33 (2): 103–17.

Hurtado, Sylvia, Deborah F. Carter, and Diana Kardia. 1998. "The Climate for Diversity: Key Issues for Institutional Self Study." *New Directions for Institutional Research* 98: 53–63.

Huttunen, Laura. 2010. "Sedentary Policies and Transnational Relations: A 'Non-Sustainable' Case of Return to Bosnia." *Journal of Refugee Studies* 23 (1): 41–61.

International Organization for Migration. "Assisted Voluntary Return and Reintegration (AVRR) in the EU" [online publication]. http://publications.iom.int/bookstore/free/avrr_in_the_eu.pdf. Accessed May 26, 2016.

Jaakkola, Magdalena. 2005. *The Attitudes of Finns toward Immigrants in 1987–2003*. Labor Policy Studies 286. Helsinki: Finnish Ministry of Labor. (English Summary).

Kahn, Sharon E., and Dennis Pavlich. 2001. *Academic Freedom and the Inclusive University*. Vancouver: University of British Columbia Press.

Kallo, Johanna. 2009. *OECD Education Policy: A Comparative and Historical Study Focusing on the Thematic Reviews of Tertiary Education.* [Jyväskylä]: Finnish Educational Research Association.

Kauppinen, Ilkka. 2012. "Toward Transnational Academic Capitalism." *Higher Education* 64: 543–56.

Käyhkö, Katinka, Ilona Bontenbal, and Minna Bogdanoff, eds. 2016. *"Open the Doors!"* Proceedings from the Migrants in Higher Education: Fostering Cooperation at Universities Seminar. Finnish University Partnership for International Development (UniPID). Jyväskylä: University of Jyväskylä.

Kibreab, Gaim. 2003. "Citizenship Rights and Repatriation of Refugees." *The International Migration Review* 37 (1): 24–73.

Kogan, Maurice, and Ulrich Teichler. 2007. "Key Challenges to Academic Profession and Its Interface with Management: Some Introductory Thoughts." In *Key Challenges to the Academic Profession*, edited by Maurice Kogan and Ulrich Teichler, 9–15. Kassel: International Center for Higher Education Research Kassel.

Korhonen, Sirpa. In progress. "Positions in Transition: A Biographical-Narrative Study of Refugees Returning to Their Country of Origin." Doctoral dissertation. Department of Language and Communication Studies. Jyväskylä: University of Jyväskylä.

Kosmützky, Anna, and Terhi Nokkala. 2014. "Challenges and Trends in Comparative Higher Education." *Higher Education* 67 (4): 369–80.

Kõu, Anu, Leonardus van Wissen, Jouke van Dijk, and Ajay Bailey. 2015. "A Life Course Approach to High-Skilled Migration: Lived Experiences of Indians in the Netherlands." *Journal of Ethnic and Migration Studies* 41 (10): 1644–63.

Lochhead, Clarence. 2003. *The Transition Penalty: Unemployment among Recent Immigrants to Canada*. Working Paper. Ottawa: Canadian Labor and Business Center.

Lowell, Lindsay. 2008. "Highly Skilled Migration." In *World Migration 2008: Managing Labour Mobility in the Evolving Global Economy*, edited by Gervais Appave and Ryszard Cholewinski [and collaborators], 51–76. Geneva: International Organization for Migration. https://publications.iom.int/system/files/pdf/wmr_1.pdf.

Mantai, Lilia, and Robyn Dowling. 2015. "Supporting the PhD Journey: Insights from Acknowledgements." *International Journal for Researcher Development* 6 (2): 106–21.

Marginson, Simon. 2006. "Putting 'Public' Back into the Public University." *Thesis Eleven* 84 (1): 44–59.

Marginson, Simon, Peter Murphy, and Michael A. Peters. 2009. *Global Creation: Space, Mobility, and Synchrony in the Age of the Knowledge Economy.* New York: Peter Lang.

Marginson, Simon, and Marijk van der Wende. 2007. *Globalisation and Higher Education.* OECD Education Working Papers 8. Paris: Organization for Economic Cooperation and Development.

McAlpine, Lynn, Marian Jazvac-Martek, and Nick Hopwood. 2009. "Doctoral Student Experience in Education: Activities and Difficulties Influencing Identity Development." *International Journal for Researcher Development* 1(1): 97–109.

Mills, Charles W. 1959. *The Sociological Imagination*. New York: Oxford University Press.

Muggeridge, Helen, and Giorgio Doná. 2006. "Back Home? Refugees' Experiences of Their First Visit Back to Their Country of Origin." *Journal of Refugee Studies* 19 (4): 415–32.

Neiterman, Elena, and Ivy Bourgeault. 2012. "Conceptualizing Professional Diaspora: International Medical Graduates in Canada." *Journal of International Migration and Integration* 13 (1): 39–57.

OECD. 2008. *The Global Competition for Talent: Mobility of the Highly Skilled*. Paris: Organization for Economic Cooperation and Development.

Oliver, Elizabeth A. 2009. "Promoting Women? Lessons Learned from a Study of Mobility and Fixed Term Work in Early Career Researchers." In *Gender and Migration in 21st Century Europe*, edited by Helen Stalford, Samantha Velluti, and Samantha Currie, 63–85. Aldershot: Ashgate.

———. 2012. "Living Flexibly? How Europe's Science Researchers Manage Mobility, Fixed-Term Employment and Life Outside of Work." *International Journal of Human Resource Management* 23 (18): 3856–71.

Pashby, Karen. 2015. "Ethical Internationalization in Higher Education in Times of Global Crises." Conference keynote presented at Rethinking Internationalization Seminar, Newcastle, May 14, 2015.

Pusser, Brian, Ken Kempner, Simon Marginson, and Imanol Ordorika, eds. 2012. *Universities and the Public Sphere: Knowledge Creation and State Building in the Era of Globalization*. New York: Routledge.

Rhoades, Gary, and Sheila Slaughter. 2004. *Academic Capitalism and the New Economy: Markets, State, and Higher Education*. Baltimore: Johns Hopkins University Press.

Ryan, Louise. 2015. "Friendship-making: Exploring Network Formations through the Narratives of Irish Highly Qualified Migrants in Britain." *Journal of Ethnic and Migration Studies* 41 (10): 1664–83.

Saxenian, Annalee. 2006. *The New Argonauts: Regional Advantage in a Global Economy*. Cambridge, MA: Harvard University Press.

Scollon, Ron, and Suzie Wong Scollon. 2004. *Nexus Analysis: Discourse and the Emerging Internet*. London: Routledge.

Sheller, Mimi, and John Urry. 2006. "The New Mobilities Paradigm." *Environment and Planning A: Economy and Space* 38 (2): 207–26.

Slaughter, Sheila, and Brendan Cantwell. 2012. "Transatlantic Moves to the Market: The United States and the European Union." *Higher Education* 63 (5): 583–606.

Slaughter, Sheila, and Larry L. Leslie. 1997. *Academic Capitalism: Politics, Policies, and the Entrepreneurial University*. Baltimore: Johns Hopkins University Press.

Smith, Michael. P., and Adrian Favell, eds. 2006. *The Human Face of Global Mobility (Comparative Urban and Community Research)*. New Brunswick: Transaction Publishers.

Steyn, Melissa E., and Terri Grant. 2007. "'A Real Bag of Mixed Emotions': Re-Entry Experiences of South African Exiles." *International Journal of Intercultural Relations* 31 (3): 363–89.

Szkudlarek, Betina. 2010. "Reentry: A Review of the Literature." *International Journal of Intercultural Relations* 34 (1): 1–21.

Teichler, Ulrich. 2004. "The Changing Debate on Internationalization of Higher Education." *Higher Education* 48 (1): 5–26.

Tremblay, Karine. 2004. "Links between Academic Mobility and Migration." Research paper presented at Symposium on International Labor and Academic Mobility, Toronto, October 22, 2004.

Trondal, Jarle, Åse Gornitzka, and Magnus Gulbrandsen. 2003. "Conceptual Lens." In *Internationalization of Research and Higher Education*, edited by Åse Gornitzka, Magnus Gulbrandsen, and Jarle Trondal, 16–35. Oslo: Norwegian Institute for Studies in Research and Higher Education.

Urry, John. 2007. *Mobilities*. Cambridge: Polity Press.

Veugelers, Reinhilde, and Linda Van Bouwel. 2015. "The Effects of International Mobility on European Researchers: Comparing Intra-EU and U.S. Mobility." *Research in Higher Education* 56 (4): 360–77.

Ward, Kelly, and Lisa Wolf-Wendel. 2012. *Academic Motherhood: How Faculty Manage Work and Family*. New Brunswick: Rutgers University Press.

Waters, Johanna L. 2008. *Education, Migration, and Cultural Capital in the Chinese Diaspora: Transnational Students between Hong Kong and Canada*. Amherst, NY: Cambria Press.

Weiss, Anja. 2005. "The Transnationalisation of Social Inequality: Conceptualizing Social Positions on a World Scale." *Current Sociology* 53 (4): 707–28.

———. 2006. "Comparative Research on Highly Skilled Migrants: Can Qualitative Interviews Be Used in Order to Reconstruct a Class Position?'" *Forum: Qualitative Social Research* 7 (3), art. 2.

Wildavsky, Aaron. B. 1987. *Speaking Truth to Power: The Art and Craft of Policy Analysis*. New Brunswick: Transaction Books.

Wingens, Matthias, Michael Windzio, Helga de Valk, and Can Aybeck. 2011. *A Life Course Perspective on Migration and Integration*. Dordrecht: Springer.

Wright, Toni. 2003. "Postgraduate Research Students: People in Context?" *British Journal of Guidance and Counselling* 31 (2): 209–27.

Xiang, Biao. 2003. "Emigration from China: A Sending Country's Perspective." *International Migration* 41 (3): 21–48.