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KNOWLEDGE AND AGENCY IN VOCATIONAL EDUCATION

**AN ANALYSIS OF COMPETENCY-BASED TRAINING
AND STUDENT COUNSELLING UTILISING A LENS
OF CRITICAL REALISM TO CULTURAL HISTORICAL
ACTIVITY THEORY**

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Doctoral thesis

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Knowledge and Agency in Vocational Education

An analysis of competency-based training and student counselling utilising a lens of critical realism to cultural historical activity theory

ABSTRACT

Relational agency is a knowledge-laden but not knowing-determined concept derived from cultural historical activity theory, characterising social and collaborative activity and work as being object-related. Objects in the world exist independently of the human mind. Through our engagement with the world, we can attribute meaning to them via our capacity for reasoning. The premise of critical realism's depth ontology is that our knowledge about the world is fallible. However, we can still theorise about objects in the social and natural worlds (world before word). Knowledge, hence, is based on beliefs for which we continuously must seek justification. Justification of knowledge relates to the fundamental idea of education, which is inquiry for truth. Prior research has shown that competency-based training (CBT) is not only a weak informer of learning but is based on in-action assessment, ignoring what is not practical and the non-observable. The CBT reform to vocational education and training (VET) generates a twofold problem: a tension between relational agency and techno-economic rationality (adjusting means to ends), and it enhances confusion about the difference between knowledge and knowing (what works in practice). Justification of knowledge in VET based on CBT is both unclear and problematic.

My aim with this thesis is to analyse observed events in relational practices in competency-based VET to theorise about the premises for learning and spheres of relational agency in relation to the justification of knowledge. In VET, the importance of student counselling as a support for learning grew stronger due to the competency-based training reform and the emphasis on individualised study. The research questions address how the premises for relational agency and conceptualisation of learning are created through counselling activity and how knowledge is justified in competency-based VET. The thesis summarises three sub-studies which are based on design-research approaches. The sub-studies operationalise relational practices through student counselling in VET in Finland within an ethnographic methodology. Participatory observations of counselling opportunities (N=32) and interviews with counselling professionals (N=12) from two VET institutions in Finland yielded qualitative text data supported by publicly available policy documents on VET. The analysis of three sub-studies used abductive methods. The results from the sub-studies were published in three

peer reviewed journals. A theoretical reflection of the results from the sub-studies is presented in this thesis.

Results from the first sub-study demonstrate that commitment to responsibility for jointly agreed-upon actions was conflicted with the increasingly blurred focus on outcomes, splintered in fragments of measurable targets. The knowledge-laden relational agency needed in counselling and work-based situations that students must be educated for gained dubious resonance in the strictly defined managerial approach. The latter adhere to accountability structures, showing quality outwards while depleting relational learning processes inwards.

The second sub-study indicates assumptions of social engineering and calculated competency units in a 'Competency-Tetris' framework, occasionally rejecting relationships and community as important life domains in VET ensuring that students learn how to work together in the world. Learning became biased by social inequalities and a focus on instrumental abilities, viz., the 'go-forward-engine.' In succession, the concept of equal learning for all students made a U-turn as CBT's commercial significance and economic mobility consolidated the grip on VET. Consequently, orthodox human capital theory confuses relational object motives like social generosity with the rationalisation of outcomes.

The third sub-study explores how actual needs and individualised goals differ. Student counselling was skewed to focus on individualised goals while recognition of human uniqueness and students as people is needed. Technical rationality cannot inform wise deliberation and responsible actions in different situations; the knowledge-laden portrayer and conceptualiser of objects, which students and professionals together could relate to, vanishes. What could not gain resonance as direct and demonstrable competency was ignored. That is, 'the grey zone' where the tension between the use value and exchange value of object extends between regulation-producing and student counselling activity systems.

Theoretical reflection shows the revitalisation of Dewey's transactional theory of knowing through CBT which fails. The revitalisation fails because of the problematic aggregation of fragmented bits of knowing, attached to educational accountability based on speculation of future prosperity. This reminds us of how experiential approaches to knowing differ from realist perceptions of justified knowledge. Justification of knowledge becomes inaccurate as students' epistemic access to systems of meaning gets restricted, leading to social reproduction. CBT detaches the depth-ontology of social and material worlds from how we can make sense of their objects and ignores our need to form confidence and trust in each other in ways beyond techno-economic rationality. Hence, the ego-centred rationality mistake is becoming the normative policy approach based on the pretence of how the world is: diminishing the significance of relational agency in VET as a form of wise deliberation and thoughtful action. This makes VET's affordances both less educational and less vocational at the same time.

Keywords: object-related, professionalism, economisation, technical rationality, techno-economic rationality, skills, abilities, accountability

Kunskap och aktörskap inom yrkesutbildningen

En analys av kompetensbaserad och handledning genom kritisk realism och kulturhistorisk verksamhetsteori

ABSTRAKT

Härlett från kulturhistorisk verksamhetsteori är relationellt aktörskap ett begrepp som karakteriserar samarbete som objektorienterat. Genom våra interaktioner med världen kan vi tillskriva mening till objekt som existerar oberoende oss. Med andra ord, vi kan ha kunskap om världens objekt. Djup-ontologin inom kritisk realism håller vår kunskap som falsifierbar. Trots det kan vi teoretisera om sociala och materiella världar, och vi har att söka rättfärdiga vår kunskap om dem. Därför är relationellt aktörskap ett kunskapslett men inte vetande-determinerat begrepp. Det här anknyter till de fundamentala idéerna om utbildning, som är sökandet av sanning. Yrkesutbildningen i Finland har under de senaste decennierna reformerats till att vara baserad på 'kunnande', vilket i en internationell förståelse är samma sak som kompetensbaserad. Tidigare forskning visar att kompetens utgör ett vagt koncept för lärande. Kompetens definieras av vad som anses fungera i praktiken och påvisas genom bedömning av 'autentiskt' arbete, varvid icke-observerbara fenomen ignoreras. Detta skapar ett tvådelat problem: en spänning mellan relationellt aktörskap och teknoeconomisk rationalitet (anpassning av medel till mål), och utsuddade skillnader mellan kunskap och att kunna (veta vad som fungerar i praktiken). Rättfärdigandet av kunskap inom kompetensbaserad yrkesutbildning är både problematiskt och oklart.

Syftet med den här doktorsavhandlingen är att analysera premisser för lärande och sfärer av relationellt aktörskap i anslutning till rättfärdigandet av kunskap. Studerandehandledning är en relationellt samarbetande och mellanmänsklig praktik. Behovet och utbudet av studerandehandledning inom yrkesutbildningen ökade genom kompetensbaserad reformer där fokus riktats mot individualisering och resultat. Forskningsfrågorna berör förutsättningarna för relationellt aktörskap och konceptualisering av lärande skapat genom handledning, och hur kunskap rättfärdigas inom den kompetensbaserade yrkesutbildningen. I forskningens tre delstudier tillämpas en designbaserad metod, som operationaliserar relationell praktik genom studerandehandledning inom yrkesutbildning i Finland. Delstudierna baseras på etnografiska fältstudier av studerandehandledningstillfällen (N=32) och intervjuer med handledare (N=12). De kvalitativa textdata som producerats kompletterades med policydokument om yrkesutbildningen. Resultaten från delstudierna har publicerats i vetenskapliga tidskrifter. I den här avhandlingen reflekteras resultaten från delstudierna teoretiskt.

Den första delstudiens resultat vittnar om en rationalisering av individuellt agerande med fokus på resultat som blivit splittrat i fragment av mätbarheter,

där ansvar för relationell handling inte längre är centralt. Kunskap som behövs i handledning och olika situationer som studerande ska utbildas för fick en tvivelaktig resonans i strikt definierade kvalitetsmodeller. Strukturer av resultatansvar kunde visa uppmätt kvalitet utåt samtidigt som relationella lärandeprocesser utarmas inåt.

Den andra delstudien indikerar antaganden om social ingenjörskonst och kalkylerandet av kompetensdelar i en 'Kompetens-Tetris'-förståelseram, som ibland avvisade relationella gemenskaper som viktiga livsdomäner som kunde säkerställa att yrkesstuderande lär sig att arbeta tillsammans i världen. I stället fick lärandet ett ensidigt fokus mot instrumentella färdigheter, driven av social ojämlikhet i vad som beskrevs som en 'gå-vidare motor'. Konceptet om lika lärande för alla studerande gör en helsväng medan kommersiell signifikans och förhoppningar om ekonomisk mobilitet runt kompetens och kvalifikation konsoliderar greppet om yrkesutbildningen. Ortodoxa synsätt på mänskligt kapital förvirrar relationella objektmotiv som social generositet, värdighet och ömsesidig respekt med rationalisering baserat på ekonomiskt mätbara resultat.

Den tredje delstudien undersöker hur faktiska behov och individualiserade mål skiljer sig åt. Handledning förvrängdes att fokusera på individualiserade mål medan erkännande av unik mänsklighet och studerande som personer behövs. När det krävdes omdöme, kloka överläggande och ansvarsfull handling i olika situationer, framhölls betydelsen av en kunskapsledd gestaltning av gemensamma objekt som studerande och professionella tillsammans kan relatera till. Teknisk rationalitet gör att sådana objekt försvinner ur sikte. Vad som inte får resonans med direkt och påvisbar kompetens ignoreras. Detta är 'den grå zonen' som leder till en utvidgad kontradiktion mellan regel- och administrationsproducerande verksamhetssystem och den samarbetande handledningens verksamhetssystem.

Teoretisk reflektion av delstudierna visar att kompetensbaseringsens aggregation av 'bitar av kunnande' söker förklaras genom en misslyckad vitalisering av Deweys upplevelserelaterade teorier. Här accentueras skillnaden mellan kunskap och kunnande. Rättfärdigandet av kunskap inom yrkesutbildningen blir suddigt när studerandes epistemiska tillgång till generella meningssystem begränsas, vilket leder till förminskat aktörskap och social reproduktion. Djup-ontologin i sociala och materiella världar lösgörs från tanken om hur vi kan förstå dem och hur vi kan ha förtroende för varandra bortom tekno-ekonomisk rationalitet. Det egocentrerade rationalitetsmisstaget används som ett normativt politiskt tillvägagångssätt baserat på en snäv bild av ur världen är. Yrkesutbildningen blir mindre bildande och mindre yrkesinriktad på samma gång.

Nyckelord: relationellt aktörskap, objektrelaterad, professionalitet, ekonomisering, teknisk rationalitet, kompetens, färdigheter, resultatansvar

Tieto ja toimijuus ammatillisessa koulutuksessa

Osaamisperusteisuuden ja opiskelijaohjauksen analyysi kriittiseen realismiin ja kulttuurihistorialliseen toiminnan teoriaan nojaten

TIIVISTELMÄ

Relationaalisen toimijuuden käsite paikantuu kulttuurihistoriallisen toiminnan teoriaan, jonka avulla ihmisten yhteistoiminta hahmottuu kohteisiin orientoituna. Toiminnan kohde on inhimillisen yhteistoiminnan hahmottama asia tai ilmiö, johon voidaan liittää tiedollinen merkitys. Kriittisen realismin lähtökohta on, että totuus maailmasta muotoutuu kerroksista, joita emme täysin voi ymmärtää. Totuutta voidaan silti teoretisoida, ja teorit voivat olla väärässä. Totuuden etsiminen pitää siksi oikeuttaa osaksi tietoa. Tämä liittyy kaiken koulutuksen perimmäiseen tarkoitukseen, joka on totuuden etsiminen. Tästä syystä relationaalinen toimijuus jäsentyy tietoon perustuvaksi, ei tietämisen määrittelemäksi. Ammatillista koulutusta on viime vuosikymmeninä muutettu kohti osaamisperusteisuutta. Aiempi tutkimus osoittaa, että osaamisperusteisuus kytkeytyy heikosti oppimiseen. Kun käytännön työsuoritusten arviointi korostuu, tietyt empiirisesti havaittavissa olevat asiat huomioidaan, muita ilmiötä ei. Tämä luo jännitteen teknistaloudellisen rationaalisuuden (keinojen mukauttamista päämääriin) ja relationaalisen toimijuuden välille, ja hämärtää tiedon ja osaamisen eroja. Tiedon oikeutus jää ammatillisessa koulutuksessa epäselväksi.

Tutkimuksen tarkoitus on analysoida relationaalisia käytänteitä ja teoretisoida oppimisen edellytyksiä ja toimijuutta suhteessa tiedon oikeutukseen. Opiskelijaohjauksen rooli korostui osaamisperusteisuuden ja yksilöllistämisen vahvistumisen myötä. Tutkimuskysymykset käsittelevät sitä, miten opiskelijaohjauksen käytännöissä käsitteellistetään relationaalista toimijuutta ja oppimista, ja miten tietoa oikeutetaan osaamisperusteisessa ammatillisessa koulutuksessa. Väitöskirja koostuu yhteenvedosta ja kolmesta osatutkimuksesta. Osatutkimukset perustuvat design-based-tutkimukseen. Aineisto on tuotettu etnografisesti opiskelijaohjauksen tapaamisissa ja ryhmätilanteissa (N=32) ja ohjauksen ammattilaisten haastatteluissa (N=12). Lisäksi aineisto täydennetään koulutuspoliittisilla dokumenteilla. Tässä väitöskirjan yhteenvedossa osatutkimusten tuloksia analysoidaan teoreettisesti.

Ensimmäisen osatutkimuksen tulokset osoittavat, että mittaamiseen perustuva ja yksilöön keskittyvä toiminta on ohjauksen käytänteissä rationalisoitunut. Sen sijaan relationaalisisessa toiminnassa ja tyypillisesti ammatillisen huolenpidon etiikkaan kuuluva yhteinen vastuu eivät olleet keskeisiä. Relationaalisena ja eimitattavana ilmiönä hahmotettu toimijuus resonoi ambivalentilla tavalla ristiriitaisesti ammatillisen koulutuksen tulosvastuullisuuden ja managerialististen

ihanteiden kanssa. Esimerkiksi fragmentaaristen tavoitteiden suunnittelun ja seurannan mittarit osoittivat koulutuksen laatua ohjaustilanteiden ja koulutuksen ulkopuolelle. Samalla ohjauksen relationaalinen toiminta menetti merkitystään.

Toisen osatutkimuksen tulosten perusteella oppiminen hahmottui eriarvoisuutta tuottavaksi etenemismoottoriksi, jossa opiskelija valmentautuu välineellisiin valmiuksiin. Nämä osaamisiksi kutsutut valmiudet rakentuvat eräänlaiseen osaamistetriksen kehikseen, joka noudattaa laskennallisuuden logiikkaa. Opiskelijoiden relationaaliset elämänalueet jäävät tässä toisinaan huomioimatta. Osaamisperusteisuudella on voimakas kytkös talouselämään, ja siten talouselämä näyttää vahvistavan otettaan ammatillisesta koulutuksesta juuri osaamisperusteisuuden kautta. Koulutuksen tulokset järjeistetään inhimillisen pääoman teoriaan kiinnityksen, jolloin tulosvastuullisuus samaistetaan tavoitteelliseen toimintaan ja silloin toiminnan merkitykselliset kohteet eri elämäntilanteessa hämärtyvät. Ohjauksen toiminnassa toimivat ihmiset yrittävät silti tunnustaa ihmisyden arvoa; säännöt ja struktuurit tekevät tämän vaikeaksi.

Kolmannessa osatutkimuksessa käsitellään sitä, miten opiskelijan henkilökohtaisten tarpeiden huomioiminen ja yksilöllistetyt tavoitteet eroavat toisistaan. Ohjauksessa keskityttiin yksilöllistettyihin osaamisen tavoitteisiin. Tämä johti siihen, että määritellyn ja osoitettavissa olevan osaamisen ulkopuoliset ilmiöt opiskelijan elämässä jäivät huomiotta. Ohjaustyössä kuitenkin edellytettiin opiskelijoiden ainutlaatuisuuden ymmärtämistä ja tunnistamista ja tunnistamista ihmisinä. Tästä syntyi ohjauksen harmaa vyöhyke. Ohjauksen toiminnan kohteiden relationaaliset motiivit ovat jyrkässä ristiriidassa koulutuksen tulosodotusten ja sääntelyä tuottavan toiminnan kanssa.

Osatutkimusten tulosten perusteella esitän, että Deweyn kokemuksellisuuteen perustuva tietämisen teoria on ajankohtaistunut osaamisperusteisuuden kautta. Osaamista yritetään perustella tietämiseen perustuvaksi. Ongelmallisen epistemologiansa myötä osaaminen kiinnittyy silti yksilön fragmentaariin käyttäytymisiin, joita tulkitaan osaamisen merkkeinä. Kuitenkin on niin, että tieto eroaa tietämisestä. Sosiaalisten ja materiaalien maailmojen syvyysontologiaan perustuva tiedon oikeutus muuttuu sumeaksi, kun opiskelijoiden episteeminen pääsy tiedonaloihin ja niiden merkitysjärjestelmiin rajoittuu. Siksi tietoon perustuva relationaalinen toimijuus supistuu, ja tämä johtaa yhteiskunnallisten erontekojen jälleen tuottamiseen. Teknistaloudellista rationaalisuutta tarjotaan keskeiseksi tavaksi ymmärtää, mitä maailma ja ihminen ovat. Tämä on ego-keskeinen rationaalisuusvirhe, josta tulee normatiivinen poliittinen lähestymistapa. Sen kautta on yhä vaikeampaa muodostaa luottamusta toisiamme kohtaan. Tämä tekee osaamisperusteisesta ammatillisesta koulutuksesta samanaikaisesti sekä vähemmän koulutuksellisen että vähemmän ammatillisen.

Avainsanat: tavoitteellinen toiminta, ammatillisuus, taloudellistaminen, teknistaloudellinen rationaalisuus, osaaminen, taidot, valmius, tulosvastuu

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To my children. You're all the colours in my life. You remind me of a reality beyond the one(s) described and analysed in my texts. One here and now, one about joy, happiness, and grief. One truly about living here and now. One practical, in which I lose my keys, my (physical) glasses, my wallet and my hat, and one magical ... daily you call my cell phone so I can locate it at the weirdest places. Let's hope I'll return to what is left of my senses when 'Pappas book' is finally ready.

And finally, with all my love, citing and thanking Anthony Doerr (2014, p. 531, *All the light we cannot see*), 'without whom this could not exist, and upon whom all this depends,' my wife, Nina.

Thank you for believing.

Billnäs 25th July 2023

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LIST OF ORIGINAL PUBLICATIONS

This doctoral thesis is based on the following peer-reviewed original publications and this present summary at hand. The publications are referred to with Roman numerals (I, II, and III).

- I. Rosenblad, N., Schaffar, B., & Löfström, E. (2022). Immeasurability loss? An analysis of the impacts of accountability measures on counselling within VET. *Nordic Journal of Vocational Education and Training*, 12(2), 1-23. <https://doi.org/10.3384/njvet.2242-458X.221221>
- II. Rosenblad, N., Schaffar, B., & Löfström, E. (2022). VET and the “Competency-Tetris”: Inclusion of Whom, to What, and Where?. *Nordic Journal of Comparative and International Education (NJCIE)*, 6(3-4). <https://doi.org/10.7577/njcie.4835>
- III. Rosenblad, N., Schaffar, B., & Löfström, E. (2022). The grey zone between individualised goal and actual need: a CHAT analysis of student counselling within VET. *Journal of Vocational Education & Training*. Online first. <https://doi.org/10.1080/13636820.2022.2144933>

ABBREVIATIONS

SAC	Structure, agency, and culture
CBT	Competency-based training
Cedefop	European Centre for the Development of Vocational Training
CHAT	Cultural historical activity theory
CR	Critical realism
EDUFI	Finnish National Agency for Education
FMEAE	Ministry of Economic Affairs and Employment of Finland
FMEC	Finnish Ministry of Education and Culture
NPM	New public management
NGO	Non-governmental organisations
NQF	National qualifications framework
OECD	Organisation for Economic Co-operation and Development
PCDP	Personal competence development plan
PIAAC	Programme for the International Assessment of Adult Competencies
QR	Qualification requirement (vocational)
VET	Vocational education and training

PROLOGUE

Management of work via workers' 'skills' and 'competencies' operates on the edge between bodily located 'knowing' (*res extensa*) and mind as 'something that occupies space' (*res cogitans*) (Biesta, 2010, p. 38), i.e., outcome and process can be distinguished. According to René Descartes—the cartesian thesis—these two phenomena are intrinsically separate and cannot be reduced to or explained by each other. However, it seems that this distinction has been misunderstood by management consultants and desired by 'modern science' (Bornemark, 2018a; von Wright, 2020 [1986]). As separating the tones and words in a song to measure and quantify their 'quality' and the quality of music disappeared. Once, before 'Sancta Æmulatio,' (The Sacred Desire for Competition, N.R.'s translation) (Liedman, 2007), quality was about something else. Perhaps holism. Georg Henrik von Wright argued that the basic concept for holism is that it is more than the sum of its parts (von Wright, 2020 [1986], p. 14). The basic concept in this thesis is that society is more than the sum of its individuals, and that professionalism is more than its empirically assessable units. When the colours of light were to become measured by thermodynamic temperature, or defined by codes, it didn't start to mean that the colours had vanished from the world. Colours can say things to us, mean things for us, beyond their nuance (Liedman, 2007). A colour is thus more than what can be understood by the measurable and standardised code of the colour. Contemporary management based on 'modern science' tend to disregard that; assuming we can measure and evaluate and improve, based on what is called 'evidence.' Just as the measured data are our new 'information' about how the word can be, and we in it, everything the measurement says is about how something was at that point of time we measured it (Czarniawska, 2018).

However, the focus on measurable outcomes has had a variety of implications for interpersonal work accounts. In Finland, for example, forestry is classified into areas, one of which has such a low economic value that it is non-taxable, known as waste land (in Swedish: *tvinmark*, in Finnish: *joutometsä*). The classifications indeed led to a focus on monetary worth in production and growth: productive timber in forestry counts as prospective profit (Kuusipalo, 2000). Just as in vocational education, something that has monetary worth in return for 'developmental competencies' counts as accountability. However, both the forest and people are about more than what can be a rationalised calculation of productivity (Gorur, 2016). Standardisation relates to the ideas of individualisation and accountability in education, which were sources of discomfort for me as a vocational teacher. I understood my students and what was expected of them in many of the diverse situations they would confront

as the professionals (in electrical engineering) they were to qualify for; I understand engineering (as a profession) quite well because I am one. I had worked with engineering for many years before I started to teach its educational contents. Between 2008 and 2018, the circumstances in VET changed in a variety of ways. Some changes have been more difficult to comprehend than others, the categorical description of tasks comprehended as assessable learning outcomes, for instance. This thesis is about these changes, and I dedicate it to my former colleagues and to my students.

Some of the innumerable things in the world can only be imagined; sensed perhaps. Yet they are equally essential as the observable and measurable ones, and this is not to say they are therefore irrational. Jonna Bornemark (2018a) has put her finger on a sore spot in today's management doctrine. She says that to understand the situations in the world, we reflect ourselves onto an infinitely open-ended horizon, our 'not-knowing' becoming the reference to the rationalised and closed, i.e., the 'knowing what.' Neither of these can be reduced to one another, we need both if we are to act sensibly, and our not-knowing is not equal to not-yet-knowing in this sense! By the immeasurable though, we can theorise and re-evaluate the categories and question their meaning (Bornemark, 2018a). We adjust our thinking about categories in a way that makes sense to us, going way beyond the consideration of human knowledge and agency as something 'artificial' (Russell, 1946 [2004]). Let me introduce a part of Mary Oliver's poem:

[..]

Meanwhile the world goes on.
Meanwhile the sun and the clear pebbles of the rain
are moving across the landscapes,
over the prairies and the deep trees,
the mountains and the rivers.
Meanwhile the wild geese, high in the clean blue air,
are heading home again.
Whoever you are, no matter how lonely,
the world offers itself to your imagination,
calls to you like the wild geese, harsh and exciting –
over and over announcing your place
in the family of things.
(Mary Oliver, The *Wild Geese* poem)

For me, Oliver captures this way of understanding life on Earth in a sensitive and sensible way, despite saying little about knowledge, agency and culture, it is all there. In these days of technological and commercial focus on

the ‘Marketplace’ and ‘Individualisation,’ Oliver might remind us that we all live in a world both harsh and beautiful, but also that the world is relational and vulnerable. Life is not a selfish benefit, in the end there is no competition. Relational work in education, such as vocational education, can be quite like this.

The art on the front page of this thesis (paperback version) reflects something about wild geese and the world. My daughter painted it, and I will always be thankful for that. I have been fascinated by wild geese, how they follow their elderly on their biannual breath-taking travels from one continent to another far away. Their travel, their relational agency, is motivated by the availability of food, coming at a great cost in terms of predation and mortality, especially from human hunting. What do the geese think about the humankind and the world, how do they navigate so precisely? My family and I live beneath a path that some of them frequently take, and they land close to our house. I call out to them every spring and autumn. I think they hear me, and I wonder if they as concerned about each other as I think they are. Why do they return to this location one year after another? I don’t know that: it remains beyond my capacity to know. But I can theorise, and I can realise being wrong in my beliefs, seeking to justify them.

Based on this thesis, I can suggest some practical tasks that could have the power to present policymakers with further implications and the subjects that are of concern to professionals and students. I think that professionals and students should be given opportunities to discuss their concerns with policymakers. I argue the focus of such discussions must emphasise concepts and ideas beyond those of pure employability and the ‘hard’ technical rigour of qualification (which for now are the ‘market relevance’ of VET’s outcomes).

Such technical and economic concepts and ideas say little or nothing about what it is to be truly competent in various situations in the real world. They say even less about social equality, sustainability, and what it is to be professional in terms of responsibility. They say almost nothing about human flourishing and vulnerability (Sayer, 2011). The everyday practices of professionals (like teachers and counsellors, engineers and healthcare workers, practitioners at large) require thinking beyond the outcomes of work and learning. Inspired by discussions taking place in the spheres of vocational Bildung, I would like to invite professionals to ask themselves and others about the ethical values that guide their work, and what the true social and material encountering for them is about.

Referring to Ruhi Tyson’s words (Tyson, 2023b), I suggest that policymakers listen not only to the ‘epic stories’ of success (or failure) emphasised in today’s policy and governing (e.g., by NGOs). The situations and what it means to work alongside practical encounters in today’s world are hardly touched upon

in these epic stories, because they are based on large scale assessments, both standardised and biased. Policymakers could instead be encouraged to take part in the narratives of various moral and ethical conundrums faced by professionals in their immediate practice. What might be noticed is that vocational work is about sensibility and situational judgment, adjustment of methods based on knowledge and reflection in relation to the world. In the context of the Nordic countries, such narratives can be found in the literature written by Tyson (2016, 2017, 2019; 2023a) and Bornemark (2018a, 2018b, 2020).

1 INTRODUCTION

In this study, Anne Edwards' (2007) concept of relational agency is used as a major term: describing the sphere of relationality in interpersonal work and agentic action as knowledge-laden but not knowing-determined. Relational agency is derived from cultural historical activity theory (CHAT), characterising social and collaborative activity and work as being object-related. Objects in the world exist independently of the human mind. Through our engagement with the world, we can attribute meaning to objects via our bodily and mentally located capacity for reasoning. Activity theory incorporates the collective and social into the individual. This way, objects are attached to relational meaning based on which jointly agreed-upon motives between us and the world can be formed. In educational contexts, like in this thesis, relational agency conceptualises how professionals learn to act and work together in the world(s) they can portray with colleagues, as it also conceptualises the same between educational professionals (teachers, counsellors) and their students (Edwards, 2007).

In this introductory chapter, as in the thesis at large, I have sought to explain, and compare, the spheres of relationality and technical rationality in vocational education and training (VET).¹ Let me begin with the research problem, which arguments are further elaborated in this chapter.

Through the competency-based training (CBT) reform to VET, two interrelated problems of different characters merge. First, there is a tension between relational agency and technical rationality (adjustment of means to given ends). As is shown in the sub-studies and will be described in this chapter, CBT is attached to techno-economic rationality. Second, knowledge and knowing are different (Miettinen, 2000). CBT focuses on fragmented pieces of knowing, adhering to instrumentalism but based on a problematic epistemology and a flattened ontology (Wheelahan, 2010). To elaborate on that, taking a realist stance Leesa Wheelahan (2023) explains that the premise of critical realism (CR) is that we cannot fully understand the reality of the social and natural worlds, but we can theorise about it. Theories about the world are undertaken in general systems of meaning, like in the laws of metaphysics, biology, and social sciences, and for some time in orthodox accounts of economics, i.e.,

¹ In this thesis, I have defined vocational education and training (VET) in the same way as in the original publications (I-III). The definition concerns both preparatory education for VET and upper secondary youth and adult VET in Finland, in accordance with the European and National Qualifications Framework and Act on VET in Finland (531/2017). Public Acts and Regulation Statements in Finland are available on the database connected with the Finlex web page (see www.finlex.fi).

human capital theory (Brown et al., 2020; Wheelahan, 2023). In this sense, our knowledge about the world is fallible. Hence, it is based on beliefs for which we must seek continuous justification. This relates to the fundamental idea of education, which is the inquiry for truth (Wheelahan, 2023).

Prior research has shown that CBT is not only a weak informer of learning but is based on experiential approaches and in-action assessment, ignoring what is not practical and neglecting the non-observable, that is, instrumentalism (Schaffar, 2021). CBT in Finland is argued based on David Kolb's (1984) concept of experiential learning cycles (Virolainen, 2023). This must be understood through John Dewey's transactional theory of knowing, based on 'continuous reconstruction' of practical experiences, or 'what works' in practice (Biesta, 2010; Dewey, 1997 [2016]). Based on Dewey, CBT is empowered by practically situated actions, considered effective in work-based occupations seen from the perspective of training and management (Miettinen, 2000). However, general knowledge about the world is important in relational and professional work regarding sensible and responsible deliberation and thoughtful action, based on judgment. The circumstances and conditions for the latter, including access to knowledge, become unclear as the technical and economic rationalisation around VET is emphasised, especially related to learning and individualisation.

Therefore, justification of knowledge becomes increasingly crucial for and within the relational practices of VET. Like in student counselling, and in different work-related situations in general. My aim with this thesis is to analyse empirically observed events in relational practices in competency-based VET to theorise about the premises for learning and spheres of relational agency in relation to the justification of knowledge.

1.1 VET and tensions between relationality and rationality

In Finland, the implementation of competency-based training (CBT) reform to VET, beginning with VET for adults in the 1990s, culminated in 2018 with the generalisation of VET for youth and adults (see Virolainen, 2023). CBT replaces syllabi and schedules with national qualification frameworks and qualification tests, combined with highly individualised studies (Cedefop, 2022; Korpi et al., 2018). Policy, and some national researchers too (e.g., Karusaari, 2020), argues, like the internationally evolving argument, the benefit of CBT is needed if the rapidly changing 'world of work' is met with 'better skilled' workforce.

To this point, the competency-based approach (in Swedish 'baserat på kunnande' and Finnish 'osaamisperusteinen') is emphasised as practical and, due to the focus on work-based occupations, based on experiential approaches

in ‘authentic’ contexts (see Virolainen, 2023). It is possible to see that the same rhetoric and methods used to introduce CBT to VET are used in Finland as in countries that previously embraced the CBT approach, such as Australia, New Zealand, the United Kingdom, and Canada (Wheelahan, 2010). These countries are only a few examples of the numerous nations that have adopted CBT for VET. The focus on economics and the examination of quantifiable results in CBT have gained much attention in policy and practice (Wheelahan, 2010). The ways to comprehend this trend in vocational education policy has been conceptualised as the ‘techno-economic paradigm’ (Virkkunen et al., 2010, pp. 9-11). The result-orientation CBT adheres to is part of a wider tendency: the request for precisely defined units as part of professional work, focusing on manageable outcomes and individuals which is an important link between the managerialist trend and education, focusing on measurement and large-scale data (Allais, 2014; Lindblad et al., 2018; Mertala, 2021).

Cedefop (2022) portrays contemporary Finnish VET as based on a formative assessment model that supports learning for practical work by the close connection to instrumental evaluation of action-based ability, the majority of which tasks is performed for assessment in work environments explained as authentic workplaces. Moreover, the empowerment of skills-informed CBT appears today explained as supported by Kolb’s (1984) experiential learning theory (Virolainen, 2023). David Kolb was particularly interested in reflection on experiences, relying on John Dewey’s transactional theory of knowing (Dewey, 1925, 1997 [2016]). Like Dewey, Kolb believed that unreflective experiences did not generalise into knowledge, or ‘knowing’ but remained as experiences (Kolb, 1984; see also Biesta, 2010, p. 39). Using socio-cultural theory, Viveca Lindberg (2003a, 2003b) has analysed the role of ‘vocational knowing’ as a situated form of assessment in the Nordic context of VET. Her results emphasise the active interplay between the language of the content of the vocation and sociocultural tools on the one hand, and how teachers and students actually employ theoretical and ‘tacit’ knowledge in the process of sensemaking (Lindberg, 2003a, 2003b).

Affordances of pedagogically reflected student counselling in Finland have lately received considerable attention as support for the individualisation of studies in competency-based VET, implemented to ‘meet the needs’ of students and workforce and to ‘improve effectivity’ (Finnish Ministry of Education and Culture [FMEC], 2017a, 2017b, 2017c, 2020a; Korpi et al., 2018).

In adult VET in 1990s Finland, student counselling was broadly considered at various phases of learning and at the VET-society boundaries. Counselling was introduced as a complement to teaching and training due to which clients/students were supported in forming identity and to find jobs through collaborative support. Agency and knowledge were tied to the question of how

counselling can be an emancipatory force for people in VET (see Onnismaa, 2008; Onnismaa et al., 2000; Vehviläinen, 2021). Jussi Onnismaa relates the historic form of counselling to ‘personal meanings of subjective matter’ that ‘do not imply individualism or separation from other students’ (Onnismaa, 2008, p. 88, also quoted in publication III, p. 9). However, the reforms toward CBT (culminating in Finland, 2018) stressed a focus on outcomes (skills/competency or however comprehended), and as a result, the role of counselling as a more open-ended and knowledge-laden emancipatory force became increasingly unclear (see Onnismaa & Pasanen, 2020). The emphasis on Kolb and counselling in CBT-informed Finnish VET further elevates relational practices and learning-reflection, knowledge, and agency to major foundations whose conceptualisation and justification are as ambiguous as the CBT-informed VET’s fragmented practices. This is the primary reason for operationalising relational practices in VET through student counselling in this thesis.

1.1.1 Measurable outcomes and educational accountability

The issue of skilled workers and accountability form a tension to relational meaning and actual needs of people in counselling (Onnismaa & Pasanen, 2020). The reason skills and its sister concept ‘competencies’ became so popular in the worldwide VET initiative is considerably more multi-layered than can, or is relevant to, being thoroughly elaborated here. However, I consider a few layers must be mentioned. One layer is the managerialist reform of public organisation and the turn toward a measurable focus on outcomes from work (Hood & Peters, 2004). Managerialism is tightly interwoven with ideas derived from the human capital theory and related labour productivity doctrines (Lauder et al., 2012; Brown et al., 2020). For example, new public management (NPM)² coined by Christopher Hood in the mid-1990s, puts emphasis of measured data on outcomes of work and as consequence (or as a side effect), the devaluation of content in and motive for work, which becomes clear when seen through the ‘production mode’ in NPM (for conceptualisation, see Hood, 1995). Nonetheless, this side effect to the exchange of measurable data called ‘evidence’ for autonomy in education is that increased production might mean better accountability measures through data but does not equal produced quality of good in terms of the quality of inter-relational work or educational content (see Ball, 2003,

2 In new public management (NPM), quality is predicated on the mapping of tasks via instruction, that are performed via predetermined instrumental actions. In NPM, the emphasis shifts from supply, content, and procedure to the satisfaction of results-oriented measurable criteria and documentation. Hence, the value of situational judgement is de-emphasised, resulting in difficulties for professionals to merge professional standards with expectations of organisational results (see e.g., Hood & Peters, 2004; Bornemark, 2018a, 2018b; Ball, 2017).

2012, 2017; Biesta, 2010, 2020; Brown et al., 2020; Hood & Peters, 2004; Liedman, 2007; Mertala, 2021).

The notion of skill is derived from instrumental epistemologies based on the premises of quantification (Lauder et al., 2012). Numbers are powerful, not at least when presented in league tables put in relation to economic productivity or the waste of such opportunities, which is an important issue of educational accountability today (Lindblad et al., 2018). Hence, numbers and performativity and economy are important drivers in managerialism, and the problem Brown et al. (2020) brought out in addition to that is the paradox that more education equals better skills and higher productivity. Performativity is an important driver of skills-informed ideologies too, such as CBT. Here follows an example in form of a quote of OECD's policy paper's main conclusions (2021):

Skill intensity, captured by educational attainment, is positively and significantly related to productivity. This confirms that investment in education yields high returns through higher productivity (OECD, 2021, p. 7, [italics in the original]).

In other words, a great deal of faith relies on NGO's measurable data translated into the policy of VET via numbers saying something about quantifiable outcomes but little about the meaning, content, or unmeasurable qualities of content and outcomes. For instance, not much is said about what it means to learn a vocation and to be vocationally educated and have the capacity for wise deliberation and thoughtful action (see Tyson, 2017; Schön, 1983). Skills and labour productivity can be developed via VET and can be calculated to meet needs of the workforce too, at least to some extent. Nonetheless, the research-based criticism of the narrowed human capital theory informed approach shows that for knowledge and relational agency, quantifiable outcomes from education alone are not enough. They are not enough since tightly focusing on the 'quantity of wealth' they keep constantly silent on the 'quality of life' (Brown et al., 2020).

1.1.2 Relational professional practices in VET

What professionals must hold at heart if they want to remain productive and develop their ability to use their skills wisely and effectively is not merely anything instrumental but things that are highly intrinsic and agentic. Stephen Billett (2008) has discussed this in terms of 'relational inter-dependence' (see also Eteläpelto et al., 2013). The category of measurable outcomes as such cannot say anything significant about what it is, or takes, to be professional in different situations (Bornemark, 2018a, 2018b; Tyson, 2017, 2023). Hence, observable events that can transform spheres of meaning to our awareness in various situations include phenomena which can be observed and empirically

identified, and therefore readily made measurable, and other phenomena that cannot. In other words, what in human action is assessed and hence measured consists of a well-defined entity or target, which alone cannot bear meaning or direction by itself, since meaning and direction are relational and immeasurable phenomena (Bornemark, 2018a, 2018b). The formation of meaning and sense to us include the underlying interplay between social and natural structures and mechanisms in the social and natural worlds that to a wide extent are invisible to us (Archer, 1995; Archer et al., 1998).

This causes certain conundrums and distortions in relational practice when adhering to a focus on outcomes. For example, VET teachers have considered the rising control and rules and competency-based criteria for vocational skills contextual evaluation and qualification tests, or vocational skills demonstration, as a sign of lack of faith in their professional expertise and another effort to control their work (Poikela & Rökköläinen, 2006; Virolainen, 2023). To put it slightly differently, teachers are concerned about CBT reducing their expertise to 'learning managers' (see Wheelahan, 2010) which relates to what courses, schedules and syllabi in CBT are substituted by qualification requirements and individually progressing experiential approaches and tasks, focusing on assessment and accreditation (Virolainen, 2023). Teachers' professional roles are moved towards providing guidance for students in various contexts, approaches and experiential occupations when the teacher and teaching and the educational content are steadily de-emphasised (Pietilä et al., 2021; Pietilä & Lappalainen, 2023; Kontio et al., 2019).

The instrumental account of education, such as the CBT approach (Schaffar, 2021), is criticised as adjusting the means of education and relational systems of meaning to the ends of competency-based assessment and the documented support of individual choice according to these ends (see Biesta, 2020; Wheelahan, 2010, 2012; Sääntti et al., 2021). It is perhaps these ends that mirror Finnish VET teachers' above-mentioned concerns about the international scholarly critique about CBT. Also, the qualifications framework is blurring the boundaries between VET and work (Allais, 2014, 2017) making it difficult for professionals in VET schools to merge their professional standards and values with their professional ethics of care (Edwards, 2007). In the sub-studies this, being summarised and further analysed, is the primary tension visible in student counselling in Finnish VET. The relational boundaries in VET practices are challenged by the structures connected to techno-economisation, gaining consequences for jointly agreed-upon objects and motives in everyday work situations counsellors perceive with their students (see Edwards, 2007, 2017; Virkkunen et al., 2010). These relational spheres of meaning in human-knowledge-to-action capacity, i.e., relational agency considered as knowledge laden, must be considered as both a non-linear and a non-

individualist process (Daniels et al., 2010; Edwards & Kinti, 2010). This kind of positioning of relational agency, learning and knowledge forms a tension about the instrumentalist epistemology and empirical ontology of CBT (see Wheelahan, 2010). This tension called my attention to relational practices in VET as a research context, operationalised in student counselling.

1.1.3 Finnish VET and its reforms

The VET reform objectives in Finland over the past decade (2006-2018) focused on individualised competency and skill as the overall goal. That is, the ‘best practice’ and outcome VET must provide its ‘customers’ in the market economy (Korpi et al., 2018; FMEC, 2020b). In so doing, economic incentives became the important driver of VET (Edwards & Kinti, 2010) rather than professional, relational or pedagogical reflections on what is substantial in knowledge and professionalism in VET’s processes: in unstable zones of operation in the social world, sensible actions, or actions in the first place, cannot be taken as a given (cf. Schön, 2001; Engeström, 2000).

The ‘dynamic’ and ambiguous customer-oriented approach to CBT (see FMEC, 2017c; Korpi et al., 2018) has widely emphasised individualisation of ‘self-governed learners and professionals’ in Finnish VET (Niemi & Jahnukainen, 2019). Alongside structural changes made to Finnish VET, student counselling was introduced as support for students’ learning and orientation in highly individualised study programmes (FMEC, 2020a, 2018; Cedefop, 2020; cf. Onnismaa & Pasanen, 2020; Rosenblad et al., 2021). Counselling and guidance became substantial, but the relational pedagogical foundation was simultaneously de-emphasised on the premise that skills and rationalised accreditation of competency units and guidance of training towards students’ vocational skills assessment tests received widespread focus (Isopahkala-Bouret, 2013; Onnismaa, 2008; Onnismaa & Pasanen, 2020).

In CBT, curriculum and syllabi as the foundation for timetable-based VET have been replaced by customised models that are free of content and time but have fixed outcomes (competency units) stated as the premise for detailed descriptions of tasks (Schaffar, 2021; Schaffar & Rosenblad, 2021; Wheelahan, 2010, 2012; Björk-Åman & Ström, 2022). Contracts, as the ‘personal competence development plan’ (PCDP) in Finland (Act on Finnish VET, 531/2017), are compulsory for all VET students. PCDPs are used to organise and manage each student’s path towards the purpose stated (like skills assessment, accomplishment of one or more qualification units, accreditation, etc.). Time

limits and competency units ³ are stated in the PCDP, as well as the planning of study which also involves defining different combinations of work-based occupations and school-based settings, or apprenticeship (Finnish National Agency for Education [EDUFI], 2021). The PCDP furthermore addresses the numerous financing sources for individual students' routes to and from VET, for which the left alliance's Minister of Education Li Andersson imposed future specifications (FMEC, 2022). In the PCDP, career planning is a formal task in addition to the planned acquisition of competency units, and the student's 'ratio' (see Bornemark, 2018b) of employment or progression to higher education is measured alongside the planned and attained qualification (Act 531/2017; Act on the funding of VET in Finland, 532/2017).

Indeed, one might see some similarities between the evaluation and accreditation of prior learning and 'competencies' in the PCDP approach to VET in Finland and the ideas of Kolb (1984) (see Virolainen, 2023), such as the 'villages' that experiential learning has adopted to conceptualise perceptions of change and 'personal growth' (e.g., Jarvis, 1995; Tennant, 1997; also, Vehviläinen, 2014). Research on the 'experiential' as a concept connected to skills, competencies, economy, and individualisation in VET has mostly remained unproblematized, not only in Finland (with a few outliers, such as Kontio et al., 2019; Onnismaa & Pasanen, 2020; Onnismaa, 2008; Miettinen, 2000). Onnismaa and Pasanen (2020) show the tension between relationality and rationality becomes glaringly apparent in student counselling in Finnish VET, starting to emerge a little more than two decades ago when CBT was introduced into adult VET.

The CHAT derived concept that Anne Edwards (2007) formulated as a 'professional ethics of care' as part of relational agency—collaborative professional practices and their boundaries with clients and objects—can help explain some of the problems with the relationality-rationality tension, which amongst other things is generated by the managerialist approach to accountability (emphasised by Onnismaa & Pasanen, 2020). Edwards' concept further demonstrates that relational agency is a fluid object-mediated phenomenon, a fragile knowledge-laden relational process rather than an outcome (Edwards, 2007, 2017; Edwards & Kinti, 2010). For example, relational agency can be used to explain the reasons why counselling as a relational practice in education (between counsellors and their clients/students) must balance institutional results (accountability) with mutually agreed-upon

3 The competency unit is an entity used as the credential in the national qualification requirements of VET. A competency unit is based on 'competence points.' A basic upper secondary qualification consists of 180 competence points over several competency units of which orientation is 45 competence points for general study and 135 competence points for vocational study (EDUFI, 2021).

motives (meaning, motives and needs). Such attempts in Finnish contexts have been made by Sanna Vehviläinen (2014, 2021). She discusses the balanced process (between perceived needs/motives and institutional results) as ‘the third way’ of interpersonal relationship, object-mediated agency as a purpose for student counselling as support for learning. Also, interprofessional activity is a process and an important state, a part of relational agency: placing the client at the centre of the system (Vehviläinen, 2014; Edwards, 2007, 2010, 2017). Relational support, based on Kolb’s ideas also, of pedagogical professionals is crucial to promote learning and the creation of meaning in VET for students in CBT, but for education, agency and knowledge can mean many different things; yet, relational processes (like counselling and developmental expertise) is made more difficult by the ongoing fragmentation and techno-economisation of VET (Virkkunen et al., 2010; see also Edwards & Kinti, 2010; Edwards, 2007, 2017).

In many ways, student counselling responds to the enhanced self-governance and ‘dynamic’ performativity empowerment of competency, but it also opposes individualist notions of agency that neoliberal/managerialist approaches promote (see Toiviainen & Brunila, 2021; Hooley et al., 2017; Bårdsdatter, 2021). However, counselling in conjunction with VET has also been viewed as an essential pedagogical and relational activity, contributing to the social justice perspectives of education, in which subjectivity and relational characteristics are formed (Toiviainen, 2022). This is the type of activity Vehviläinen (2014) relies on when she explicates questions about how we are supposed connect to the world alongside the balancing of institutional results and personal motives and needs. Sociocultural, jointly agreed-upon, objects are part of this portrayal of the relational sphere in agency, used to make every-day choices and decisions professionals makes with their clients portrayable. These objects cannot be any object; one moment they have to construe meaning to every-day practice, then to loneliness, exhaustion, injustice, racism, in a world that exists with or without us and which encountering with follows no path of mechanistic continuous conjunctions or prepositions of ‘dynamic’ but ready categorised choices in the end; the next moment educational aspects of the same objects must be depicted (see Edwards, 2017).

The ongoing violent Russian invasion of Ukraine might serve as a vivid illustration of why suffering, vulnerability, and flourishing are part of the world which suddenly concerns its ‘Western’ part (for an extensive discussion about human vulnerability and flourishing, see Sayer, 2011). If one tries to take the perspective of refugees, asylum seekers in Finnish VET, fleeing war; encouraged to get jobs (Ministry of the Interior, 2023): To them, VET plays an important role connected to possible flourishing via integration, social inclusion, professional work, and hope, as it does to unemployed people in general (Onnimaa, 2008; Onnimaa & Pasanen, 2020). To be at the service of

people from various backgrounds and motives, counsellors must take rather different perspectives to reach joint agreements with their clients/students. Here, wise deliberation and the portrayal of emancipation as a meaning for education are not far away. And this is what relational agency is about: a subjective but relationally empowered strength to portray meaning and question existing structures with by making them visible (Vehviläinen, 2014; see also Björk-Åman & Ström, 2022).

In a broader sense that is what the world could be like in terms of a more equal and fairer place, if one was free to choose (Asghari & Schaffar, 2019). In this depiction, knowledge and epistemic access to and systems of meaning is a requirement for relational agency in education, playing a role that from the perspective of CR cannot be presumed. Neither can, based on similar assumptions, the borders and substance of knowledge be taken for granted. (Young, 2012; Wheelahan, 2023).

1.2 Research questions

In this thesis, I will adapt the depth-ontology in philosophy of critical realism to the concept of object-mediated motive and activity-dependence as reason for learning, professionalism, and the basic component for agency (Archer, 2020) and relational agency (Edwards, 2007). In CHAT, the object-mediated motive is the core concept for collaborative human practice and action, defining a locus of activity systems and social structures (Daniels, 2012; Daniels et al., 2010; Engeström, 2014 [1987]). Object-motives in Roy Bhaskar's (2008 [1975]) philosophy of critical realism has been shown to be applicable to research on relational work, problematising educational practices due to current economic and managerialist influences on pedagogy, knowledge, and agency (Archer, 2020; Wheelahan, 2007a, 2023; Young, 2007, 2012).

The following research questions are addressed:

- Seen through student counselling activity in competency-based vocational education and training, how is learning and relational agency conceptualised?
- How are justification for knowledge and access to systems of meaning established in competency-based vocational education and training?

This thesis is based on three peer-reviewed original publications and this thesis summary. I refer to these publications and the sub-studies they are based on with Roman numerals (I-III).

In the following chapters, I will further explain the theoretical foundation of CHAT, the concept of activity systems in relation to the philosophy of critical realism. In Chapter 2, I will also thoroughly elaborate on the extent to which CHAT and critical realism are insufficient on their own and seek to explain how activity theory can be understood through the explanatory framework of critical realism, social realism. In Chapter 2 I also elaborate on the concept of professionalism and technical rationality; I will then describe the methodological choices made, data production as part of ethnographic field work and analytical attempts undertaken (in Chapter 3); then I set out to summarise the results from the three sub studies, reported in the three publications, followed by the results the analysis made for this thesis summary brings out (in Chapter 4); the main results from this thesis are further discussed and reflected on towards the broader theoretical frame (in Chapter 5), where also the limitations and trustworthiness in relation to this research are evaluated and the need for further research is discussed.

2 THEORETICAL FRAME

Cultural historical activity theory (CHAT) as explained by Harry Daniels and Anne Edwards (2010) can be handled as a broader methodological framework as its theoretical concept, the activity system, put forth by A. N. Leontiev (1978) and developed by Yrjö Engeström (2014 [1987]) can serve as research tool.

Critical realism (CR) is a philosophy based on materialist premises, not a theory. Leesa Wheelahan (2023) explains that CR elaborates on the metaphysical and social premises of the nature of the world, focusing on the ontology of social sciences, not its epistemology (Wheelahan, 2023, see also 2007a). Critical realists hold as central that our knowledge about what is real about the world is fallible. That is, while we cannot fully comprehend reality, we can still theorise about it: our theories about the world will infinitely be refined in our struggle to understand reality (Bhaskar, 1998 [1975]). For education, this epistemic relativism has consequences for how we think about knowledge-laden agency, in relation to culture and structures in the social and natural worlds. Put differently, in the social sciences we can, and we should, theorise about the reality of the social and the natural worlds whilst acknowledging our limitations in doing. This way of considering ‘the world before word’ must also consider that we could be wrong. Thus, we must be open to adjust our theories about the social and natural world (Wheelahan, 2023).

In this thesis, CHAT is interpreted through the philosophical lens of CR. That is, CHAT is a theory and methodology, critical realism is the philosophy of social sciences, in which social realism is an explanatory framework (see Archer, 2020). CHAT is based on a materialist ontology, suggesting that our knowledge of the world is based on our practice in it. Referring to Engeström & Miettinen (1999) Wheelahan (2007a) explains this as that:

Unlike constructivist approaches that focus primarily on the discursive (or the construction of ‘texts’) as the source of meaning, activity theory is materialist because it focuses on practice in a material and social world, with communication a form of practice (Wheelahan, 2007a, p. 191).

In other words, CHAT communicates our socially and historically altered practice in the environment that surrounds us (see Engeström, 2014 [1987]; Wheelahan, 2007a). Wheelahan (2007a) explains that philosophy and theory sharing similar ontological underpinning can be blended and she concludes CHAT and CR share that, and be looked at together. There are two main reasons for looking at CHAT through philosophy of CR here, considering the research purpose.

The first is the need for a non-conflationary analysis and the second is that this must include the denial of reducing knowledge into knowing. Neither

CHAT (a theory) nor CR (a philosophy) can undertake that on their own. These reasons are elaborated on in the following.

Based on Margaret Archer's reasoning about the need for non-conflationary analysis and theorising in social sciences (as education and economics both are) (Archer, 1995, 2020), the 'modern' way of focusing professional practices and education on outcomes have not reduced the need for non-conflationary analysis and theorising. I would claim that the focus on human capital theory in education suggests it must be the other way around.

For instance, on one hand, competency-based training (CBT) in VET produces the 'need' to reduce the inertly subjective or relational to the orchestration of individual actions as by economisation of human agency and individualisation of the 'skilled worker' comprehended by orthodox human capital theory (Brown et al., 2020; Lauder et al., 2018). To this is related the indoctrination of the 'accountable' organisation to public services (such as VET as an educational institution) and structural individualisation of the subject(s) based on rationalisation and speculation of human abilities (or competencies/skills). The economisation of objects and subjects, that the Western world indeed connect to, has been in focus for research using activity theory before. Engeström identifies this by stating that objects (sociocultural objects found within activity systems) are becoming increasingly difficult for subjects to portray (Engeström, 2018). The fragmentation of objects in the world connects to both education and economy. On the other hand, CBT is explained as 'practical' gaining further consequences how its conceptualisation is, and has been, based on aggregative epistemology, assembling one concept from here and another from there, then put together based on the assumption of 'what works' (Wheelahan, 2010). That is, the positioning of 'atomised bits' as rationalised goals of CBT-oriented practices were positioned as measured targets of individualised performativity management. This, too, has in prior research been criticised as weak informers of learning having perhaps disastrous causalities for education (Ball, 2017).

Based on the Marxist foundations of CHAT, the economisation of human activity is indeed an issue CHAT scholars are seeking to problematise (Engeström, 2014 [1987]). However, not so often problematised via clearly articulated epistemic relativism but via the analysis of historicity and culture of tools and institutionalised human activity (Miettinen, 2006). Miettinen sees CHAT as contrasted to Dewey's reconstruction of 'knowing' based on experiences and therefore the transactional relations between subjects and the natural world. It is via these concepts the denial of individual competency—as the economised way to explain professionalism—as well as goal-rationalised accounts in general are also denied in CHAT (Engeström, 2018). However, the notion of competency has been considered to be a structural individualist

notion that pragmatism (and constructivism) makes worse (Wheelahan, 2009, 2010); from the perspective of CHAT, CBT also lack tools, culture, and collaboratively mediated motives. Expanding the notion of competency to something understanding subjectivity through the premises of what is sociocultural or collaborative, is not enough. It is not so since the problem with CBT is widely aggregated and fragmented, powerfully argued based on the premises of pragmatism and authentic work but not proposing any incentives for questioning why, for whom, or under which circumstances, something works or not in those occupations (Wheelahan, 2010, 2012). Undoubtedly, Andrew Sayer takes a critical realist perspective saying that '[t]he question is not only what works, but what it is about the world which makes it work' (Sayer, 2000, p. 42, quoted in Wheelahan, 2023). Critical realists thus have good grounds for questioning why the inquiry for truth in education does not seem to concern or stress CBT. Therefore, the justification of knowledge from within the framework of CBT understood merely through CHAT is not possible to make, in my consideration. However, the request for truth and justification of knowledge, considered as the premises for agency, is important when connected fundamental purposes of education, such as equality and democracy. In extension, this is also a relevant question for the subjects in VET (professionals and students) to ask, gaining relevance for how VET is and can be understood.

Particularly according to earlier criticism of sociocultural theory, CHAT contributes to a 'downward conflation' of the subject, implying that personhood is given from society (see Archer, 1995, 2020). That implies that 'self' is formed by culture, due to which the 'agentic self' carrying subjective thoughts, beliefs and motives, become over-socialised or at least is a little awkward in relation to the collective (Eteläpelto et al., 2013). However, serious attempts have been made to clarify the premises of the agentic self in CHAT by the explanation of the role of the collective for the individual, the role of subjectivity, professionalism, and the power of agency in activity systems, of which the concept of relational agency is one (Edwards, 2005, 2007, 2017). Another such attempt started to be elaborated by Ritva Engeström (2009), distinguishing the 'subject matter domain' as the central activity in relation to other object-informed and intertwined 'logics' operating in related, ontologically similar domains, in activity systems. Although the subject matter seeks to be a portrayer of just that, subjectivity, especially the Helsinki school of activity theory tend to consider agency as part of the systemic sphere merely. For example, within expansive learning, agency is transformed over the boundaries of the networking activity systems, and is occasionally described as an inner strength (or limitation) through subjectivity (Sannino, 2020). As I was into in the introduction, 'relational agency' conceptualised by Edwards (2005, 2007),

is a term derived from the perhaps broadly understood framework of CHAT, sometimes referred to as a methodology (Daniels et al., 2010). Relational agency is a considerable attempt to include spheres of subjectivity and agency to CHAT via the interplay between subjects and objects, and via the positioning of open-ended learning processes and its motives understood as Vygotskian zones of proximal development (Vygotsky, 1978). However, as sociocultural perspectives tend to, the subject is considered to be ‘collaborative and collective subjects’ (see Engeström & Sannino, 2021) and makes Archer’s critique of ‘downward conflation,’ i.e., the over socialisation of the individual in CHAT seem quite valid (see also Eteläpelto et al., 2013).

In terms of the justification of knowledge (we might be wrong) and critical examination of the metaphysical and social premises for relational agency based on knowledge, as part of conceptualisation of learning (the purpose of our intentions vary), the relational practices in competency-based VET seem to suffer from a lack of ontological depth in the literature. Particularly this raises the question of stratified reality and the way we can understand objects and seek to judge them as true or not. By Bhaskar’s (2008 [1975]) ‘judgemental rationality’ in CR one can judge some accounts as better than others according to the request for truth. According to my understanding, CHAT alone does not provide valid access to judgemental rationality what comes to justification of knowledge.

To analyse knowledge in the curriculum of CBT, Wheelahan (2010) uses the depth ontology in the philosophy of CR, which is also the foundation of Archer’s morphogenetic realist social theory (see Archer, 1995 and later works). Social realism avoids seeing the individual as socially produced, explaining how the diminishing of the significance of the individual self is prevented. By keeping structure, agency and culture as separated entities, a relational analysis of interplay between them is kept enabled, to explore how and to what extent human agency can generate and have generated changes in the world (Archer, 1995, 2020; Archer et al., 1998). This research also connects to this, by including analysis of subjective motives and constraints and relational agency alongside relational boundaries as it also sets out to explore and critically investigate generative mechanisms related to social and systemic structures, knowledge, and relational agency. This is based on a desire to avoid what Archer (1995) calls ‘upward conflation’ of the subjective spheres of what is individual. For instance, Archer’s claim (1998) is that upward conflation, or structural individualism, takes place when endorsing the quantitative view of the social world as nothing more than the sum of individuals, which the Hobbesian ideas in Western capitalism and the basic idea in human capital theory and neoliberal individualism contributes to, through under-socialisation of the self (see Brown et al., 2020).

In this research I seek to avoid under socialisation of the agentic self by thoroughly considering the relational boundaries in the social world, which perhaps also was the primary reason for Edwards' interest in relational agency (in 2005 and 2007) and probably for the further developed relational concepts to various forms explaining how professionals work at relational boundaries using knowledge-agency-practice dialectic and conceptual tools (see Edwards, 2017).

Social realism and the morphogenetic approach also avoid 'central conflation' of the world. With central conflation, Archer (1998) means that the contemporary dimension (the dual agentic action and reality-structures interplay) collapses, as is the case for Giddens (1984). For Giddens the contemporary dimension collapses as structures of power diminished or was overcome just by changing how 'individuals agents' think and act, as is also the case of agency in relational practices connected to education and techno-economically portrayed boundaries between education and work (Virkkunen et al., 2010). Like the managerially portrayed transitions between counselling services of disadvantaged people and employability (see Brunila & Lundahl, 2020). The issues of conflation are important when analysing social relational practices in terms of power relations connected to societal structural elaboration or reproduction, i.e., the morphogenetic/morphostatic approach in social realism (Archer, 1995, 1998, 2020).

Wheelahan (2007a) argues that our knowledge about the social and material world is formed by our relational practice in the world which is the reason for her expression 'world before word' (see Wheelahan, 2023, p. 6). In this thesis, relational agency is comprehended as a socio-culturally transformed phenomenon, indicating that our understanding of the world is mediated by objects in the world and therefore is something relational and interpersonal but also material (external to us). In this way, this thesis emphasises that relational agency partly depends on generative structures and mechanisms in the social and natural world more or less invisible to us, hence the analysis made here is connected to the materialist school of thought, seeking to be relativist to the world and our knowledge of it and our subjective and collaborative practice in it. To problematise relational agency as knowledge-laden, hence, knowledge about objects in the social and natural worlds play a role in the way knowledge is pedagogically codified and justified (see Young, 2007, 2012). Agency as purpose for counselling, in a wider perspective, including education, cannot assume any objects as 'good' for the purpose. Hence, justification of knowledge as a question for education consists of what Bhaskar calls judgemental rationality about objects in the world (Bhaskar, 2008 [1975]).

The world seen through the above portrayed lens portrays structures not being static: they are considered to be a result of past human agency and systemic outcomes, and the activity is in continuous movement; hence, future

agentic actions can alter structures but not all structures. This is the basic concept in Archer's social realism and the reason it is called morphogenetic, based on structural elaboration, and also why it can also be morphostatic, viz., structural reproduction (Archer, 1995, 1998, 2020). CHAT as an explanatory framework for CR (or differently put, CR as the philosophical lens to CHAT), enables the analysis of dualistic perspectives on the agentic subject's (individual) motives and actions, structures, and the relationship between causal generative mechanisms and observable actions, culture, and agency. At the centre of this is the object-subject interplay, and interpreting CHAT through the lens of CR, the depth-ontology of objects in the social and natural world. Of these objects we can have knowledge which is fallible, and the question of education is to justify that knowledge (Wheelahan, 2023). In addition, the analysis of the interplay between domains of reality required using CR as a lens to understand CHAT. The latter is tacit on that interplay between empirically observable events (e.g., competency-based assessment) and it being possible for us to be wrong. In CR, we can be wrong since the observable event is a limited portrayer of what is real, like social structures and the natural world, which I will elaborate on further below in this chapter.

To be able to theorise about structures and knowledge of the world, and to portray ourselves in the way we connect our capacity to understand what the world is about is important if we are to justify the role of knowledge for curriculum (for example) (Young, 2007, 2012). Young argues that the role of knowledge in curriculum is to ensure students are provided with access to general systems of meaning in their thoughts. This is what Archer's (1995) concept on 'powerful knowledge' is about. The concept is further developed by Michael Young to 'knowledge of the powerful' and for Young this becomes issues of education and curriculum; the object we seek to understand can have more or less educational meaning, if looked at through CHAT's object-motive and relational agency. Explicitly, knowledge following agentic actions in the world has the potential to generate transformative changes in the world. Someone's understanding of transformative changes and structures in the world cannot be gained solely through the perceptions of the observable events, i.e., experiential perspectives of knowing (Young, 2007, 2012).

The perspectives now taken construe neither our actions nor our knowledge as just reflections of our inner subjective worldview; our thoughts and actions are socio-culturally interrelated, relational, and knowledge laden. Better, any worldview we might have is constrained by our knowledge of the world and our relational boundaries through which we portray meaning of it and seek to describe it further. Thus, the way we portray the world is subjective but inter-relational and continuously changing (Edwards, 2007). This demonstrates the limitations of our understanding of the world on the one

hand and the influence and control that socially constructed agentic structures have over knowledge, and over the subjects then, on the other.

I will now go into more detail about the specific theoretical viewpoints (CHAT) and philosophical presumptions (CR), trying to keep the concept of relational agency and knowledge centred whilst explaining how their terms are analytically used in this thesis. The sections of this chapter are based on the aforementioned theoretical and philosophical agenda, including CHAT and the concept of activity theory (in 2.1) and philosophy of CR (in 2.2) and the further portrayer of the lens they form together (in sub-Chapter 2.2.1). In the sections, I go into more detail about what the terms bring out and what they exclude, taking counterforce in tension between the spheres of relationality and technical rationality in VET and the art of professional work (2.3). Let me start with CHAT.

2.1 Cultural historical activity theory

CHAT is developed as a dynamic research approach of human activity and interaction, posing human activity is communally generated, socially transformed, and mediated by artefacts. CHAT opposed the dominant Positivist idea tradition that was extensively embraced in 20th-century study and is based on L. S. Vygotsky's theories of active and relational human psychological processes. According to the basic sociocultural Vygotskian thesis (1978), humans do not merely behave; rather, situations and our understanding of situations are uncertain, and educational professionals might act in many ways or withhold from acting in accordance with that understanding (Lipponen & Kumpulainen, 2011). According to CHAT, higher psychological functions include collaboration that turn social and historical learning into a mediated reality that we can understand and consider as our own. In other words, a process to depict the interactions between people and their surroundings in terms of how we imagine and interpret meaning, and how that interpretation serves as the motivation for our actions, including what is accomplished as part of a larger human endeavour, i.e., semiotic mediation (of language and signs) as historical and cultural mediation of artefacts at large (Daniels et al., 2010; Säljö, 2014; Wertsch, 1991).

The Vygotskian thesis of cultural mediation, in the most basic form, is based on the portrayer of a triad: the subject-artefact-object nodes, which are each based on a dialectical relationship to each other and the system they together form (Vygotsky, 1978, p. 40). Engeström (2014 [1987]) describes how this connection of artefacts to the understanding of human capacity to think, learn, and act was revolutionary in that the unit analysis came to bridge

the cartesian divide of individual (body vs. mind) on the one hand and the untouchable social and societal structure to individual action on the other. That implies certain significant aspects in the critique of positivism, as well as establishing the theoretical foundation for the perspective taken in this thesis as they also functioned as the basic ingredients when the concept of relational agency was developed as an explanatory framework for work as a 'resourceful practitioner' (by Edwards, 2005). First, without our environment, we cannot be fully understood as individuals. As individuals, we contribute to what the environment is as long as we exist and act as part of it. Second, the reality we can perceive is in addition to semiotics, a social, and cultural construction, an object-informed reality between our mind and the world which Edwards explain as 'that we transform the world through our actions upon it and these actions include the conceptual and material resources we bring to bear while trying to make sense of it' (Edwards, 2007, p. 5). This relates to Vygotskian sociocultural mediation of artefacts and concepts like internalisation and externalisation, not to the individualist encounter of agency (cf. Säljö, 2014).

These arguments demonstrate that in a society, as part of what is social, we connect as subjective agentic actors ourselves to social phenomena or commitments, such as relationships. We assign our relationships to motives, emotions, embodiment, and meaning, and attribute them to production of new artefacts that contribute to the formation of new social structures and boundaries, of which individuals are part (Engeström, 2014 [1987], p. xiv). Hence, the sociocultural object cannot be portrayed as part of human action without the subject's constitution of it, although, relating to its materialist ontology, objects exist without human experiencing them, whilst it is via our mental and intellectual capacity of imagination objects are attributed cultural and social meaning and we can have knowledge of that (Engeström & Miettinen, 1999). This is why the Vygotskian sociocultural perspective is considered posing the question of 'if-we-learn' as inappropriate. Rather the question should stress 'what-we-learn' through cultural appropriation and by support and guidance of others (Säljö, 2014, pp. 235-238).

This is where I wish to point out two central shortcomings in CHAT and in the sociocultural school of thought in relation to education: not whatever knowledge can be considered as equally valuable, and the relation between what is subjective and subjectively agentic and the collectively generated power and meaning of this issue remains rather fluid, despite that subjectivity is Engeström's default position (2014 [1987]) whenever the circumstances allow it (see Edwards, 2007). In CHAT, knowledge, based on which agency is laden or formed but not determined, has to a wide extent remained unclear. It is acknowledged that human agentic actions produce outcomes but the source for that is (awkwardly) construed as communally generated and object mediated.

This is what it can mean when the role of the self and the self's agentic actions are argued downward conflated, or via 'structural orchestration of agents' like Archer puts it (1995). Contrasting that, and for more recent development of 'transformative agency' in CHAT, see Sannino (2020).

Engeström's (2014 [1987]) development of CHAT includes a shift in perspective between individual and communal acts, influenced by Marx's ideas on labour power and exchange (Daniels et al., 2010). Daniels and colleagues explain how the CHAT framework expresses that objects have distinctive characteristics and directions; and that from Leontiev's work (1978), the Marxist understanding of societal class and labour-power related tensions emerge from the balance, or imbalance, of production, distribution, exchange, and consumption generated by the capitalist economy, and the constant movement of the system both between interacting boundaries and longitudinal transformation (Daniels et al., 2010). In this vein, economisation, cultural variety, and evolving technology disrupt activity by causing internal and external ruptures, distortions, and critical tensions. Activity expands and transforms forward through resolving or working around crucial tensions, such as introducing new tools or altering rules and standards. For Engeström, changes in these structures consolidate the activity system.

Engeström explains that tools/signs etc. are not only established through cultural mediation and transformation, they are also changed 'from above', due to which conflicts are generated in the system and if collectively assessed as problematic also can become external, transformed between interacting systems (Engeström, 2014 [1987]). This is what I found particularly interesting since the VET reforms in Finland, as reforms in general tend to, can be considered to have been a 'from above' given requirement for change, deviating from cultural development (for elaboration of 'goal rationalised change,' see Engeström, 2000).

I would like to underpin a brief illustration of this by the utilitarian impacts on technical rationality of professional work, like in competency-based VET. For example, new types of managerially arranged administration attached new objects and tools to the relational work activity in VET to manage and control work made in the system by the control of the outcomes it produces. On the occasion of Finnish VET and the customer-oriented competencies approach (cf. Karusaari, 2020), this is precisely what the case was. As a theoretically derived causation of the outcomes-control, a discrepancy between the sphere of meaning and the purposes of production began to form, which contradictions have remained and have only been partially resolved since the economisation of relational work (as education) tightened its possession (Virkkunen et al., 2010); the transformation of objects of meaning become more difficult to depict due to atomisation and individualisation of agentic actions alongside professional work (Engeström, 2018).

Due to research by Michael Cole (e.g., Cole, 1985) and Engeström (2014 [1987]), further development of CHAT has been inspired by the need to understand interactions between two or more activity systems and, for example, the constitution of their shared objects (for global influence as research framework, see e.g., Kaptelinin & Nardi, 2006). The third generation of activity theory, as it is known (Engeström, 2001, 2014 [1987]; Engeström & Sannino, 2021), has provided information about the methodology that makes up the thesis' research design: collaboration between VET and the local workplaces on the one hand, VET and educational governing on the other. Here, relational agency and knowledge are natural analytical units, also utilised in the relational practices they are based within. From this point on, it becomes increasingly important to distinguish between activity theory, of which the activity system (see Figure 1) is a specific concept, and CHAT, which is a broader methodology and approach to understanding and conducting research, including guiding research design principles (see Daniels et al., 2010).

In activity theory, relational agency and joint agreements leading to mediated motive for collective action in relational work is an ongoing process between professionals and clients, emerging from joint agreement on objects (as informers of motives). Here, that is, the motives for learning, foundation of knowledge yet to be acquired, and formation of co-action undertaken in the relational encounter of student counselling (see Edwards, 2007). This includes the various interactions that occur between the subject and other subjects as well as their surrounding artefacts, instruments and tools (like technology and language), and rules (like Acts, curriculum, professional standards), community (community of students and professionals in VET), and division of labour (workforce); see Figure 1.

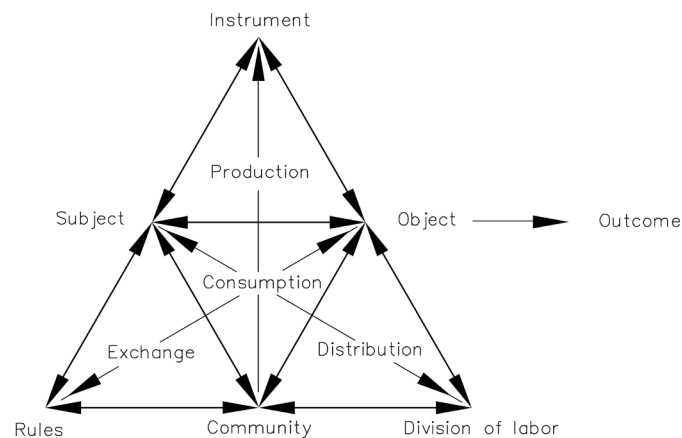


Figure 1. My reprinting of 'The structure of human activity' (Engeström 2014 [1987], p. 63; also published in publication III).

Conversely to being a physical observation of ‘something,’ the object in activity theory is a construction of the human mind, which positions it on a multi-layered, instable and fragile horizon (Engeström, 2000). When an object is just physical, it normally does not portray a significant meaning for humans: it lacks motive. Stetsenko (2005) explains that when we portray an object, we ‘work on it’ whilst the object itself will ‘work back on us’ and affect our subjectivity as well as how we will approach the object, in the present and in the future. As a result of the ‘transactional’ or reciprocal nature of the interaction between the subject and the object, we can undergo personal development simply by bringing about changes in the object, we attribute meaning of mental and intellectual character to the object and via that we can seek questioning its significance or gain a deeper comprehension of its purpose (Stetsenko, 2005).

2.1.1 Activity theory perspectives to knowledge and relational agency

The transformations of subjectivity and object are located within the cultural systems that co-evolve due to interdependence in various situations and occupations (Billett, 2006; Billett & Pavlova, 2005). Relational agency can therefore be considered to be co-evolving alongside the ‘transactional relationship between subject and object’ (Edwards, 2007, p. 7) which may describe the complex relationship and fragile boundaries between the subject and the world and between subjects rather than giving any legitimacy to agency as an individualist concept. This is what I refer to in the Prologue to this thesis as ‘the world offers itself to your imagination / ... in the family of things’ in the poem by Mary Oliver, in connection to relational agentic action; action that Wild Geese undertake every spring and autumn flying over the house where I live; in terms of CHAT and people, the object-motive is not necessary a physical force in this sense although it can be that too, a force strong enough for changing the world, like in the Black Lives Matter movement. Thus, influenced by Sayer (2011), the Wild Geese express vulnerability and flourishing and why things in the world matter.

Explained by Anne Edwards’ words (2007), agentic action is ‘capacity to work with others to expand the object that one is working on by bringing to bear the sense-making of others and to draw on the resources they offer when responding to that sense-making’ (Edwards, 2007, p. 4). This is the relation between the world and professional relational agency, but it consists of the connection to Archer’s morphogenetic approach (1995), because some structures resist change (which relates to morphostasis), and to CR in social sciences more broadly. Some things that matter to us in the world simply exist

and as such, i.e., are independent of us (Sayer, 2011). I will come to that below (in section 2.2).

Via the concept of relational agency, the range of object-informed activity systems is broadened to include a perspective in which the agentic subject, the philosophical 'self', portrays motives mediated by fragments of the same object shared with other subjects as a part of our relational boundaries within the system (Engeström, 2014 [1987]). However, CHAT provides a limited perspective into how these relational boundaries, based on which we can portray objects of meaning, are part of the power structures generated by inequality or technical rationality and limited by the atomisation of knowledge. Here, Anne Edwards (2007) explains that a fluidity of objects and relational boundaries are central to the way relational agency is formed based on knowledge and which principles we will share in each moment agentic actions are undertaken. CHAT-informed analysis of relational inter-professional and professional-client (i.e., counsellor-student) boundaries has related object-informed or, as for Engeström (2001), object-mediated action, to relational agency (Edwards, 2007). Edwards utilised the theorisation of counsellor-client interactions as being dependent on joint-agreements on common-sense objects, co-objects, or, as for Engeström, shared objects (Engeström, 2014 [1987]). Additionally, joint agreements explore ever-expanding objects that regulate the subject's available opportunities and affordances through joint-actions and agentic externalisation. The subject-object relationship in counselling can therefore be seen as constantly co-evolving alongside learning. It also necessitates the ongoing renegotiation of changing objects, or exploration of horizons of meaning, that are relationally viewed as having the potential to satisfy the subjective need state through new learning (Vehviläinen, 2014; Edwards, 2007).

According to Engeström (2014 [1987]), if and when the object-mediated motive responds to the activity system's communally generated need, the system produces outcomes. As a result, once an object reaches this phase, it vanishes and a new one begins to form. However, a limitation CHAT has, to further problematise the meaning of VET or content of knowledge, outcomes cannot be whatsoever outcomes. In terms of access to general systems of meaning and knowledge as a request for truth, as concerning educational purposes, outcomes shall not be fixed but they must be following a process of discussion, validation, and justification (Biesta, 2010; Young, 2012; Wheelahan, 2023). With education, the pedagogically reflected purpose must be to upbringing and foster capacity via which one critically can examine what the truth can possibly be, such as to reveal social injustice, oppression or abuse, fraud and other ethical breaches, like oppressive working conditions or inadequate work methods. And this is precisely the point to which Wheelahan (2010, 2023) explains that knowledge

and capacity to ‘think beyond’ the immediately observable event or situation is essential.

Therefore, knowledge is a question for educational policy and practice to deal with. And this also is why the object of activity cannot be whatever object despite the outcomes considering the rules, acts and standards of the system (e.g., the laws and curriculum administering the educational institution) may be desired as fixed to national qualifications frameworks (Allais, 2014). These points altogether contrast the critical examination of agency following from knowledge as issue of power to ‘modern’ competency- and customer-oriented reform strategies. Modern interventional reforms are often based on empirical and merely ‘practical’ problems that contemporary VET reform inspired by ‘evidence’ of ‘what works’ and so forth (Biesta, 2010). Human capital theory indeed connects to this by notions on ‘what works’ like competency, skills, or however construed (Wheelahan, 2010). Nevertheless, according to Engeström (2000), management-oriented public organisation reforms are goal-oriented and based on measurable, desirable outcomes that are strongly entangled with economic affordances. If these given goals of the system (e.g., educational reform objectives, measurement, and new rules) are widely rejected as dysfunctional in actual sociocultural practices, they might cause systemic contraction of the activity, followed by its transformation into more primitive forms. This leads to the notion of contradiction and the question of systemic cultural development or systemic contraction (see Engeström 2000, pp. 154–155).

2.1.2 The concept of contradiction in activity theory

A central concept in activity theory analysis is contradictions. These can be studied in a variety of ways, but the most common is to break down the triangular activity system into its component parts (nodes) and examine the relationships between them (see Figure 1), and between related systems. It is important to note that contradictions can have multiple levels, or orders, depending on where they are manifested. Contradiction in activity theory helps scholars, practitioners, and anyone interested in complex social systems comprehend the dynamic character of human activity (Engeström, 2014 [1987]).

To elaborate on some fundamental perspectives on contradiction and transformational change and (social realist’s) morphogenesis (Archer, 1998), or put differently, to view activity theoretical analysis through the lens of critical realism: According to Engeström (2014 [1987]), the Vygotskian viewpoint on development in activity theory is predicated by the resolution of levelled contradictions from the primary to the tertiary order. Contradictions are not directly observable; they can be analytically manifested based on observable and sensible breakdowns, disruptions, and critical tensions in the present

activity. The major contradiction consists of a substantial conflict between the use value and trade value of the object (Engeström, 2000) and is located inside the nodes (corners) of the central activity system's sub-triangles (see Figure 1). The primary contradiction is the historically accumulated tension, and it can be portrayed in relation to agentic actions in the present. In this research, for critical realists as activity theorists that is the use of subject-specific knowledge versus the monetary worth of a competency-based credential and assessed qualification.

The secondary contradiction arises between the nodes (corners) in the structure of the activity systems. It results from disruptions and conflicts becoming interoperable and the emergence of a sharp tension between opposing motives. If the acute tension fundamentally conflicts with the required condition of activity, a double bind can be manifested. Typically, the double bind involves qualitatively new tools or contradictory elements in the system caused by several factors as a solution to an emerging either/or situation (Engeström 2014 [1987], p. 139). If representatives of culture (e.g., professionals/counsellors) recommend more sophisticated instruments or tools to the central activity, the secondary contradiction might transform to the tertiary level. If the increased central activity and its linked activity systems clash, a quaternary contradiction might occur between the central activity and rule-producing systems (see Engeström 2014 [1987]). Notably, the contradiction will be between the central activity of interpersonal counselling in VET and its administration, legislation, or governing.

In this thesis this is compared to Archer's morphogenetic/morphostatic approach known as the social realist perspective of the philosophy of CR (Archer, 1995, 2020; see also Wheelahan, 2023). In view of this, VET can respond to established and labelled ends, transform or reproduce structures, but if the ends are problematic, we should disclose structures and a quest for truth beyond them, since they are policy constructions. This is the point at which professionalism, or collaborative expertise, cannot be reduced to individual competency in any meaningful manner (Engeström, 2018). These are the areas in which CHAT was sought as the explanatory framework (or a lens) to philosophy CR in this thesis; let me now explain how.

2.2 Critical realist perspectives to knowledge and agency

Wheelahan (2023) says all social theories, like critical realism as a philosophy of social sciences, make metaphysical claims about the world, society, and human agency. Critical realism distinguishes between knowledge of the world,

knowledge that we construct to theorise about the world, agency, and the real world. Critical realists insisting, hence, there is a world independent of our knowledge of it (Bhaskar, 2008 [1975]). Archer (2020), discussing alongside the life work of Bhaskar, explains that critical realism necessitates the analytical recognition of ‘distinctive causal powers’ influencing our capacity for agentic action in the present situation (Archer, 2020, p. 138). First, this adheres to processes of social interaction at a particular place and time (like educational measurement); second, the social configuration that has been around for some time (for example, the neoliberal marketplace economy); and third, transforming the particular kind of social reality over time (mediating artefacts and societal structure).

Archer (2020) contends that such a thing as a contextless action does not exist. There exists no objective, non-conscious, social process in morphogenetic social realism which distinguishes it from biology and neurosciences where any cognitive process is separated from the ‘social’ in science. Neither is there any social interaction that is separatable from the context which makes it ‘context-dependent’ and to that extent will oppose constructivist and positivist social theory, and to a particular extent experiential theory, like the one of Dewey’s (1925, 1991, 1997 [2016]). The context of social interaction and subjective action is part of the boundaries of social activity, which Archer (1998) calls ‘activity-dependent’ although the ways in which we act connects to, and produces boundaries, and are dependent on, material and physical things. For example, chains of activity outcomes are resulting in global warming. Archer outlines the critical realist foundation of social realism by stating that all sciences must do justice to what is social. What is social, citing her own words, ‘has to come in a sack, SAC: it must incorporate Structure, Agency and Culture’ (Archer, 2020, p. 138). Arguing alongside Bhaskar, she adds, because of SAC, critical realists refuse the empiricist basis for causation (viz., opposing positivist accounts) in insisting that social reality is stratified and therefore pay attention to the examination of the subjective, structural, and agentic strata for knowledge, as well as acknowledging causal mechanisms between the transitive domain (‘bodies of knowledge’) and the intransitive domain (what knowledge seeks to portray: ‘the natural and social world’), i.e., objects (Archer, 2020; Wheelahan, 2023, p. 3).

In addition to the above-made points, critical realism (activity- and context-dependence) are materialist, as is CHAT. And yet one issue I like to raise, based on Archer’s morphogenetic social theory, or ‘methodology’ (see Archer, 2020, pp. 137-138) enabling the criticism of technical rationality, is that human ideas leading to actions are also ‘concept dependent.’ Namely, people undertaking any motive-mediated actions have some idea of what they are doing, although it can be imaginary and abstract, even false or illegal. These

points together elucidate that to learn by action, students must have a notion of what they are doing. This generates the essential flaw of CBT into the classical pedagogical question that VET teachers today are concerned with (i.e., how can one learn if s/he have no clue?), which in competency-based criteria of the national qualifications framework (NQF) and qualification requirements (QRs), agency seems to be taken for granted (Allais, 2014; Schaffar, 2021). For instance, the tasks thoroughly described as units of assessment in the local QRs—e.g., of electrical engineering ‘perform a mechanical and electrical condition assessment of the motor and take the necessary maintenance measures’ (EDUFI, 2023, Qualification for Electrical Drive Installations, 2nd paragraph, 1st task)—is of little help if the student does not know much, or even anything, about what that means.

To address the issue of education raised by Biesta (2010, 2020), namely that students learn something from someone for a reason, the purpose of the communally generated activity must be to address collaboratively agreed-upon joint objects, which, if responding to subjective needs and activity needs, produce new agentic outcomes. Even though objects can distribute pedagogy and knowledge through mediated co-operative activity (Daniels et al., 2010; Engeström, 2014 [1987]), there is subjective variety in how meanings are attributed to objects, which must not be confused with individualisation. In other words, motivation for subjectivity can be encouraged or restrained, which Biesta describes as individuation or ‘subjectification’ (Biesta, 2020).

In critical realism, subjectification recalls a key point that also here must be clarified. That point is that people in education are subjective people, human beings, who cannot transform themselves to individualised subjects like ‘customers’ although educational systems can be individualising their progression toward something desirable, like qualification, which the Anthropocene of neoliberal economy have tended to also be doing (Archer, 2020; Brown et al., 2020). This will come to play a role for the analysis undertaken and, accordingly, the results from this thesis, although this chapter is not the place to elaborate more on that. However, there is a significant difference between subjectification and individualisation that Jussi Onnismaa and Heikki Pasanen have discussed in connection to student counselling in Finnish VET (Onnismaa, 2008; Onnismaa & Pasanen, 2020). This difference relates to the distinction between holism and subjectivity and the artificial technique of representing the aggregated sum of empirically observable components, also conceptualised as the problem of educational datafication (in Finnish contexts, see Mertala, 2021).

Moreover, critical realists are careful with emphasising that our knowledge of the world derives from our practice in it, as is also the fundamental basis in CHAT (Edwards, 2007). For critical realists, however, the world is envisioned

as complex and stratified, i.e., exist without our awareness of it; the world can be described for a few decades back or so through structures of neoliberal economy and human capital theory, for some hundred years by the theory of capitalism, socialism, or a similar theory, and this can be continued to a phase in time where austerity was not about money but about metaphysics and biology (Wheelahan, 2023). In VET, this relates to the tension of modernity described as the oscillation between purpose (Kettunen, 2013) which structures and power and policy concepts can be revealed and explored through CR and CHAT but not alone by either.

Applying Bhaskar’s depth-ontology of CR, competency and skills-oriented VET and its epistemological and the ontological foundation of CBT can be critically examined (and so is done by Wheelahan, 2010). Although attempts are made to correct the epistemological flaw expressed by, amongst others Wheelahan (2010), the lack of analysis and slippery way to explain epistemology is quite surprising, even astonishing (see e.g., Cedefop, 2022). That is, the dominating reductionist ontology to empirical realism (which Wheelahan has shown competency-based training connecting itself to, e.g., 2012) that places a clear order for further critique, which is one of the reasons for the theoretical explanatory framework of this thesis. What I mean is that in CR, for Bhaskar, the nature of the world is structured by domains, of which each domain exists independently of the condition that allows our access to them, independent of our knowledge of them, as they follow their own laws and causal mechanisms that are relatively autonomous of the pattern of observable events and human-made actions, and our knowledge of them. The domains are the real, actual, and empirical (see Table 1).

Table 1. The domains of real, actual, and empirical in critical realism based on Bhaskar (2008 [1975], p. 47)

	Domain of real	Domain of actual	Domain of empirical
Mechanisms	✓		
Events	✓	✓	
Experiences	✓	✓	✓

The realms of Bhaskar exist within both the natural and social worlds and are the basis for all critical realist schools of thought (Wheelahan, 2023). He explains that events occur regardless of our awareness of them. Mechanisms in the social and natural worlds are real, and the events they generate as part of causal laws and generative mechanisms are independent of the pattern of events we can observe in the domain of the actual, although they are part of what is real; the patterns and events we can observe of what is real are apparent to us in the domain of the empirical. The assessment in CBT is thus

limited to the empirical domain (Young, 2012; Wheelahan, 2009, 2010). We can manufacture some events on our own and to a certain extent, we can see the pattern of these events that result from that action and related actions, which in CBT is then assessed (Cedefop, 2020, 2022). This is the essence of empirical realism: eliminating variables so a limited reality can be observed through simulation and experiment. Even if systems are open in physics, biology, mathematics, etc., this is due to what it is possible to achieve with scientific methods. Nevertheless, it is not possible in the social worlds of the sciences, because social and natural structures are open but agency and culture in them uncontrollable in real-life settings. In such settings, the 'practical' (such as skills) is at work as part of what is subjective and agentic, although cultural and to some extent therefore structural.

Wheelahan (2023) argues that most of the time, structures and generative mechanisms are unobservable, but we can see their consequences and theorise about their patterns, such as gravity in the natural world or causality of national law in the social world. The same also holds for other more or less causal mechanisms in social structures, like that knowledge capitalism produces social and societal inequalities, or the right to get paid for work done. However, there is inequality in how the right to get paid for work done is provided for different people based on their race or gender, for example. To attempt to address these disparities (like sexism, racism, etc.) structures must be distinguished from agency and culture (the SAC) (Archer, 2020). Here, a paradox in the linear assumption of causality emerges in the empirical domain. The locus of critique from critical realism, the positivist search for prediction, is rejected because it is based on an atomistic understanding of the nature of the social world which seeks to explain the conjunction of observable (therefore empirical/measurable) bits of events arguing they obey causality rather than doing relational analysis of causality of generative mechanisms (Wheelahan, 2023). Hence, critical realists oppose the thought of first-order causality (positivism/behaviourism, etc.) in the social and practical worlds. Critical realists give no priority to either element in the structural, agentic, or cultural world, but accept upward and downward causality between strata (Bhaskar, 2008 [1975], see Table 1.). Furthermore, Archer says, 'a stratified ontology of the social order, endorsing emergence and the causal consequences of the second or third-order interplay between emergent properties and powers' (Archer, 2020, p. 137). For example: the orthodox human capital theory (the concept of Homo Economicus) holds at heart that learning equates with higher yields, and due to accumulated capital in human generate higher profit, it is seen as first order causality related to social inclusion (cf. publication II and the definition Simplican et al., 2015 provides), whilst it has been proved many times over that yield and social inclusion depend on or are restricted by other phenomena, like

gender inequalities, racism, sexism and various forms of manipulating labour power via access to knowledge, which competency-based training is critiqued as being connected to (Brown et al., 2020; Lauder et al., 2018; Wheelahan, 2012). All these are generative and layered structures, that human capital seeks to reduce by 'central conflation,' of which some are results of past agentic outcomes applied upon natural causal laws, such as that we are born with genetic inheritance determining for example the colour of our skin or our gender. However, some structures are sensitive to alteration through outcomes from new agentic actions. Other structures are more solid, like racism, which we can see as the intense struggle of oppressed people seeking change, such as the Black Lives Matter movement (see Dennis, 2018; Pyy, 2022).

For example, applying an example Archer (2020) initiated to my own expertise in engineering, as a former VET teacher in electrical design and engineering, I had to make sure my students understood that the cables they planned and installed in a house were not the cause of light or heating. The cables are merely a component in the transformation chain of energy from one form to another. The cables, the calculation of their dimensions and reasoning about meaningful methods for their installation, all that are always situationally blurred in real work situations and the methods considered meaningful culturally and contextually biased, no matter how standardised and well-defined. The reality of energy as we now know it follows its own causal laws and the premises of their transformation must therefore be distinguished from what is blurred in the social worlds. If my students did not fully comprehend this and fully understand the invisible power of electricity, they would not only endanger their own lives in the course of their daily work, but they could also be responsible for the death of others due to electric shock or fire. This example can be applied to any vocational field addressed by VET, including the professional agency of teachers, counsellors, or health care workers and their student/client relationships (see Edwards, 2007, 2017).

The above-described example may serve as a portrayer of the causal interplay between strata when the case of neglect of any causal relation at the level of the empirical domain is now suggested as being outdated. It may also provide an example of a materialist perspective to education; via objects of reality, we seek to understand what that object is based on, and we can together theorise about the meaning of that although we might be wrong (Wheelahan, 2023). Yet, the development of knowledge via which structures and the nature of reality can be theorised upon, codified, and more deeply understood, is weakly under laboured in CBT (see Wheelahan, 2010, 2012). In CR this problem becomes visible and can help us comprehend that our knowledge is fallible but still possible and that knowledge plays a role in professionalism.

But it will not stop there, knowledge plays a role way beyond that. In the case above, it was evident though, precisely what can be measured in the natural world (Current and Voltage) and what can be calculated (Energy). What is less evident is what is measurable in social worlds other than instrumental outcomes, although we can theorise about that as well: Accordingly, there is no such thing in the realm of relational significance reduced to causality of action. Whether something is valid or not is a question of situational judgement and the analytical dualism of the interplay between strata (Archer, 2020). In CR, to this end it should also be comprehensible that what emerges in the domain of the empirical might be highly contradictory (Wheelahen, 2023).

Biesta's critical point (2020) to the individualised qualification doctrine Western education now obeys based on measurement of learning outcomes, is that the meaning of education must be that students acquire knowledge for a reason. And that they do so from someone, whilst 'learnification' transcend everything there is to say about education being reduced to learners and learning (Biesta, 2020, p. 91). This is precisely what becomes problematic in 'pragmatic' ideologies like the skills and competency-oriented training approaches, like CBT (see Wheelahan, 2023). This is why all students, regardless of educational level or field, like vocational vs. academic (Nylund et al., 2018; Nylund & Virolainen, 2017) must be taught something 'more' than the quantitative outcome of ability, and why there must be a conversation about what to include in curriculum beyond what can be comprehended as accountability (see Young, 2007).

This is the point to which the adjusted means to the fixed end of competency or skill is problematic, since quality that today is laid out as accountability is not about content and relational spheres of meaning with the 'voice of knowledge' (Young, 2012; Moore, 2007) but about empirical observation and measurement; about processing this data to recapture 'information' on how something shall be (Lindblad et al., 2018; Mertala, 2021). In this regard, access to knowledge comprehended within general systems of meaning in VET and through the educational spheres of VET are issues the empiricist perspective is likely to overlook.

2.2.1 Adopting critical realist terms to activity theory

Considering Archer's SAC (2020), the emphasis is on comprehending the dynamic interplay in between the SAC and how this interplay influences the evolution and transformation of social systems across time. This can be ontologically and theoretically merged with the *object* and object-informed activity systems as informer and meaning maker of the action to outcome delivery. Structure refers to the patterns, norms, and rules that shape social activity, and it can be seen as the *rules* of activity or mechanisms of morphogenetic structure, that

is, *subjects* or people and groups of people or *communities* operating through *tools/instruments*. Agency refers to the actions, decisions, and intentions of individuals and groups or teams, and it can be seen as the actors or active agents who are (actively) engaged in social systems, that is, *relational agency*. Culture refers to the shared values, beliefs, and symbolic practices that shape the meaning and significance of social activity, and it can be seen as the ‘context’ in which social activity takes place, i.e., that the activity system indeed is contextual compared to that morphogenetic approach is activity-dependent and context-dependent, which I have been into. Together, the transformation and mobilisation of agency over the boundaries and structures are open-ended and dynamic processes that are in a constant interplay with each other.

The benefit of using CHAT, or specifically activity theory, as the explanatory framework for CR is the awareness and relational analysis of underlying causes than to just look at events as observable. However, to see the world through technical rationality is to consider it to have been empirically adjusted to the atomistic events we can observe, which will also change what and how we think of education, which can be widely adjusted based on risky strategies. For instance, the objects and structures are different from our knowledge about them (Wheelahan, 2023). The goals and perspectives of the individuals and organisations within a community may be in conflict with structural laws, they can be in conflict with social structures like racism or gender related inequalities, socioeconomic structures generated by unequal access to theoretical knowledge, it may be that technical rigour (as it was for Schön) is insufficient to deal with problems of great social and environmental importance (Schön, 1983, further elaborated in Tyson, 2017). By analysing knowledge and agency in Archer’s temporal dimension (see Archer, 1995 and her later works), an understanding of the formation and transformation of structures in social systems and activity systems can be construed. Also, contradictions can now be analytically grasped as part of the intransitive domain and transitive domain, each of different conditional existence (Archer, 1995; Wheelahan, 2023). Likewise, causal mechanisms in the intransitive domain generate events in the transitive domain. Based on analytical dualism these domains are carefully kept separate. And underlying mechanisms are available to theorise about based on what we think we know about objects and structures (Archer, 1995, 1998, 2020). Therefore, the autonomy of individuals may not correspond with societal norms and ideas. If I may provide one more example, not in the core of the purpose with VET, but most certainly as part of agency in its relational practices concerning life: we fall in love, and we are free to choose who and how we love but social structures might limit the legacy of showing this (see Wheelahan, 2023).

Identifying these inconsistencies might serve as a starting point for gaining a deeper understanding of the processes of social change and developing strategies for addressing them. Namely, if autonomy is granted for us to act (in VET as self-regulated students and professionals), we should also acknowledge the freedom to not act, which based on Biesta must be of a first-person matter. That is so because every human subject since slavery and the guild system were abolished have the freedom to refrain to act (Biesta, 2020; in relation to VET see Engström, 2007; Kettunen, 2001, 2013). In the empiricist ‘constant conjunction’ approach the choice to not act is not profoundly acknowledged (Archer, 2020). However, through the combination of critical realism and CHAT, the different factors that are driving contradictions can be addressed by issues of a subjective nature in which the content and ontology of knowledge play a role. This can be addressed to the role of knowledge in curriculum, the differentiation between the theoretical and practical in knowledge, and by keeping people and social and things separate, construing VET as more or less educational in terms of justification of knowledge to the claim of truth (Whelehan, 2010).

Now, the combination of critical realism to activity theory holds the opportunity to analyse structure and transformation of agency and knowledge production beyond the measured criteria of outcome and individual prosperity as means adjusted to that outcome, which include a critique of ‘constant conjunctions’ in technical instrumentalism. This requires that the concept of contradiction in activity systems, following in development or contraction of the activity system (Engeström, 2010) is blended with the temporal dimension in CR: social structures are result of past agentic action, and so on (Archer, 1995). In CHAT, human activity considered to be fragile and unstable based on its historical transformation from the past to the future. The historical transformation of activity systems occurs alongside cultural diversity and technological advancement, providing new objects and tools (for example, immigration, artificial intelligence, or educational reform).

This generates internal and external ruptures, oppositional motives, distortions, and critical tensions. Critical tensions cannot be resolved or worked around directly but can be developed into contractions. If resolved, contradictions expand the activity system into culturally more advanced forms. In CR, structural elaboration (morphogenesis) is new agentic actions to gain the power to alter structures. However, if contradictions remain unsolved, they lead to culturally more primitive forms, a contraction of the activity system. In CR, this can be explained as structural reproduction (morphostasis). Either way, contradictions (in CHAT) and the temporal dimension (in CR) must be analytically portrayed. They are not observable in practice, although they exist (Archer, 1995; Daniels, 2012; Engeström, 2014 [1987]). Looking at CHAT whilst the refusal of conflationary accounts, the “three pillars’ for explanatory

adequacy: ontological realism, epistemic relativism and judgemental rationality' (Archer, 2020, p. 137) must be included.

One last issue that yet requires theoretical elaboration here is the understanding of relational agency for professional activity and the skewed condition for them, both because of the increased focus of technical rationality in VET.

2.3 Experiential approaches vs. technical rationality

As argued above, VET has an educational purpose that shall not be reduced to pre-made technical tasks-based preparation for professional work when contemplating a more equal society and a meaningful existence for everyone and everything else on Earth. That transcends the boundaries of what Donald Schön (1983, 2001) defines as 'technical rigour.' In the paragraphs that follow, I will argue that in contrast to what Schön said was needed some 40 years ago, there has not yet been an increase in understanding of the constraints of professional knowledge and practice due to the revitalisation of positivism-influenced technical rationality. As described in Chapter 1, some global trends have had a significant impact on contemporary VET in Finland, and it is necessary to have a conceptual understanding of these trends to evaluate their practical implications. This is the subject of the brief section that concludes the theoretical framework.

VET must indeed promote instrumental abilities for its students as well; that is, producing skills for clinically reliable tasks. However, if we are to take life on Earth, equality, and sustainable ecology seriously, it is not enough. Taking the perspective of professionals, Schön explained how the emphasis on technical rigour in management obstructs a professional's opportunity to engage in wise deliberation because the holistic encounters and formation of reality as something more than just eminent in the situation and the context was narrowed (Schön, 1983). Dewey had a considerable impact on Schön's text although he was not much mentioned. Dewey's pragmatism is argued as 'the most powerful and sophisticated "practical epistemologies" in Western philosophy' (Biesta, 2010, p. 37). Experiential learning approaches have had a significant impact on educational policy, particularly around VET attempting to separate itself from the Taylorism and behaviourist learning explanations of the industrialisation era (see Billett, 2014). Dewey can be considered to be a materialist because of the way in which he relates to the objects in the world. In this context, the object-mediated perspective on collaborative action is 'practical' because it provides a foundation for experience and related inquiry. However, this process is formed by an on-experience-reflection cycle in which

interaction with the environment was central. Reflection for Dewey was tightly intertwined with critical inquiry and a desire to comprehend the environment to construct knowledge, or knowing, based on a conscious and active reconstruction of experiences (Dewey, 1997 [2016]). Dewey rejects the notion that knowledge and reality are merely social constructions. He recognises that the world's realism exists without our portrayal of it; consequently, both critical realists and Dewey would agree that we are not living in a socially constructed fantasy world. However, realists disagree with Dewey on a focal point of truth. Bertrand Russell, a realist, put his finger on this, suggesting that truth must be judged via cause and consideration of past occurrence since we cannot change the past via present or future actions. In contrast to that, Dewey judged truth based on effects we consider our actions in the world have or will gain according to 'common sense,' giving priority to the contextual and situated in practice. For Dewey, clearly not being relational about the world, it is that our experience of the world is what can assert as our knowing (see also Wheelahan, 2023). For Russell, this connected Dewey to the Western philosophy by which we consider ourselves having the power to alter what we assert to be true and therefore also gain the power to control the future by our actions (Russell, 1946 [2004]). In contemporary educational policy, widely speculating about the future prosperity of the state based on instrumental abilities of individuals (like competencies and skills), Dewey's thoughts are comprehensive (Miettinen, 2000, 2006; Miettinen et al., 2021).

Now, the distortions and resistance to our perception of reality in the world make its existence unavoidable (see Biesta, 2020). This is central for Dewey, whose exploratory account does tacitly accept that 'what works' can be conflictual and unethical in terms of life by virtue of its connection to underlying domains of what is justified as real (in relation to the domain of real in CR, Bhaskar, 2008 [1975]). For example, the electric chair is functional in practice, but the vast majority of electrical engineers I know, including myself, would starkly reject not its physical design, but its purpose as unethical. This is where Dewey starts to gain resonance in contemporary management like NPM. I will elaborate on that via Donald Schön.

Schön (1983, 2001) explained that technical rationality continued to increase its grip as a dominating ideology in the Western labour force (now something NGOs and employment agencies portray as 'the world of work') and its neoliberal management culture; starting from the cartesian divide (Schön, 1983, p. 31; see also Bornemark, 2018a; von Wright, 1994; Kuhn, 2012 [1972]). Schön (1983) explains that:

Technical Rationality depends on agreement about ends. When ends are fixed and clear, then the decision to act can present itself as an

instrumental problem. But when ends are confused and conflicting, there is yet no ‘problem’ to solve (Schön, 1983, p. 41).

Schön’s writing remind us of the historical roots of technical rationality, attempting to tame professional action and regulate knowledge, notably in the fields of engineering and health care/medicine, but also that it had its reasons based on liberalisation of society at large. He attributed the lack of confidence in professional agency that some incidents, including the Watergate scandal in the 1970s and the Medicare fraud, in addition to other unethical professional activities, had yielded to forms of economy-informed management introduced alongside societal liberalisation and individual autonomy (Schön, 2001).

The downturn in the economy of the 1990s prompted emerging needs to be set by ‘modern management,’ which Christopher Hood later also theorised further about in public policy as NPM in 1994, for control of work processes and decision-making financed by public resources (like education and health care) (Hood, 1995). NPM was initiated by a few influential economists arguing the need to remodel social policy and decision making based on management (Clarke et al., 1994). Through the widespread impacts of economic management, work produced in public organisations was reorganised from a content and supply emphasis to an action-centred outcomes-focus, previously re-comprehended as the ‘production mode’ (Hood & Peters, 2004). Instead of being guided by value judgments and methods of public duty, or the content-supply-chain produced outcomes were assessed and altered into a ‘customer-centred’ approach (Clarke & Newman, 1997). Since then, ‘customers’ included children (in early childhood education, pupils in schools), their parents, young people (‘at risk’), unemployed people, elderly people, those in need of medical attention, prisoners, disadvantaged communities, and students and adults (‘life-long learners’) and other ‘societal services’ at large (Brunila & Lundahl, 2020; Onnismaa & Pasanen, 2020; Orre & Hedén, 2009).

The list above could be extended, but there is no need to. As the neoliberal ideology seized influence, the payers of ‘services’ and the ‘end customer’ were increasingly unclear on the one hand, on the other ‘customers’ represent human beings who are caught in the web of unequal societal power structures or between restraints of the marketplace economy, which subjectivity and human rights became blurred. However, customer-centred concepts increased in popularity and became the norm for Western policy, having an impact on professional work for decades to come. The banking systems’ corruption in 2008, i.e., the global financial crisis, further accelerated the focus on technology-informed rationality of professional work (Archer, 2020). Although managerialist and customer-centred concepts have been gradually adopted in Finnish educational institutions, their effect on vocational education and training (VET) has been prominent (FMEC, 2017a; Karusaari, 2020; Korpi et al., 2018), and for VET has been captured by the techno-economic paradigm (Virkkunen et al., 2010).

For the moment, the focus is widely on measured outcomes in VET and from VET (Isopahkala-Bouret, 2013; Kettunen, 2001, 2013; Onnismaa & Pasanen, 2020). Schön's argument (2001) on technical rationality and education identifies several essential tenets of the skill-managerialist ideology today seen in relation to how outcomes are linearly related to economy through CBT. Nonetheless, critical evidence is raised saying that the orthodox economy account to human capital theory (Brown et al., 2020; Lauder et al., 2018) is not only in a particular weak position to inform education, since terms such as the holistic quality of wealth (like dignity) cannot be included in the framework of human capital theory focusing on the quantified quality of life (see also Archer, 2020). Therefore, orthodox economists start to sound increasingly tired in condensing social systems through a filter constructed by 'monetary income' equals 'equivalence of worth.' Brown with colleagues say that orthodox economy influences:

[O]bscures [...] economic and social realities because it ignores what people do for living rather than what they earn from what they do. It flattens social contribution to a market relationship by treating income as a measure of individual contribution, rather than an expression of market value, which may have little connection with individual marginal productivity, let alone social contribution (Brown et al., 2020, p. 222).

According to Brown and his colleagues, expectations on yield (return on investment) is calculated by the comparison of investment related to learning outcomes and the speculated economic value these generate. This linearity is then pushed to constantly increase the generation of economic value in society. Explicitly, while attempting to reduce or tame relational agency to Hobbesian lineage based on Homo Economicus (Wrenn, 2022), it is also describing the nature of economy-informed educational competency and skill, capturing the observable and controllable traits located outside of humans that in action then manifest in instrumental ways through humans (Han, 2008; Schaffar, 2021). However, since this is the way to link education to economic value and measurement by numbers it gains a great deal of attention in policy, resulting in technical rationalisation and individualisation of professional practice that Schön also foresaw (1983). On the basis of the 'correspondence theory' of experiential approaches (such as Dewey's and Kolb's) tied to the Hobbesian lineage, knowledge might be viewed as 'the same' as its objects; nevertheless, critical realists must reject this conception (see Wheelahan, 2023, p. 4). Sayer (2011) argues our subjective presence in the world in relation to its objects is neither an individual privilege nor is our interplay with the world measurable according to techno-economic rationality. On the contrary, our subjective presence in the world is strongly comparative and relational alongside the

metaphysical premises of our existence. Instead of measuring ourselves in absolute standards or generalised goals, we compare ourselves to others we are like and with whom we associate the most. As Sayer argues, this is 'beyond egoism and altruism' (Sayer, 2011, pp. 119-124).

To this end, relational agency is a concept that goes well beyond instrumental concerns and measurement, i.e., technical rationality (cf. Schön, 1983) and the technological view of professionalism (cf. Biesta, 2010, pp. 37-44). The essential tension is now elaborated. That is, between the technical rationality derived from orthodox economists' utilitarian assumption of 'the rational actor' on one hand, and on the other hand, relational agency as an open-ended, holistic, and widely interpersonal and relational sphere, where relational judgment and empathy accentuate part of what neither can be rationally categorised, calculated, sorted, nor measured (see also Bornemark, 2018a).

The same tension is articulated clearly in student counselling in VET and had come to pervade the theoretical and philosophical framework of the three publications (I-III) featured in this thesis. In the following (Chapter 3), the decisions regarding collaborative student counselling as field of research operationalising the realm of relational practices in VET, research design, and methodology and choice of method are described.

3 RESEARCH DESIGN AND METHOD

The research project was initially inspired by a framework described by Anderson and Shattuck (2012) and van den Akker et al. (2006) as design-based research (DBR). Within their described framework, researcher(s) collaborate with practitioners to resolve problems or parts of problems identified in practice, based on which a research-based inquiry or design-concept is formed to find a solution which will provide a scholarly contribution as well as practical benefits (see also, McKenney & Reeves, 2013).

The provision of counselling to VET in Finland is expanding due to labour productivity policies and because of the extension of compulsory education from 16- to 18-year-olds (FMED, 2020a). In relation to the theoretical and contextual perspectives above, technical rationality in VET is gaining some ambiguous implications for the understanding of pedagogy and knowledge used in professional practice in VET and knowledge produced by competency-based VET (Wheelahan, 2010, pp. 126-144). I seek to move towards the activity theory informed analysis of that via Bronfenbrenner (1983): ‘development takes place like a moving train. One can walk forward and backward through the cars, but what really matters is where the train is going’ (quoted in Engeström, 2014 [1987], p. 110).

Applying the moving train analogy within the methodology of CHAT is what has continued pointing out issues with the interventionist explanation of reform: uncritically, taken-for-granted-assumed analogy between the goal of changes made to practice and the mediated motive for actions in that practice (Engeström, 2000). That highlights that any intervention anchored on the concept of practical problems emergent in student counselling cannot be solved by simply identifying an empirically assessed concept, which would manipulate the symptom rather than critically investigating the problem. In this thesis, I therefore employed the critical realist term of ‘judgemental rationality’ (Bhaskar, 2008 [1975]) and the activity-dependent concept of analytical dualism (Archer, 2020) to analyse and theorise about underlying social structures or mechanisms of emergent problems in VET.

Problems emerging from the empirical domain hence have, in terms of CHAT, to be ‘analytically manifested’ (Engeström, 2014 [1987]). This connects critical realism and CHAT to a materialist ontology through an epistemology that is theory-laden (but not theory-determined) (Sayer, 2000; Wheelahan, 2023). Due to a strengthened science philosophical and theoretical analysis explained by Wheelahan (2023) design-based research as the empirical and problem-design driven (reverse engineered) approach was toned down in this research, yet it had been following the basic form of cyclically evolving

collaboration between research and practice during the field work periods, which is widely emphasised in educational design research (van den Akker et al., 2006).

During the analysis, I observed that student counsellors' relational engagement with their students was characterised by tension, rupture, and distortion. Considering CHAT and critical realism, the analysis of relational activity required understanding of the historicity and underlying structure of practice to support understanding beyond the observed event; the event as such was part of existing power structure, generating new ones, as it consists of (and produces) longitudinally transformed tools, object-signs, and artefacts (Engeström, 2014 [1987]; Jordan, 2003) and structures (Archer, 1995, 2000, 2020). Through the analysis, the variety of tensions and ruptures became a pressing but central issue for the research inquiry. Once an issue (such as tension in counselling practices) was discovered, its roots could be located elsewhere than in the present activity (relational student counselling), such as in rules or rule-producing activity systems (see publication III). In this chapter, I seek to explain how CHAT is used as a methodological approach, and what motivated its choice, utilising Jordan's (2003) 'critical ethnography.'

According to critical ethnography, to include distinction and awareness of limitations of one's own ability to form understanding, I have been cyclically returning to observed and sensed phenomena to look at structure and theory to understand epistemology and underlying ontology related to them both (Daniels et al., 2010; Hansen, 2021; Jordan, 2003). This stresses both what was observed and reflected on and how subsequent observations should be focused. Therefore I also suggest the ethnography conducted in this study as something slightly broader than just a qualitative research setting, 'a method' (Lappalainen, 2007) or 'a technique' (Mannay & Morgan, 2015). However, I do not consider critical ethnography to be an overarching methodology, as CHAT is here. Ethnography though, is an overarching perspective taken to sense and understand better and theorise about reality beyond what can be coded and thematised as data. Rather than having prescribed areas of focus that can be checked off a list, ethnographers might desire to sense the tacit and not directly apparent but yet meaningful worlds to portray or explore invisible structures of, for example, power. Hence, ethnography in a particular way goes beyond the outspoken word although the researchers' instrument in the end is the written word (Jordan, 2003; Smyth & McInerney, 2013).

Each section in this chapter includes research-ethical considerations rather than describing them separately. Research ethical consideration and reflection have been interwoven throughout the deliberations, decisions, and actions of the process. This chapter explains what, why, and how, starting with context and fieldwork (Section 3.1). Next follows ethnographic fieldwork

and data production (3.2). In section 3.3, I present the analysis, including the detailed steps for each sub study (reported in respective publications, I-III).

3.1 Participants and research ethics

At the time I was initiating this doctoral research project (2018/19), there were 96 VET schools in Finland. Based on geographical and language-related aspects, a request to respond was sent to five VET school's principal or pedagogical leader (the professional titles vary, see Appendix 1). I received a positive response from two of the schools, based on which an organisational approval proceeding with the project was agreed upon. These agreements were the starting point for information sessions I conducted in the two VET schools. The people invited to the information sessions were people who had responsibilities or were otherwise interested in student counselling related to VET students' 'personal competence development plans (PCDPs), according to information from the school leaders. Ten professionals from the first organisation and 50 from the second attended the information sessions.

The issues I particularly presented about by a detailed description during the sessions where research integrity and participants' right to withdraw consent, that participation was voluntary and based on personal consent, and that deciding not to participate or to personally participate had no further consequences for anyone's position or role in their respective organisations. The same thing was relayed to the school leaders. These issues were also stated in the information letter given to the participants (Appendix 2) and in the subsequent consent agreement (Appendix 3).

During the information sessions, I presented the planned research design, its purpose, the methods to be used, and the practical affordances of the research-based collaboration, and the preliminary scholarly contribution that could be expected. During the information sessions I also presented research ethical statements made in the research plan and detailed statements on research integrity and how protection of participants was going to be handled.

Based on the information sessions, 14 practitioners showed interest and gave their consent to participate, ten and four from the respective VET organisations. The criteria to participate did not include work title, e.g., counsellor or teacher. Nevertheless, all practitioners defined their roles as either counsellor or teacher, having counselling responsibilities in relation to their students' PCDP. In relation to the counselling activity, I used *practitioner* and sometimes *professional* when referring to research participants having a work-related professional role in the organisation. I also mentioned *participants*

referring to situations in the data including both the practitioner/professional and the students' contribution.

To ensure students' consent, beforehand I had sent a separate information letter by e-mail, asking them to share the letter with their students, in connection to communication with the practitioner. The letter expressed a short description of the research, explained from what I interpreted could be the student's perspective. This contained information on who I was (as a researcher), and what my intentions were (due to that role). The text in the letter can be considered to be reader friendly (easily understood) text.⁴ In addition, at the beginning of each counselling session I then gained the practitioners' consent to observe, I handed out the same information letter to the student while I explained verbally who I was and what my aim was and then I asked for consent to observe the counselling session. I also informed them about their options to later withdraw their consent by contacting me or by sending in the opt-out withdrawal of consent letter (see Appendix 4).

The research did not include intervention in the physical or mental integrity of research participants, it did not deviate from the informed consent, participants under the age of 15 were not involved, and no exposure to exceptionally strong stimuli was ever provided. Neither was there at any time any risk of causing long-term or short-term mental harm beyond that encountered in daily life. Consequently, an ethics review was not required in the Finnish context (see Finnish National Board on Research Integrity [TENK], 2019).

3.2 Field work and data production

Ethnographers and ethnographically inspired researchers might generally agree that ethnographic 'fieldwork' consists of a quiet sort of waiting, including constant unpredictability. In ethnographic fieldwork, feelings of trust evolve when joint agreements are made. In addition, agreements yet to be made involve almost endless re-negotiation. Fieldwork is constantly balancing what can be handled and what cannot (e.g., Mannay & Morgan, 2015). Research on student counselling and personal counselling sessions can include sensitive issues concerning personal life, at least to some extent. Sometimes even more sensitive issues could be covered, such as learning-related stigma or school bullying. To be invited to a counselling session was therefore based on relational

4 When providing information in written form to a diverse set of people, easily accessible material is crucial. I followed Celia's guidelines (see: <https://www.saaavutettavasti.fi/>), a Finnish state-funded organisation that promotes precisely worded language.

confidence (Atkinson et al., 2007). Hence each observation for me brought out sensibility to the themes discussed that I connected to ethical awareness, resulting in notes taken or ignored. Reaching that point, until each participatory observation actually became possible, the fieldwork was filled with extensive communication: many phone calls, e-mails, and other messages. I was also invited to join coffee and lunch breaks with the practitioners. No notes or any recordings were taken from these sessions, but they were important in building trust: during the breaks and informal discussion invitations to join counselling sessions, or to call someone, for instance the following week, concerning such occurrences was given.

At organised meetings held alongside the ethnographic fieldwork period, preliminary results were discussed and reflected upon in anonymised form. Meeting invitations and information about the research was sent to the participants one by one, or by using the hidden e-mail address function. Participation in meetings and providing information was voluntary and participating in meetings was therefore open. However, at the beginning of each session I informed about participants' right to remain anonymous. At any point, participants had the right to reaffirm or withdraw their consent, and the organisation could also have ended its participation in the research without any further consequence. No incentives were used.

The above-described direct 'observational' part of the fieldwork was carried out in the (Finnish) summer and autumn in 2020 and winter 2021. The data produced during the participatory observations were sorted separately. In the publications, these observational data were described as dataset D1. As part of the research framework, semi-structured interviews were conducted with the practitioners. The semi-structure interviews were conducted during the winter and spring 2021. The interviews were based on themes emerging from preliminary analysis of the observational data. Recorded semi-structured interviews were conducted only with practitioners, not with students. Each interview was recorded with a portable voice recorder. I transcribed the voice recordings to written text by applying a systematic line-by-line listening-writing-listening-rewriting method. Finalising each transcription, I listened through the recording once more, making final corrections to the text. This approach minimised the difference between the recorded voice and the transcribed text. The interviews were based on a short question followed by the participant's long answer method, described as trustworthiness of interview data by Kvale and Brinkmann (2014). The interviews were conducted during the (Finnish) winter and spring 2021. In the publications, the data produced during the semi-structured interviews are described as dataset D2.

Keeping in mind all the background work to 'get access' to observational activities underpin that ethnographic work is not merely about 'collecting' data

(Atkinson et al., 2007). It is not about taking notes from something waiting to be observed and comprehensively documented. Mannay and Morgan (2015) explains how ethnographic fieldwork will be about 'the waiting field' not meaning the field is waiting, but that the ethnographic researcher is becoming part of the lived reality and situation, in which notes are made or not made due to an always blurred surrounding. Different structures related to student counselling and the collaborative agency between practitioners and interaction between practitioner and client (student) encouraged a shift of observational focus, also bearing in mind that not everything can be observed but to some extent perhaps it can be 'sensed' (Atkinson et al., 2007). For example, in the ethnographic methodology the possibility and reason to shift focus and shift level of sensitivity has been described through the official, the informal, and the physical layer of the school context (Gordon et al., 2005). During observations and interviews I encouraged myself to 'look deeper,' and be sensitive to that which was 'not spoken', and merely sensed phenomenon (Atkinson et al., 2007). I was interested in knowing more about what was discussed in the counselling sessions but also what was not discussed or otherwise remained tacit.

Furthermore, my focus was on who initiated the themes that were discussed and how it was brought out in the framework of competency-based qualification and its various individualised study paths, learning processes and occupations. Hence, this includes intentions to not only pay attention to the clearest signals as evidence of something obvious emerging through readymade problems (Gordon et al., 2005), but also on to critically examine power structures (Jordan, 2003; Smyth & McInerney, 2013). To this point the focus was on how joint agreements were made and what they then led to for the student and for the activity. In CHAT terms, these could be described as 'object-motives' and jointly agreed-upon motives as 'joint-motives' (Edwards, 2007; Edwards & Kinti, 2010). This interest concerns learning processes while studying; how objects as mental and physical meaning-makers or artefacts (Säljö, 2014) form relational agency and learning and then work back on subjects producing motives for further learning (Edwards, 2007). This was the way I also started to pay attention to the social and material boundaries of CHAT that must be related to Archer's interplay between separated structures, agency, and culture (the SAC) (Archer, 2020; Wheelahan, 2023) and, also, the thought of the critical relation to technical rational ideology the SAC encouraged (Stråth, 2006). It started to be ever clearer, that in different ways structure and ideology contributed to individualisation, from which an increased technical rationalisation of VET started to emerge. I was able to connect these phenomena to what Vehviläinen's research on student counselling discusses as 'the third way': balancing institutional results with client's needs and jointly agreed upon objects and object-mediated motives (Vehviläinen, 2014, 2021).

3.2.1 Empirical data

Observational data (D1) were produced through notes taken during 29 (N=29) individual counselling sessions, each lasting approximately one hour. In these counselling sessions, the responsible counsellor, the student, and in addition a teacher or special education teacher participated. Here was also one group counselling session of four hours' duration. The group counselling sessions included 20–30 students, their counsellor, a teacher, and a special education teacher. To the data was also added notes from two one-hour meetings I had held with the participants (N=2), and notes from a four-hour workshop (N=1). The notes I made during these observations consist of hand-written text in two notebooks. I made careful transcriptions of the hand-written notes into 85 A-4 pages of text into 31 Microsoft Word documents (written in Calibri font size 11 over line spacing 1.5).

I did one test interview, based on which I concluded that no corrections were needed in the interview semi-structure as such. The interviews (N=12) each lasted approximately one hour, some of them were a little longer, some were a little shorter. The interviews produced data consisting of practitioners' reflections on how the observed themes were reflected in their everyday practice and what their work as professionals was constituted by and what 'took up their time.' The transcribed interview data (D2) consist of 120 (A4) pages of text (Calibri font size 11, line spacing 1.5) that is transcribed from voice recordings. For the voice recordings, a recorder (Sony Olympus) was used. From the recordings, I transcribed the voice to text.

In line with the guidelines of the TENK (2019) all research participants' consent was continuously monitored throughout the research project, and this was emphasised during the phase of data production. Informed consent ensured that the practitioners who were observed and/or interviewed and students who were observed understood that their participation in the research was truly voluntary. At any point in the research process, the participants had the right to receive information about the research, provided that the information not included other participants' or organisations' information that could compromise anonymity. Neither was any information given to anyone about who the other participants were, or what they had contributed. The participants were informed about the data anonymisation and data storage process. They were also given information on research methods, and reporting and how publishing of the results was proceeding and how it was planned to take place in the future.

3.2.2 Data storage

Concerning data storage: The interview voice recordings and their transcriptions were uploaded to a password-protected folder in the University of Helsinki's data storage area, in line with the library's data storage instructions. To the folder was also added all transcriptions of notes taken from the observations and the interviews. The folder is shared with my supervisors (co-authors of the original publications I-III). No open-data access has been provided and nor will it be provided in the future. In addition, the data were back-up stored on an encrypted and password protected external drive, stored in a password locked and fire protected locker. No other copies of the data exist.

3.2.3 Complementary data

The above-described ethnographic data were complemented with openly available policy documents and governing documents about Finnish VET, which was needed to understand concepts described in the data. In CHAT terms, the related documents describe the previous (historical) VET and the present central activity of our scope: student counselling as support for learning and agency in VET. The documents included in the analysis were: (1) Historical Act on VET for young people (630/1998) and, (2) Historical Act on VET for adults (631/1998), (3) Act on VET (531/2017), (4) Regulation Statement (673/2017), (5) Manuals for 'personal competence development plans' (PCDPs) (FMEC, 2018), (6) quality assurance of PCDPs (EDUFI, 2020b), and (7) National qualification requirements of VET in Finland (EDUFI, 2020a, 2021).

In general, these complementary documents were not thematised or coded. Therefore, they were given a 'complementary data' status (see publication III). The content in the complementary data was used to support an understanding of the historical transformation of personalisation and counselling in VET, that CHAT as an analytical framework for the analysis of contradictions requires. The content was read in parallel with the analysis of the empirical data produced for the sub studies on which this thesis is based. The terms used in the document were accordingly compared to the ones found in the data, and they were also related to the research literature on CBT and governing of VET.

3.3 Analysis

The analysis for the research was conducted over three sub studies and resulted in three peer-reviewed publications (articles I-III). Data-analysis was undertaken in two cycles. The first cycle was based on ethnographic participatory observations (Atkinson et al., 2007), with content analysis

(Schreier, 2012) contributing to a broader understanding of the present counselling practice (Engeström, 2014 [1987]). As the analytical framework of CHAT include the analysis of historical transformation of activity, the reason for interviews was to form understanding of (i) the longitudinal transformation of relational counselling processes, and (ii) identification of historical artefacts and tensions in the present central activity (collaborative student counselling) (Daniels et al., 2010; Engeström, 2014 [1987]). Areas of focus and what was left out of the scope, and analysis made upon the data generated through the first cycle is therefore critical at least for the case of reliability. That is the reason I am explaining the above-mentioned issues and episodes in a way that might sound autobiographical or rather detailed. Extensively this was accentuated as part of the inquiry in which ethnographic awareness was used to sense and 'listen' to what was not said, the tacit voices, and, to yet reach out a distant level of trustworthiness (Atkinson et al., 2007).

As a result of the ethnographic fieldwork I had conducted, some relational contours between the practitioners and me as a researcher had been established. The practitioners (interviewees) and I (researcher) already knew each other and had possibly discussed some viewpoints and so on, could have an impact on the interview itself because the questions that were asked during the interviews related to their work. Due to our prior shared experiences, the interviews recorded and transcribed are also considered to be ethnographic data in which I engaged. Therefore, to ensure trustworthiness, I conducted critical and ethically informed reflection on my own contribution and the interview answers at various levels of analysis (e.g., Dennis, 2018).

The second analytical cycle was based on the interview data merged with the observational data. Through activity theoretical analysis, observed tensions and ruptures could be manifested as contradictions of the activity system, some of which now point to fundamental problems with the managerialist approach to professional and relational agency in competency-based VET. This started to point out differences in CHAT-related objects and object-motives distributed over the boundaries of VET's activity system and related systems (like legislation and administration) (see Engeström, 2014 [1987]). At some point during the data production phases and the cyclically evolving analysis process, it started to become clearer that part of what generated distortion and tensions in the observable layer of reality (in which I made observations) was empowered or caused elsewhere. A clarification of thought concerning that related to the research inquiry, and that is now the first step to which I consider as the final analytical cycle made for the article summary (and this thesis at hand) is based on. I will call this cycle three.

Cycle three represents the overall analytical effort made for this thesis summary. The third cycle is based on reflecting the findings from the three

sub-studies to the theoretical framework described (in Chapter 2) and the trends of CBT to the international VET project and institution. Put differently, the aim of the theoretical inquiry, which is emphasised as the purpose of this thesis, is to provide the discussion with which to respond the two research questions laid out in the thesis, reflected to the results of the sub-studies.

The third cycle includes the analytical portrayal of Bhaskar's (2008 [1975]) intransitive domains (the natural and social) and the transitive domain (bodies of knowledge). Also it include the analysis of Archer's temporary dimension (1995) in connection to the portrayal of the natural, practical, and social worlds as spheres that, mobilised in CHAT, reveal new dimensions of the results in sub-studies I, II, and III. This attempts to explore the agentic capacity to generate change in the world by actions facilitating human agency and knowledge. The analysis enables a perspective to be taken through which phenomena (like cause) can be analysed although it cannot be observed, for example the interplay of the structure, agency and culture (SAC) (see Fletcher, 2017).

Concerning the theoretical inquiry of analytical cycle three, I retained four steps as being central: These are (i) analytical dualism (refusal of conflationary analysis); (ii) judgemental rationality (justification of objects in the world); (iii) ontological realism (reality is stratified); and (iv) epistemic relativism (asserting our knowledge about the world is fallible).

Looking at the results from the sub-studies, whilst also critically examining analytical cycles one and two leading to these results, they started to reveal the difference in object and object-motive formed based on knowing on the one hand and knowledge as access to systems of meaning on the other.

Of major importance here, is reason and the theoretically portrayed sphere of mediated motive and relational agency, which are analytically manifested abstractions, not observable phenomena. The way this sphere can be distinguished from the object itself and from the ends the object transform to, are again observable phenomena (Dennis, 2018). To this end, the distortions and critical tensions reported in the results (of publication I-III) in student counselling—a collaborative and shared practice between professionals and students—fundamental antagonisms in the competency-based approach to VET is shown.

These antagonisms start to stretch out from the basic primary form of contradiction: first between the use value and exchange value of an object, then widening to external restrictions between rules 'given' to the activity system and professional standards in its collaborative practice. This is posing the significant challenge of merging managerialist/neoliberal assumptions and structures constituting relational practices, like professional standards. In terms of CHAT, observable actions in the present must be understood in relation to historical transformation, which in the perspective of CR include

the above mentioned four steps (analytical dualism and so forth). In the third analytical step, this is what drew my attention to its origins. The origin seems to be embedded in competency-informed educational approaches, drawing on that from Dewey (1925, 1991, 1997 [2016]) and Kolb (1984) knowledge and knowing start to mean different things (see Biesta, 2010; Young, 2007, 2012). Based on the research questions suggested in the thesis, the analysis holds that the difference between knowledge and knowing cannot be taken for granted in the realm of CBT. The reason lies in its flattened ontology and slippery epistemology (see Wheelahan, 2010).

The analysis conducted in the first two cycles has been accomplished collaboratively, so that the Author has undertaken the preliminary analysis and analysis processes, and that the choices made, and suggested results have been thoroughly reviewed and discussed with the co-authors. The third-cycle analysis reported in this thesis summary is the author's independent work. The sub-studies' findings were published in high-quality scholarly journals.

In the following sections, I have sought to illustrate the level of analytical detail as they have contributed to each of the respective publication (I-III), here below sorted as sub-study I-III.

3.3.1 Sub-study I

The first sub study evaluates how counsellor and teaching professionals portray challenges and opportunities in combining their educational and fundamental conventions with accountability structures in their work practices (see the exactly formulated purpose in publication I, p. 2).

Using empirical data, the analysis was oriented towards a broadly adapted CHAT-inspired reasoning, placing emphasis on the examination of the theoretically derived distinctions between the quantifiable and the unmeasurable in relational activity and its outcomes. In the study, with my co-authors, I examined how the tension between the immeasurable and the measurable is contextualised within counselling, as well as how counsellors and teachers in VET portray counselling in VET.

I had not yet added the notes from the two DBR meetings or the notes from the four-hour workshop to the observational data analysed in the first sub study. The reason is that these had not yet been conducted when I started to analyse the data for the first publication. Hence, the data analysed in sub-study I was: D1 (N=29) and D2 (N=12).

A multitude of themes emerged from the data. To comprehend these themes and to explore them beyond a descriptive vein, the theoretical foundation for interpreting the data was expanded through abductive approaches (Timmermans & Tavory, 2012). At this stage, the theoretical base

was complemented with readings from Gert Biesta (2010, 2020) concerning the quality and meaning of education and how individualisation and ‘learnification’ had changed the focus of education to the measured as ‘evidence’ of quality. Also, it was complemented with theory that revealed how the managerialist approaches of educational governing was based on accountability (Ball, 2012, 2017), and critique of competency-based training as a fragmented and limited epistemology (Wheelahan, 2009, 2015).

The radically explored consideration of ‘problem’ related to the PCDPs as informers about counselling started to be portrayed here, and a tension between the measurable way of arranging education and assessing outcomes from relational practices and what these practices generally were based on from the perspective of the activity started to emerge as critical, even pressing for the counsellors and their students. During the moment at which I began to realise this, I struggled with a growing sense of intellectual inadequacy in relation to what I was confronted with: something ‘developmental’ for the counselling activity with preliminary outcomes at hand. Notably, the merged dataset yielded over 100 themes that were internally highly contradictory.

At this phase, I analysed the themes I had identified alongside the co-reading of five lengthy interview transcripts with the co-authors. Prior to this meeting, we decided on five interviews that were particularly ‘interesting, fruitful, or troublesome’ (see I, p. 9). This method helped me realise that the most pressing tension in relational work was between the immeasurable and the measurable (inspired by Bornemark, 2018a), and we all agreed that this must be the main finding of the first sub study.

What yet needed to be done, was to explain the circumstances and reasons for that theoretically. Finally, and at a rather late stage of the process, after the first round of peer-review, I found that Christopher Hood’s (1995) ‘production mode’ that had set the base for the NPM in the mid-1990s, explained the theoretical relevance of the remaining three abstracted themes (presented in the Analysis section of publication I, p. 8, Table 1). The three abstracted themes were, ‘Instrumental control and quality assurance,’ ‘Targets of measurement and expectations of causality,’ and ‘Immeasurable means.’ The third abstracted theme points out mediated motives of a varied nature that cannot be measured, like the concept of professional ethics of care and relational agency (Edwards, 2007).

3.3.2 Sub-study II

The second sub study operates through a fourfold theoretical framework, the ‘Competency-Tetris,’ not to be confused with the *Tetris*® game,⁵ generally drawing on CHAT (Engeström, 2001, 2014 [1987]), continuing knowledge I had gained from the first sub study. Here, CHAT portrayed a tension between the accumulated economic value in objects generated by the supply-exchange-demand chain and the open-ended horizon that the activity-theoretical object’s various aspects possess. Under the Competency-Tetris metaphor, we gathered four theoretical ways to understand the individualised, competency-based, and managerially governed VET.

As they are reported, these ways were (in II): (1) competencies are commodities of human ability and inform education policies and learning forming fragments of material and economic motives for activity (Han, 2008; Lauder et al., 2012); (2) the operations of competency-based training (CBT) are based on instrumentalism and empirical realism; (3) VET involves managerialist governing; and (4) student counselling and guidance align as pedagogical support for learning whilst neoliberal managerialist assumptions merely emphasise qualification progress. In contrast with the material and economic dimension of object, the mental dimension of object as motive for human activity (Engeström, 2014 [1987]) forms a tension between the economic and the human value of inclusion. In the analysis, we did not neglect the intertwined nature of social inclusion and economy, but to claim social inclusion as a linear connection to the economy and economic productivity in the scope of human capital theory as research on VET tend do (e.g., Asadullah & Zafar Ullah, 2018; Nilsson, 2010) becomes more clear-cut as the definition of inclusion gets narrowed. That is, human capital theory endorses the relation between inclusion and economy as first order causality. The human interactions enabled through social bonds and belongingness to communities undertaken at boundaries and different levels of social involvement are based on trust (Simplican et al., 2015). Human capital keeps silent about that. Thus, the meaning of social inclusion becomes unclear.

In response, the following research questions were formulated: ‘who does inclusion in VET involve, and to what and where does inclusion take place?’

5 In the 2nd footnote in article II (p. 2) we provide the following distinction between the ‘Competency-Tetris’ metaphor and the *Tetris*® game: “The Competency-Tetris should not be confused with the *Tetris*® game, although its progression echoes the game; hence the metaphor. The official *Tetris*® website (www.tetris.com/about-us) provides the following description: ‘The *Tetris*® game requires players to strategically rotate, move, and drop a procession of Tetriminos [competency units] that fall into the rectangular Matrix at increasing speeds [qualification progress]. [...] It might sound simple, but strategy and speed [managerialism] can go a long way!’ (Bracketed text added by the author).”

To the observational data (D1) was here added, in addition to the data analysed in sub study I, the notes from the two DBR meetings we had with the participants (N=2), and notes from the four-hour workshop on individualisation and PCDP arrangements (N=1). In sum, that makes data analysed in sub-study II to D1 (N=32) and D2 (N=12). The following analysis was made on the empirical data merged as an entity.

The analysis made for sub study II followed a systemically advancing movement back and forth between themes emerging from the data and the Competency-Tetris framework. That proceeded as follows: coded themes in the construction of the data were based on concepts that had either a strong and directly emerging theoretical resonance to the Competency-Tetris framework, or the coded theme was based on inductive emergence that was continuously signalled throughout the data. An example of the prior would be data directly signalling those forms of 'behavioural governance' (Fi: *täsmävalmennus*) developed within the theory of precision guidance by Toiviainen and Brunila (2021), which was expressed in the data. However, based on Edwards & Kinti (2010) the language used in such cases is not considered to be part of a neutral expression of practice in a discussion but is considered to be an adapted use of professional language and concept, in this case, from critics of educational psychology. I have dealt with this as a phenomenon of 'direct resonance' with care. This includes a critical analysis of the broader discussion leading to the expression of direct resonance, to ensure the meaning holds as intact with the context (Edwards & Kinti, 2010). Example of the latter (inductive emergence) would be data expressing a concept emerging from instruments and rules related to the activity system, and thus has a tacit theoretical explanation for which resonance was not direct. An example of this kind of 'indirect resonance' can be the 'go forward' pattern (both identified in sub-study II). Related to Timmermans and Tavorý (2012) methodological elaboration, both examples can also be understood as abductive methods: using theoretical concepts to describe data using deductive reasoning, and using data to inductively contribute to the formation of theory in an inductive manner (e.g., Charmaz, 2014). The latter contributes to development of theoretical concept where such is not found in previous research-based literature (Timmermans & Tavorý, 2012).

Accordingly, to strengthen the formulation of the theme that at the same time enabled deeper understanding of the expressions, the pattern between themes was explored via comparison to the theoretical framework (the Competency-Tetris). This cyclical process' result was 25 coded themes. The abductive process was then continued via abstraction and the strengthening of formulation, to merge themes that could be theoretically combined until no further abstraction or re-formulation could be made without weakening the empirical-contextual-theoretical significance. This attention led to presentation

of four abstracted themes: 'Fitting the workforce auction,'⁶ 'Multi-professional support trajectories', 'Qualification measures', and 'Social and cultural learning communities' (see publication II, Table 1).

The abductive lens applied to the finalising phase of analysis made for sub study II contributed to the abstracted themes gained diverging or converging meaning in relation to each other.

3.3.3 Sub-study III

In the third sub study, the abductive analytical approach was used with a more direct link to the concept of activity system than in the previous two sub studies, relying on CHAT as a general research framework (see Engestöm, 2014; Daniels et al., 2010). Here, I attempted to offer both a theoretical and an empirical contribution, as is the case with this thesis. The purpose of sub study III was to 'analyse how different conflicting motives emerge from the ambiguous policy-concepts 'effectivity' and 'needs', which are articulated in student counselling processes as support for learning and agency formation in Finnish VET' and, furthermore, to 'discuss how such conflicts can be valuable for the prospective development of VET as a societal project and institution' (III). Thus, the third sub study included the theoretical reasoning as part of its purpose, not just reasoning on the empirical findings in relation to theory.

The general purpose of using CHAT as the framework for analysis is developmental (or contracting) practice and expertise over complex boundaries—that the research literature also emphasises (e.g., Daniels, 2012; Engeström, 2000, 2014 [1987]), normally including similar attempts enabled through the various 'axes' of the system—including longitudinal transformation of the central activity system in relation to interconnected systems, like administration or rule producing systems.

Like the second sub study, the empirical data coded here consist of: D1 (N=32) and D2 (N=12), but in addition, we also reported on complementary data in the form of governing documents (see 3.2.3, Complementary data).

The reason for the inclusion of the complementary documents was the need to construe a compactly written historical understanding of the previous central activity (collaborative student counselling) and to reveal tensions emerging through transformation over time and boundaries of the central

6 'Workforce auction' is a code used in sub-study II. It is derived from the critique of orthodox human capital theory in the 'skill-bias theory' and the 'global auction model' (Lauder et al., 2012; Brown et al., 2020). The code describes the 'marketplace' where VET students compete for work-based occupations in line with what is planned (as 'personal competence development'). On the other hand, it relates to a public marketplace in which goods or property are sold to the highest bidder. However, the code aims to reflect the complexities of labour allocation in a society marked by job scarcity and structural inequalities.

activity. In the prior articles the historical form of the central activity did not have an equally strong relevance, since in the prior activity-systemic contradiction had no central role in the analysis. Contradictions have a central role in the analytical attempts undertaken here though, and the analysis of contradictions is manifested through historical transformation (Engeström, 2014 [1987]).

A constant tension between the needs people in counselling have, or can have, and the emphasised needs of effectiveness of counselling in relation to economy were identified. According to that tension, having historical roots, we found two questions to be of particular interest. These were: (1) From the perspective of student counselling, what needs are met within VET? (2) From whose perspective is VET effective?

In the analysis, with the co-authors, I set theoretical systemic contradictions as the unit of analysis (see publication III). As I elaborated (in Chapter 2), the concept of contradiction in CHAT is not to be considered as conflicts between subjects or between the standing points taken in our lives related to others, as we normally might tend to do in our every-day life situations. Contradictions are not directly observable; they can be manifested through analysis of disturbances, ruptures, or tensions in the activity system (Engeström, 2000). To reveal contradictions, hypothetical constructions must be formed and these disturbances, ruptures and tensions, must also be analytically confronted based on their inter-relationally and intra-relationally, vertically and horizontally (Engeström, 2014 [1987]). Explicitly, analysis was undertaken considering the various axes of not only the prior form of the central activity and its historical transformation, but also the intertwined and related systems (for example, governing as rule producing system, and policy).

In the analysis, all the data had first been In-Vivo coded, reminiscent of the initial coding procedure known within grounded theory (Charmaz, 2014). A qualitative data analysis software programme (Atlas.ti) was used to assist all phases of coding, as had been the case within all the sub studies. The software was also used to monitor the frequency of the codes: codes grounded in the data and the appearance of codes throughout the data (presented in tables in each publication). As a following step, the In-Vivo codes were sorted and combined into fifteen codes, based on interpreted meaning. As part of that step, the axial relationship between the codes was analysed. The inquiry for this step was based on the meaning that the (axial) relationship could signal and these axial relationships were continuously compared to the axes of the activity system (see Engeström, 2000; Engeström, 2014 [1987]).

In article III we explained this as a 'what happens' pattern (Charmaz, 2017; Engeström, 2014 [1987]) revealed tensions, and relationships between the ruptures, not found in the code itself but between codes. The axial

relationship revealed analytically manifest hypothetical contradictions across the boundaries of the activity (Daniels, 2012; Engeström, 2000). To understand them theoretically, we then positioned the codes with their plausible contradictions. In the same manner, referring to critical ethnography, it is through the axial relationships that researchers' awareness of critical reflexivity must be determinate, both towards their own thinking and towards the theoretical resonance that can sound beyond the directly identified empirical expression of a single code or category (Jordan, 2003). This is what makes analysis of contradictions so powerful but also intellectually challenging. The last step in the analysis in the third sub study (reported in III) was to scrutinise the main patterns to theoretical concepts at the various axis of the activity system to critical theory. In publication III, table 1, fifteen codes are presented.

4 RESULTS

In this chapter, I summarise the main results of the three sub-studies, as they have been reported in publications I, II, and III. CHAT has been applied slightly differently in each of the three sub-studies included in this thesis, as they are then seen through the lens of critical realism for the formulation of the thesis' arguments and results. In this chapter, the focus is on the results from the sub-studies. The slightly varying theoretical perspective alongside the sub-studies depends on their respective research questions, which research-based problem also well highlighted by Harry Daniels and Anne Edwards (2010, p. 1): 'how to capture the generation and mobilisation of knowledge in practices that span different settings.'

4.1 Sub-study I

The argument in the first sub study has been derived from Christopher Hood's contemporary public management (Hood, 1995) also known as 'new public management' (NPM) (Hood & Peters, 2004). Hood's NPM has been used to understand the Western world managerial reform of public sector work, in which focus shifted from input and content to results and output. In NPM, public sector work is reconstructed into a 'production mode' whereby data are provided as 'evidence' of quality (Savoie, 1995). The managerialist account of quality has been argued as accountability, emphasising measured progress rather than processes or content (Ball, 2017). Acknowledging the managerialist approach of accountability to CHAT as a broad sociocultural research framework, remarkable patterns and structures became obvious in the relational object-informed student counselling activity (Vehviläinen, 2014). Due to concepts introduced as individualisation and result-based funding the VET reforms (2018/14) had introduced to VET, major changes concerning student counselling were made and an expansion of personal guidance provided to VET students was a result, seen at various occupational boundaries. We could accordingly identify professionals (counsellor and teacher practitioners) having difficulties merging their fundamental pedagogical conventions and standards of their professional work into structures being based on technical accountability frameworks, the latter set to constitute their practice. This was the main tension, due to which we found a critical imbalance in the activity: the benchmarked measured targets that were explained as the quality of VET did not correspond with what was the quality of inter-relational practices from where agentic actions could emerge (as argued by Billett & Pavlova, 2005).

In the sub study I, this imbalance is explained by the difference between what the quality of the object-informed process is on the one hand and the quantified desire to construe quality of progress on the other. A dissonance was demonstrated between relationally shared motives for co-action based on joint agreements, with presumptions of quantifiable outcomes at the fore.

Quality metrics, i.e., measurement of instrumental outcomes, in VET replaced processes of human encounter with assumptions rationalised beforehand. The results showed a discrepancy between the work needed to attain assessable outcomes when addressing students' need by 'acting in responsible ways' and the individualised and coded expectation of what that need was in terms of measured accountability. Put differently, a top-down driven production procedure was emphasised rather than an object-informed process based on relationally agreed-upon motives: financial incentives and assessments were prioritised over the inner condition of quality of learning. Or slightly differently put, the quality of learning as a pedagogically reflected condition for the quality of education as something 'more' than evaluated measured criteria was corrupted. Accountability therefore addressed an essential aspect of responsibility and prompted practitioners' professional ethical conundrums related to care (based on conceptualisation of Edwards, 2007). Certain acts of counselling processes, defined in quality manuals and governing documents as competency-based outcomes and goals, etc., were made externally visible by documentation, but there were corrupted objects that could inform the relational meaning for counselling. In other words, what might look like a personalised learning process is in fact an illusion based on certain quantified quality-measures of a technical-managerial procedure where relational spheres of learning and agency are not in the forefront.

With the co-authors, I related the results to 'production engineering' as understood through Hood & Peters' (2004) theory of NPM. The measurement approach to accountability became the self-strengthening tool previously 'made' meaningful for individualised competency-based training (CBT) to manifest. Thus, the 'quality assurance' controversy forced a focus on the measurement empowered progression toward the strict definition of outcomes. To provide an example of how this emerged through the data, a counsellor says:

Well, it comes from above, these you know, thoughts of that you can control and govern this and that. [...]

I've always said that the important thing is to build a good whole for the students, a good path and that. [...] On the other hand it [the PCDP] has gone to this overstated you know, the control and like this. I don't think that is the solution now. It's a matter of this contact and the human meeting. I cannot emphasise this enough, and why is that so hard to understand! [...] The reports and the forms that we have

don't really support building-up of this [PCDP] plan either. [...] And maybe it's all that work, that gets frustrating sometimes. When you know what a huge amount of work there is beyond, while it's maybe expected that the focus is only on those targets [in the PCDPs].

(Data extract quoted in I, p. 10)

By way of explanation, the information accomplishment of socio-technical system was fading out underlying elements enabling the emergence of the intended outcome. Referring to Billett (2006) and Biesta (2010), this was concluded in line with how behaviourists reject the human sense of reality and situational contexts, accountability enforces inequalities through a technocratic rationalisation of individual action, where education and relational responsibility for action, i.e., relational agency (Edwards, 2007), are no longer central. On this occasion, the counselling professionals associated the 'personal competence development plans' (PCDPs) of the VET students with a technocratic tool of control that resonates with Säljö's description of a managerialist 'code-based categorising institutional instrument' (Säljö, 2014, p. 235 [N.R.'s translation from Swedish; cited in I at p. 15]; see also Biesta, 2010). Another counsellor says:

Actually, it is the technical expectations that I am frustrated over. Not that one has to plan [the PCDP] but that it doesn't function like that. It's expected like something can proceed just in a certain way, and then [in practice] it doesn't.

(Data extract quoted in I, p. 13)

To this point, a number of professionals were confronted with ethical dilemmas of great social and structural relevance. The dilemmas arose from questions regarding the public expectations of their work conflicting with their commitment to their professional standards and vocational responsibility. Questions pertaining to the increasingly unclear focus but fixed ends of their practice were raised: the future of VET and their workplaces was unclear; their students' well-being as people and human beings, not as 'customers,' was a real concern; the culturally formed agreement on what the quality of inter-relational practice was required for their students to deal with real-world work (and what knowledge was required); and which affordances gained dubious resonance in the strictly defined standards and measures both in the educational accountability framework that was interconnected with the NQF and the national qualification requirements and local qualification units.

The measurement approach produces structures of accountability through which the system shows quality outwards simultaneously as it depletes agentic relational processes inwards.

4.2 Sub-study II

In the second sub study, reported in publication II, CHAT was blended with critical realist perspectives to human capital theory (Brown et al., 2020; Lauder et al., 2018; Lauder et al., 2012; Han, 2008) and Bhaskar's critical realism (1998; Wheelahan, 2009) further extended with Wheelahan's (2007b) and Young's (2012) sociological argument of 'powerful knowledge' (see also, Bernstein, 2000; Durkheim, 1984). In the centre of the fractures that could be understood through these perspectives stood the emerging neoliberal foundations of the knowledge economy (or knowledge capitalism) on one hand, and objects that could be considered as meaning makers for humans, on the other. This perspective was inspired by the results from sub-study I, although the tension between rationality and relationality was now related to inclusion and economy. Based on reading of the critical realist perspectives of the knowledge economy, it appeared that a concept of human knowledge more manageable than the holistic perception of knowledge was required, and here the competency-unit(s) was or were readily made to fit as the atomistic and commodified bit of knowledge, serving the growing interest of educational policy to change the role of education (see, for instance Allais, 2014; Han, 2008; Schaffar, 2021; Wheelahan, 2009). The main argument in sub-study II was that managerialism combined with CBT generates a structure that forms education in line with neoliberal market demands, directing both its quality and price (II, p. 4).

However, manageable individualised training and the managerialist approach to accountability together seemed to merely focus on the empirically observable outcome and its assessment, abandoning renegotiated object-motives and meaning for the subjects as part of spheres of relational agency (Edwards, 2007) and reality-based foundation of objects (Wheelahan, 2009). To understand that tension better, relocated as concepts emerging from the data, a reality problem emerges from the perspective of critical realism. Critical realism had also been setting the base for heavy and globally raised critique of competency as an informer of education (Wheelahan, 2009, 2010; Young, 2007, 2012). That perspective taken showed competency-based training in VET to be widely vested by human capital doctrines: object-informed motives for social inclusion became increasingly unclear and the results provided further empirical evidence that orthodox human capital remains silent about essential elements in the complex relationship between knowledge, education, and the labour market in the first place, and in the second place, interpersonal human relational agency. That is, blurring the way in which humans connect to the world and to each other.

To this point, the main results brought out in the second sub study (publication II) were that the human capital inspired individualist ‘earning of competence’ approach enhanced a ‘go-forward pattern,’ which was used to separate students from each other. Students identified with ‘limited self-governing skills’ that was shown as the ones in need of professional-pedagogical support in their learning or in need of other professional support trajectories (psychological or therapeutical) to ‘deal with their lives’, in one group, and in another, the ‘high performers’ i.e., the self-governed learners that could ‘take care of their own businesses’ at the work-force market-place, became separated from each other (II, p. 8). To provide an example, a counsellor says:

Instead of thinking about the competence points [credentials] I think that having a group of 20 students, all will be different. We might have five [students] who really manage to learn quickly, not exactly as the “go-forward” pattern looks [shows quotation marks in the air], but who manage to do well. We’re putting them out there and into work [workforce] because they are the ones the workplaces need. They can be given that special knowledge! That little “extra thing” which can’t be given here in the school.

Researcher: Is that how it works?

Counsellor: Yes. They [workplaces] want the high performers: those they can supervise ... The VET reform provided these kinds of opportunities.

(Data extract in II, p. 9)

Inclusion in and through VET, as well as the concept of equal learning for all students, consequently made a U-turn as the commercial significance and economic mobility of competency-based qualifications consolidate their grip. Qualification measures were separated from professional and relational communities, and this was shown as materialised through the measurement-match between individualised perception of needs and local competency-based goals. Specifically, students’ ‘attitudes and adaptability’ were considered to be critical aspects of having the power to either disable or enable entry to occupations for which ‘earning of competency’ could materialise (p. 10).

Although the primary objective of the aforementioned Finnish VET reforms was to meet the needs of students or to match the needs with those of the workforce, few comments in the data addressed how collaboration across these boundaries materialises or is sought to materialise connected to subjective and relational aspects. A teacher explains this as:

What has continued to surprise me for 20 years now is how little the workplaces are ultimately involved in VET when questions are discussed concerning how we are going to change and how we are going to learn.

(Data extract quoted in II, p. 8)

According to human activity and collaborative practices across boundaries (Engeström, 2014 [1987]; Edwards, 2007), the ‘Competency-Tetris’ promoted social engineering assumptions and calculated credentials; occasionally ‘earning of competence’ was rejected as a practice that utilises relational processes to ensure people are learning how to work together. Learning then became biased by individual outcome measures, and the cultural community of learners separated into smaller groups of individuals, which was promoted as the ‘go-forward engine.’ At the same time, emphasising ‘the economic value accumulated in competency-based qualification,’ the notion of educational competency here lapses into what is culturally and vocationally considered to be ‘real’ competence, based on knowledge and agency. In particular, teachers having student counselling roles are concerned that students can ‘show competency without knowing’ (see II, p 11).

However, the more inspiring result provided by the second sub-study was the clear sounding resonance between how economisation of VET has emphasised the exchange value of objects of human activity whilst the use value of objects has become ever harder to grasp (for this concept, see Engeström, 2014 [1987], pp. xvi-xvii). To the concept of an object-informed motive as a former of relational agency, the results of sub-study II confirm Engeström’s discussion (2018) on that the use value of an object cannot vanish: ‘people ultimately seek dignity, mutual respect, social generosity, which can all be approached as part of, within, and through VET’ (II, p. 14), although the accountability approach seeks to diminish these in-human and inter-human values and boundaries and spheres of the world-human relation.

4.3 Sub-study III

In the third sub study, the ambiguous policy ideas ‘need’ and ‘effectivity’ introduced to VET (see FMEC, 2017c; Korpi et al., 2018) are further problematised. The concept of an activity system in CHAT was used for the analysis of historically accumulated tensions found as emerging within and through interpersonal counselling practices in VET. Within the practices, managerialist approaches to accountability and competency-based training generate a conflict of mediated object-motive responding to the ‘distinction between the needs of people in counselling on the one hand and the effectiveness of counselling in relation to the economy on the other’ (III, p. 3).

Through VET’s counselling practices, different interests and affordances are emerging, expanding the contradictions to related and interactive systems. Considering student counselling has motives in human learning and development, renegotiated objects are understood as communally generated

horizons of meaning that can be used to construe relational agency (Edwards, 2007). The counselling professionals express the view that no tools are available for this:

Counsellor: I do understand that it's not so easy with the combination of individual solutions in combining everything, school-based and work-based learning . . . and all this, but for us it's a matter of tools. We don't have any tools.

Researcher: You feel you cannot get a holistic understanding, or an overview?

Counsellor: I do not have that, in that way, I am not really allowed to work as such, directly. There is some [P]CDP that might have some function, but I cannot see what should be done with that! Though it's all the work beyond the PCDP informing what I should do [with learning and counselling] and it [the PCDP] doesn't support that work.

(Data extract quoted in III, p. 14)

The main results brought out in the third sub study (publication III) were the empirical evidence showing the emphasised instrumental value of an individual in Finnish VET, and further, in society. The empirically assessable 'atomistic events' (Wheelahan, 2012) in activity were problematic both as constituents of learning but also as weak informers of meaning for the inner processes in education. The portrayer of atomistic events was important for measurement of institutional production (accountability) and to show measured proof of individualist achievements in studying and in professional work. Looked at through Wheelahan's (2012) critique of 'atomised bits' as locus of CBT, the 'fundamental antagonism' between relational reasoning on need and rationalised goal—which also is comprehensive as activity theoretical contradiction—is what then starts to produce what publication III claimed as 'the grey zone.' The grey zone found in the third sub study is much the same area Engeström (2000) described as leading into the manifestation of a 'double bind' situation: bearing no alternative for action that could be undertaken for the solution of a contradiction starting to be external (viz., not just about relational processes but about the conflict between external structures and the subjects). In the results of sub-study III, this was the dead-end when the 'technological tool of professional action and learning outcome' (p. 15) could not inform responsible actions in the situation. A counsellor explains this:

The whole setting is very strict right now, and I do not put my faith in what we are doing now as being good at all. I do not think it is individualisation we need. What I do think, is that there is a safety in being seen as a student, and that the exceptions are quite clear ... And the more we are managed to do individualisation and all these kinds of things, the more unclear everything becomes for everyone.

Everything just starts to be really vague and really weak [...] There's no such thing [as a correct way]. It is *the grey zone*. If you go according to the manuals showing the 'correct way' it doesn't work.

(Data extracts quoted in III, pp. 15-16, N.R.'s emphasis added)

To meet the needs of their students, counselling professionals were forced to either violate the system's rules (of Acts and quality manuals) or break the joint agreement made to meet their students' need. This is not a standard argument; rather, the expressions in the analysed data that led to this conclusion indicate total exhaustion of the relational-structural boundary: professional burnout, fear of crime, and even worse. Management manuals offer no assistance for such issues. As a result of reducing problems to pre-packaged, generalised solutions, the inflexibility of standardised manuals can occasionally even worsen the situation.

The double bind arose when the historically accumulated conflict began to have consequences for the motives of counselling, namely that an individualised goal set for activity (e.g., students' competency unit to be attained) conflicted with 'the actual need of a person,' which was an object-mediated motive. Professionals referred to this as a 'lack of tools,' whereas the administrative grip on their relational activity (the shared activity boundary) increased the emphasis on planning, control, and documentation. Teachers with counselling responsibilities were especially concerned that the previous syllabi/curriculum system in VET for young people emphasised theory and teaching was kept separate from 'practical' training and that this was due to CBT having been reduced to one form of 'learning in practice' approach supported by guidance of self-regulated learning in workshops and at work, as well as the control of these so-called 'procedures.' A teacher expresses this in the following manner:

There's a lot of talk around 'knowledge' but then we should focus on learning, providing opportunities to reach knowing. Although the focus is on guidance of 'doing,' and it is said that teachers are not needed [due to self-regulation].

(III, Code 10, Table 1, p. 12)

The problem becomes that the commonly portrayed knowledge-laden portrayer of co-objects, to which students and professional together could connect, vanishes. The results of sub-study III indicate a structure-to-action generated causality, with the result that counselling became skewed to concentrate on individualised goals and fragmentary tasks while respect of students' (or counselees') human uniqueness is needed. This led to the expansion of the contradiction to the related activity system, between the regulation producing activity (VET's governing and administration) and the central activity (student counselling). The possible cultural transformation of the activity, which could elaborate knowledge and construe new object-

motives, and transform collaborative human encounters and relational agency, risks being contracted to culturally more primitive forms, i.e., in CR known as structural reproduction, morphostasis (Archer, 1995). However, human uniqueness and an individual's personal needs cannot always be expressed in words or measured as a rationalised category, although the jointly agreed-upon way the need can be met may still be rational for the individual. Due to the absence of accountability for these life and socially inert unstable and fragile spheres, the issues they emphasise, like meaning, were disregarded. In other words, what could not gain resonance as 'direct and tangible competency' and neither addressed issues planned to be included in the students' qualification nor be considered as some things that could be documented as 'personal competence development' were widely ignored.

It is not a coincidence we call for a democratic discussion in the discussion (see III, p. 19) regarding the meaning of VET, competency-based education merged to accountability has to be problematised if a just society is desired in the future. This democratic discussion must include VET professionals, practitioners and students, who, according to Billett (2014), have been neglected for quite some time.

5 DISCUSSION

The purpose of this thesis has been to analyse empirically observed events in relational practices in competency-based VET to theorise about the premises for learning and spheres of relational agency in relation to justification of knowledge. The research questions formulated in response to the purpose concern how the premises for relational agency and conceptualisation of learning are created through student counselling activity in CBT informed VET on the one hand, and to the question of how knowledge is justified in competency-based VET on the other. This chapter concludes the results from the three sub-studies reported in publications I, II, and III, and reflects the results on the theory and the broader philosophical framework portrayed in Chapter 2. In the discussion I will also reflect on the trends identified in contemporary VET and its policy and reform to scholarly concepts they gain resonance in.

The main results presented in the sub-studies are examined in the following orientations, answering mainly the first research question: (i.) Measurement and accountability de-emphasise unmeasurable dimensions of relational practices and their immeasurable spheres of meaning (sub-study I); (ii.) Inclusion in VET is emphasising techno-economic rationality and the individualised neo-liberal subject, the workforce auction's needs in the forefront, whilst the relational practices in VET start to require inclusion to concern human encounters based on dignity and social generosity (sub study II); and (iii.) Technical rationality of 'individualised goals' providing measured accountability skew the focus of inter-relational practices and 'actual needs' to categorical ends and fragmented tasks, whilst recognition of human uniqueness is needed for a more just society in the future, the emphasised economic and instrumental value of individuals in society is and must be further critiqued (sub-study III).

These orientations hold one thing in common, which is the empirical result of this thesis' three sub-studies. That is, an orthodox structure-to-action-assessment mechanism in the competency-oriented VET is keeping fragmented epistemic spheres of prosperity at the forefront while professionals acknowledge the need for relational agency and broad knowledge to be effective and fair. The emphasis on a particular type of instrumental assessment creates unequal access to learning occupations on the one hand and generates a distinction between the cultural and educational notion of what it is to be competent, on the other. The latter part is overlooked since intrinsic and immeasurable spheres do not provide accountability as based on measurable entities. The

primary condition for accountable performance via relational agentic action therefore fails to materialise.

Now the three main points emphasised as the results from the sub-studies do not particularly structure this chapter. Rather, they appear as recurring patterns in the theoretical reasoning undertaken below, analysing knowledge and agency in relational practices, like student counselling in VET. This is aimed at answering the second research question, i.e., the theoretical inquiry emphasised in the research purpose. In so doing I have paid some attention to the trends and ideas in contemporary VET that gain resonance in how knowledge and agency can be theoretically understood and how relational agency as an educational concern must be formed from knowledge and through interactions with the world. This relates to the vocational skills-assessment approach in Finland seen in relation to David Kolb (1984), based on Virolainen's (2023) review of VET undertaken for Cedefop (2022).

The discussion that follows is organised around knowledge and relational agency in VET, structured by the themes, Social engineering and the horizon of uncertainty (Section 5.1); Competency-based VET and the experiential approach (5.2); Skilful practices and the marketplace (5.3); Object-motives and the role of knowledge for agency (5.4); and The ego-centred rationality mistake: a conclusion (5.5). This chapter and the thesis are concluded with Limitations and suggestions for further research (Section 5.6). In the next section, I reflect the above-described three result orientations to the historical development of VET, or rather changes made to it.

5.1 Social engineering and the horizon of uncertainty

Pauli Kettunen's (2013) assertion that the state's fear of falling behind had oscillated VET's purpose and goals for more than a century is still quite valid, it appears. When examining the sub-study results from Kettunen's (2013) point on 'the horizon of modernity,' I find that it identifies the desire for future economic productivity whose source of empowerment is placed on the shoulders of each professional in VET and particularly on each VET student, their tightly described skills and competencies being '(I)earned' through the completion of tasks and how these are managed and measured (which is what the results from all the sub-studies have brought out). With modernity in focus, it seems that future prosperity is speculated on through the concept of skill and 'skills management' (Cedefop, 2015) while students' subjective needs and their potential for new thought and professional development alongside object-informed relational boundaries are purged from structures of political and economic nature. Powerful NGOs (such as Cedefop/OECD) view the

content and curriculum of schools as out-of-date, necessitating a focus on constant change. For political validity the suggested changes are based on educational measurement and datafication linked to monetary speculation about its outcomes and comparative shaming. The sub-studies to this point confirm Brown et al. (2020) and Lindblad et al. (2018) as well as Sääntti et al. (2021) and Mertala (2021).

The educational investment in the prosperity concept does not make CBT more or less legitimate *per se*, but it does reveal the technical rationality emphasis within VET. It appears that competency-based VET is instrumentalising relational practices based on empirical assessment, with the ‘techno-economic’ (Virkkunen et al., 2010) focus in the foreground (confirming Schaffar, 2021). This is the focal point of the proposed result-based orientations associated with orthodox human capital-oriented accountability measures of performativity. The results from all sub-studies demonstrate how the technical rationality of interpersonal work was completed in VET, rationalisation led to moral dilemmas and no-win situations in relational encounters of counselling activity: A difficulty in comprehending what the subsequent situation will bring about emerges at the systemic level as between subjects and their shared objects (sub-study III). However, these are the main constraints.

Beyond this, justification of knowledge as viewed through the theoretical lens presented (in Chapter 2) reveals social reproduction and the potential for social differentiation based on the Bernsteinian concern about limited access to knowledge and conceptual systems of meaning (Young, 2007, 2012; Moore, 2007). Bernsteinian perspectives in the critical realist school of sociology in education are the pedagogical discourses: the distinction between everyday knowledge and theoretical knowledge, also referred to as horizontal and vertical discourse (Bernstein, 1990, 2000; see also Nylund et al., 2018). I will assert that due to CBT and the techno-economic instrumentalization doctrine, VET in Finland may be simultaneously less educational and less vocational. A historical perspective is required prior to underpinning this claim. In the two paragraphs that follow, I will go into further detail about that.

Kettunen (2013) analysed policy and the policy debate around VET and concluded that it is in flux; more in flux than any other type of education in Finland. He notes that ever since the establishment of the first vocational school (in Helsinki in 1899, see Laukia, 2013), Finnish VET has balanced an approach focusing on how industrial demands for trained workers is met with one promoting people’s socialisation and cultivating discipline as working-class citizens (Kettunen, 2013, 2001). He says that Finland has not stressed the societal ‘upward mobility’ that has been a focus of the policy of VET in the other Nordic countries. He argues it looks like Finnish VET has sought to uphold current labour-power relations (see Warmington & Leadbetter, 2010)

by emphasising the desirable outcome of VET as the working-class citizens' identity, pending structural vocationalism on the one hand, and manageable and disciplined workers on the other (Kettunen, 2013). This relates to the focus on skills and competency and the 'market relevance' dominating Finnish VET (discussed by Nylund et al., 2018). To put it another way, a policy preserving VET's separation from educational strategies perceived as focusing on general and vertical knowledge (Bernstein, 1990) is connected to epistemic access of codified knowledge and the understanding of systems of meaning (Young, 2012). In this way VET in Finland has been distanced from emancipatory educational perspectives in two ways, by the 'market relevance' focusing on empirical assessability as an issue of accountability (see Miettinen, 2021; Pietilä & Lappalainen, 2023; Kontio et al., 2019; Schaffar & Uljens, 2015) and by the cultural deviation of skills and competency from vocationalism as way to connect to the world (see Tyson, 2017). This gained widespread acknowledgement of the criticism of CBT as a form of 'controlled vocationalism' (Wheelahan, 2007b). As a result, social class has continued to be reproduced (see Archer, 1995) through VET in Finland rather than upward mobility through it being stressed by policy and administration (Kettunen, 2001, 2013).

In VET, these roots stretch back to the latter part of the 20th century and the uprisal of the orthodox human capital ideology that led us to believe that skills are the unquestionable foundation of vocationalism or professional work, securing economic growth and the continuity of the welfare state in the days to come (see Brown et al., 2020). For more than a century, the demands on the state to meet modernity efficiently—a purpose to this point elevated beyond any conflict of interest—has been the driving force behind the transfer of VET's goals (Kettunen, 2001). Namely, modernity serves as the hazy future vision used to instil a 'crisis' sense of awareness and feed the nation state's widespread 'fear of falling behind' to be met by VET reforms and management of workers' abilities (Kettunen, 2001, 2013, cf. Cedefop, 2015; OECD, 2010, 2021).

Given this short historical reflection, by mirroring national policy on a worldwide scale, Ball (2017) demonstrates the parallels between powerful NGOs and policy networks influencing how education is regulated nationally, with a focus on the future prosperity of individuals compared to economic success (or failure) in the global marketplace (Ball, 2017). Today in Finland, we are concerned about competencies via PIAAC and other comparative assessment models in a way that can be compared to the decline of PISA scores. This may serve as a good illustration of the aforementioned notion that what is evaluated as valuable for policy must be presented with comparative numbers to be considered to be of importance, and by providing resources for rectification, policy may then remain silent on the rest (see Lindblad et al., 2018; Säntti et al., 2021). Indicating some of the problems related to this,

Gorur (2016) problematises the focus on future prosperity by the measurement of individual abilities in the past. By comparing the global policy-emphasis on human capital theory like in aforesaid ‘skills management’ (Cedefop, 2015; see also OECD, 2021) ideas with the changes made to VET in Finland (in 2014 and 2018 reforms) it becomes obvious that comparative measurement of performativity, individualisation, instrumentalism, management, competency, and accountability, are strengthened by a desire for higher yield (see Finnish Ministry of Education and Culture [FMEC] 2017b; 2017c, 2020b). In the sub-studies, counselling and teaching professionals in VET signal they have no capacity to respond to that, because of a constant lack of time and tools for the portrayal of their students’ situation. They felt pressed to manage technical fragments of CBT instead of engaging with their students, anticipating their realistic possibilities, based on pedagogical reflection in a professional manner. Nonetheless, the problem is more systemic than that; since these professionals are working in VET and their students are also in VET, for at least a limited amount of time they should have time for pedagogy. Lack of time for pedagogy therefore appears to be a matter of structural priority, not self-regulation.

The sub-studies revealed this ‘lack of capacity’ i.e., structural priority, as increasingly apparent due to the economisation of education (investment of money associated with speculation of return) and individualisation. That is, CBT strengthens its singularity and boost an artificial fragmentation of occupations for instrumentalised learning. One concern the professionals emphasised was that students can ‘show competency’ in skills assessment tests without ‘knowing’ (sub-study III) and the present structural priority seems therefore to be preventing students from taking control over numerous crucial decisions affecting them and their lives, resulting in social reproduction (based on Archer, 1995, 1998, 2020). In regard to the sub-studies, the intrinsic value of knowledge is downplayed in a culture in which accountability determines what is desirable on the one hand and the occupations that enable students to engage in experiences on the other. An overestimated focus on management and accountability dims the meaning of relational practices (sub-study I).

However, just as in PISA, both orthodox human capital theory (Brown et al., 2020; Lauder et al., 2018) and the related ‘global auction model’ (Lauder et al., 2012) keep silent on both subjective values and personal restraints, adopting a linear singularity between VET and skill, and skill and economy, via which the monetary value of skill is generated for the individual through VET. This is occurring whilst unfair power structures like class, gender, racism, and many other things having significant impact on how skills are exchanged to profit are ignored (confirming Brown et al., 2020).

Especially sub-study II’s findings demonstrate that the theme ‘workforce auction’ has a profound effect on the foundation of VET, selecting students

for admission into work-related environments on the basis of their abilities and attitudes rather than their desire for learning, i.e., the capacity to portray relational meaning of different situations in the world ('of work'). Thus, CBT not only causes narrowing via the materialisation of action-oriented entities, but it also generates inequitable structures through its materialisation. To this point, VET professionals are expected to be oblivious to the structures, e.g., 'the go forward engine,' while simultaneously feeling the breath of the local society on their necks and lacking the tools necessary to meet societal expectations of their professionalism and public (cultural) responsibility. This point is particularly apparent in all the sub-studies.

By the unequal social access to work-based occupations found in sub-study II, one student's world is doomed to failure while another student's world might shine with success, with the structure-agency interplay causing them to be separated even during their training, in VET. The destiny and meaning for students as subjective human beings and professionals in VET vanishes and CBT turns many crucial decisions affecting their destiny and agency into merely not theirs own to take, despite the rhetoric on 'dynamic' and 'effective' (Korpi et al., 2018; FMEC, 2017c) which too, indeed, can mean many different things. That is why the democratic discussion on VET's effectivity and 'dynamic customer approach' must continue to ask: for whom?

To elaborate further, also providing answers to the research questions, on behalf of the theoretical inquiry, I will compare the results of the sub-studies to the broader standing of competency-based VET as described by Cedefop (2022), Korpi et al., (2018); and VET practices in Finland as analysed by Virolainen (2023), Karusaari (2020), Paaso & Maunu (2022) and others. Recent revitalization of the theoretical branches of John Dewey and David Kolb has led to the emergence of a distinction between knowing and knowledge as well as a divergence between the sociocultural and educational conceptions of competency.

5.2 Competency-based VET and the experiential approach

John Dewey was passionate about social equality and democracy fostered by education, and he aligned his pragmatist experiential philosophy to both ideas (Dewey, 1997 [2016]). In Finnish VET, Dewey's concepts are compared to CBT, presented as addressing the situated problem and the authentic vocational work task for learning (Virolainen, 2023). Virolainen noted that David Kolb's ideas (see Kolb, 1984) have influenced VET in Finland, and based on the theoretical lens taken in this thesis, if that is the case, I can only partially agree that this is

a good thing. Nonetheless, according to Virolainen, in relation to Kolb's learning cycle now, the vocational skills demonstration approach is the epistemology of Finnish VET for the time being and for the periods when the ethnographic work then analysed for the sub-studies (I-III) which results provided here were conducted (i.e., 2019/20, see Chapter 3), is problematic. The competency-based education policy asserts that the CBT approach overcomes the separated nature of the theoretical and vocational orientations, also theorised as the academic/vocational divide of VET (cf. Nylund & Virolainen, 2017, 2019; Nylund et al., 2018). Despite claims that the experiential approach bridges the divide between them, their conflation is not necessarily what we need. But for a more just society, it should be ensured that education does not lock anyone out of access to theoretical orientations in their thinking.

Little is done in Finland to prevent social reproduction based on the divide, but rather, reproduction is facilitated (see Kettunen, 2001, 2013; Onnismaa & Pasanen, 2020; Isopahkala-Bouret, 2013; and Nylund & Virolainen, 2019). The results of the sub-studies indicate that the CBT approach is also problematic in relational practices in VET due to an overemphasis on outcome that diminishes the manner in which meaning is conveyed to professionals and students who are attempting to act responsibly in a complex world. By focusing on the effective attainment of training outcomes or other measured entities described as emerging along the individualised students' 'path to qualification,' there is little time for the reflection that Kolb and Dewey would consider to be educational, 'leading to knowing.' This is because the accountability doctrine is behind performativity, despite the emphasis on efficiency in (l)earning central to the ideas of CBT in VET in Finland.

Another issue related to this is the epistemological flaw in Kolb's model, showing that a kind of 'psychological reductionism' of Dewey's epistemology takes place, which Reijo Miettinen describes as following: 'When the romantic biological and therapeutic ideas of humanistic psychology are combined with it [Dewey], a thoroughly individualistic conception of learning emerges' (Miettinen, 2000, p. 70). Some two decades later, in CBT, the connection to Biesta's articulated risks with 'learnification' and 'individualisation' could hardly fail to be portrayed here.

The emphasis on technical rationality and instrumentalisation has been critically analysed and discussed in the sub-studies (I-III) in terms of that measured quality, responding to accountability can be shown outwards whilst relational processes deplete inwards (empirically confirming Bornemark's [2018a, 2018b] discussion). At the heart of this misguided belief of control, relational agency is reduced to something that I and my co-authors (in publications I-III) have been comparing to Biesta's perception of 'a technological view of professional action' (Biesta, 2010, p. 42). Now this does not directly occur

as a neutral problem that professionals in their work face, like ones we might face in our professional lives when there are distortions and tensions occurring to us in a direct sense, on an every-day basis. Rather it is the generated focus on instrumental outcomes needed to show ‘measured evidence’ on accountability whilst skewing the practices toward instrumentalisation, yet where other kinds of needs are of ethical and empathic nature, emerging between how we connect to each other as human beings and our relation to the world. What does not provide such measures is ignored, and as a result, relational agency contracts to some technologically informed ‘progress’ (see also Vehviläinen, 2021) i.e., the go forward engine (sub-study II & III), pushing performativity that cannot meaningfully be considered to be a process empowered by object-motives and spheres of relational agency. To this point, CBT relates to Dewey in a fundamental way, by re-shaping the way we understand the world by the effect of our actions upon it.

As to elaborate. Bertrand Russell (1946 [2004]) explains that Dewey’s pragmatism and its allegiance with the Darwinian biological functionalism means judging ideas and theories by their practical effects and abilities to aid problem-solving and adaptive action. In this sense pragmatists argue that knowledge evolves via active involvement with the world. Miettinen (2006) concludes that Dewey—whilst paradoxically paying his debt to everyday experience from practical tasks—does not include the significance of tools, culture, or historicity in his thinking. Dewey advocated for an education that was practically relevant and sensitive to individuals and society by bridging practice and theory. However, Miettinen shows that his ideas reduce them into one that can be evaluated by empirical methods alone (Miettinen, 2006).

Connecting this to the research questions, from the theoretical and philosophical perspective here taken, CBT’s focus is on ‘the practical’ and ‘what works in practice’ which is what one may conclude from a CR informed analysis that will be identified as events located at the empirical domain (Archer, 1995; Bhaskar, 2008 [1975]). This event equals the observable and measurable fragment of the activity theoretical object (Engeström, 2014 [1987]), which therefore suggests extensive problems with the justification of knowledge and our belief of truth based on causes. CBT becomes problematic, because in connection to pragmatism, it can rely on a slippery adjustment of any effect to a truth based on effects of our action. At least in my understanding, that is also the reason Biesta (2010, pp. 37-44) discusses issues based on which we may want to consider Dewey’s transactional theory of knowing (1925, 1991) to be about that: knowing. And not so much about knowledge (see also Wheelahan, 2023).

Kolb (1984) connects to this, drawing upon Dewey’s experiential philosophy and pragmatism, but through connection to psychologization of learning Kolb connects Dewey to what we now can identify as the ‘individual capabilities’

approach (Miettinen, 2000). Reflection, according to Dewey, sought to connect contextual actions to situational constitution, whereas reflected experiences led to ‘decontextualised knowledge’ construction and agency, but un-reflected experiences remained as such. Dewey emphasised in his writings that the experiential model does not consider knowing as something to take for granted but also, that it doesn’t require knowledge to have agency to act (Dewey, 1991, see also Biesta, 2010, 2020). Contextualised and decontextualised spheres of knowing can be linked to the Bernsteinian pedagogic discourse (Bernstein, 1990; Young, 2007, 2012; Wheelahan, 2015) in that only decontextualised and therefore to some extent generalisable and abstracted knowledge, if including justification of truth via pedagogical method, enables us to think ‘beyond’ the situated event. Taking the Bernsteinian perspective, that is, the ‘not-yet-thought and unthinkable’ which has been concluded having no role in CBT (Wheelahan, 2010, p. 2; 2007b).

In Kolb’s experiential learning theory, an iterative reflection loop beginning with participatory activity where problems are encountered takes place, followed by reflection on actions-consequences, abstraction and conceptualisation of learning (i.e., decontextualisation of experience). Nonetheless, Dewey and Kolb share the view that pedagogical reflection must be inspired and led by professional pedagogues. This relates to the results of the sub-studies based on the difference between how object-motives are conceptualised and what meaning is attributed to objects, or failed to be attributed, via the counselling process (i.e., the relational subject-object interplay). Allowing action without knowing in VET not only lacks prudent deliberation and relational agency, but it is also hazardous in various ways (this goes for both seemingly ‘hard’ professional knowledge, like in electrical engineering, and for professions with a high-level focus on relational aspects, like health care). Therefore, the experiential approach in VET is partially successful, but it cannot be the prevailing assumption. My argument is that VET students must be ensured that they have knowledge of something that they will then portray in practice. And that they have been given at least some capacities to consider what that knowledge means in the context of the specific situation before being inspired to act in it. This is precisely where the concept of relational agency and the interplay between professionals and students and the object are important, and apparently difficult also. I will delve a bit deeper into the difference between knowing and knowledge by comparing the Deweyan concept of knowing to objects and activity-dependent object motives as concepts in CHAT and CR.

Biesta (2010) explains that, gaining importance here, Dewey’s transactional theory of knowing, also comprehended as instrumentalism, does not include relational analysis of what the world is but is limited to the perspective of what our actions in the world come to gain in terms of observable consequences.

That is, instead of aiming at judgment of the situation by its causes, stressing its past occurrence (materialism) to one judging based on beliefs or observation of its effects (instrumentalism). Considering the interplay between strata in CR that the question must not be as much about ‘what works’ as it must be about why and caused by what or whom (Sayer, 2000). In developing the theory of the reflective learning cycle based on Dewey’s philosophy of experiential learning, Kolb’s (1984) ideas are now revitalised in VET via CBT. Kolb’s reflective learning cycle is said to be part of the standing of contemporary VET in Finland (Virolainen, 2023). If we are to pay our debt to Kolb, it must be acknowledged in the practice of teachers and counsellors in VET that reflection on action for learning, and not only assessment and accreditation of competency/skill in action, should be the focal point. In none of the sub-studies had I been able to observe reflective practices in the manner of Kolb, nor has reflection been mentioned in a way that could have been considered to be related to Kolb in the data analysed in the sub studies. Indeed, this might be an issue of further research to seek to identify and analyse.

Moreover, as Dewey’s pragmatism and Kolb’s elaboration of it toward constructivist assumptions have underpinnings that are articulated within policy but might not gain resonance, at least widely, in the relational practices the results this study are derived from. It seems, to this point, that the sub-studies’ results reveal an ambiguity in the Finnish case, which is no exception to global VET reform in particular (according Wheelahan, 2010) and the rhetoric endorsing managerialist educational policy in general (as discussed by Biesta, 2010, 2020; Ball, 2017). Wheelahan (2010) argues that the implications of CBT are neither as practical nor as liberal as they are claimed to be in the policy debate. This claim can be considered empirically strengthened by the results presented here in the sub-studies; the skewed focus on categorical ends, atomisation of practices and agency, and generative mechanism thereof, all of which spin towards contraction of relational agency and fragmentation of knowledge to merely concern the empirical/practical domain.

To some extent, research has a normative role for educational policy, and I wonder if Virolainen’s claim (2023) that CBT in Finland is based on Kolb reinforces the actual problem with educational individualisation and rationality in CBT, given that there appear to be no financial or any other incentives for making reflective experiential practices successful. Perhaps the experiential account is suggested in retrospect for the underpinning of a CBT epistemology that is either lacking or has been heavily criticised as aggregated (picking one thing here, another there, based on what works) (Wheelahan, 2010; cf. Cedefop, 2022). However, enabling further implementation of CBT to other educational settings too, argued as a cost-saving measure, places an excessive amount of reliance on self-directed learners.

To sum up. The distinction between knowing and knowledge indeed raises the question of how knowing relates to knowledge and agency. But it also legitimate that further questions must be asked about why VET is expected to rely on CBT, although by now, we should be aware of its orchestration of splintered bits of experiential tasks and effects of individual actions seeking to adjust what is considerable as true based on the very incentives of CBT itself: found within human capital theory and its relation to technical rationality. In these settings, knowledge-laden relational agency has no role. Educational upbringing of agency without providing access to general knowledge must be considered deeply problematic.

5.3 Skilful practices and the marketplace

Schön (1983) connects his arguments to Dewey's philosophy of reflection, not directly to experiential attributes, as I interpret, but on the point of 'reflection-in-action' on problems (e.g., pp. 50, 242). Here, he was distinguishing between two forms of reflection taking place in what he discusses as 'the art of professional practice' (Schön, 1983). Reflection-in-action is emphasising the process of reflecting on and adjusting one's professional actions in real-time situations while working on a 'task' or a 'problem-solving' situation. To adhere to the Bernsteinian perspective (Bernstein, 2000), Schön was distinguishing between a common-sense category of 'know-how' which is located 'in-action' and the general base of knowledge enabling intellectual operation. He says (in 1983): 'Although we sometimes think before acting, it is also true that in much of the spontaneous behaviour of skilful practice we reveal a kind of knowing which does not stem from a prior intellectual operation' (Schön, 1983, p. 51). To portray the difference, he refers to a kind of Deweyan 'reflection-on-action' pointing towards the process of reflecting on one's past experiences and actions thought to be gaining new insights about relational domains (Schön, 1983). This is indeed a pedagogically valid perception in order to decontextualise and codify knowledge as something more general, connecting to critical realism in a couple of ways.

First, the 'problem' that Schön discusses and criticises as being clinically adhered to in professional education (such as VET) is that knowledge is now taken for granted in competency-oriented managerialism, as something to wit readily validated and good by its very beginning. This is why the 'judgmental rationality'-informed analysis (e.g., Archer, 1998; 2020) of critical realism has suggested that the philosophy of Dewey's (and therefore Kolb's theory as well) is problematic (Biesta, 2020; Sayer, 2000; analysed in Wheelahan, 2023). It is considered problematic because, if one is to do justice to the inner and the

relative meaning of what the transactional approach of knowing will bear, 'the "inquiry" for "truth" as the fundamental concept of logic and theory of knowledge' (Russell, 1946 [2004] p. 730; quoted also in Wheelahan, 2023) must be present. In CBT, it is not present, leading to the second point. The main claim to truth held by what is instrumental and the object to truth is that truth will be constructed by our participation in practice via experiences and the actions of CBT. This issue of a deeper objective truth in CBT than 'what works in practice' is overlooked because its outcome must be considered true if it works in the situation. Consequently, Dewey's transactional approach must in a sense accept any object of knowledge as true based on the effect it gains, if that effect responds to our claims, including the one of 'skills management' (Cedefop, 2015) not problematising 'the whatever skill' problem. Strictly speaking, many things 'work' in the situation: the atomic bomb, for example, works perfectly in the situation. The matters are so horrible that they are self-explanatory I assume! If not considering the qualification requirements as a curriculum, which in the skills management case is ineffective, the abolished VET curriculum is problematic as the examination of truth as giving meaning to what is and can be accomplished with precisely what skills and competency. This risk, as I see it, lies at the heart of the results regarding the justification of the knowledge presented here: teachers 'complain' about things they construe as being deeply problematic in the outcome-oriented rationalised parody of the 'practical'; like that, 'one can show competence without knowing' (see Table 1, pp. 8–9 in publication III). In relation to the analysis made here, this thesis demonstrates that the relational interplay between what the world is as a socially more just and equal place lacks formal judgemental validity in competency-based training in VET in Finland, just as the notion of competency/skill lack connection to knowledge. The notion of competency and skill, or however construed, remain as an empirical/instrumental notion. Thus, the notion can say little about what is real in the world or not. And what is worse, as issues of technical rationalisation, they cannot be used to evaluate what is to be desired as more important and truer or 'better' than other things in various situations. Nonetheless, it would be essential to recognise this, particularly in VET. Based on the same premises, competency and skill as are in-action assessed as an isolated entity, lacking the relation between our knowledge about the world and the interplay at the intransitive domain in the social and natural world. This provides a strengthening of the argument about the 'market relevance' to Finnish VET and the social reproduction of gender-related inequality and social class (Nylund & Virolainen, 2019). The aforementioned code being based on 'one can show competence without knowing' (publication III) might be a vivid example of that, although the word 'knowing' could have

been misunderstood for knowledge. The blur between knowing and knowledge is a problem which CBT makes worse.

According to the results of the sub-studies, the validation of objects of truth is implicitly left to the professional practice of pedagogical expertise in VET. This is not a problem per se, as it is their expertise that can complete the task at hand. However, these professionals report a widespread lack of resources and tools to do so, because of structural priority (accountability) and that is another problem with CBT for relational work in the world. Conversely, what is de-emphasised and implicit in guiding policy-documents and systems tends to be forgotten over time, and workplaces and practitioners who have the rationale to guide workplace learning and co-assess vocational skills-demonstration tests (Virolainen, 2023) tend to abandon what is not required gradually, indeed they do. Practitioner's guidance of students at workplaces cannot be considered obligated to pedagogical reflection, although it can be committed to it (Billett, 2009; Billett & Pavlova, 2005), and this is not to diminish practitioners' professionalism or relational expertise in any way. (For a deep and broad discussion about relational expertise, see Edwards, 2017; and explanations of what obligations in social reality are about, see Lawson, 2011.) Simply, pedagogical reflection is not the culturally mediated obligation for practitioners in workplaces, nor is assessment of skills, although it might be assumed as their role in relation to VET's rules (see Lawson, 2019). In CHAT, this might aggregate the contradiction between the system of administration and collaborative student counselling to the system of workforce and the marketplace where actual ordered goods are exchanged for money (see publication III).

Schön's starting point is that knowing something in practice (that works/ what works) and having knowledge of the broader system of meaning (how something comes to be about what works) are distinct starting points and different things. What works can be understood by the latter but not the other way around. This is calling for the general systems of meaning in knowledge as the basis for wise deliberation and responsible action, a way of 'thinking beyond' the situation. This is the basic perspective in critical realism, that epistemic access to knowledge is based on what is general in knowledge, as codified and conceptual knowledge, that differs from 'common-sense' or everyday knowing by its codified structures and embodiment in relational systems of meaning (Young, 2012; Wheelahan, 2023). This leads us into the next section, discussing the role of knowledge for agency.

5.4 Object-motives and the role of knowledge for agency

The object-mediated approach in CHAT is a dual transformation between subjects and the world. While we act and interact in the world, we form ourself knowledge of the world, and when our body of knowledge forms and grows, we may realise that we should have acted differently or that we now need to act differently. We can hence seek to evaluate our agency constantly and ‘adjust’ it to our now broadened knowledge (Edwards, 2007; Edwards & Kinti, 2010). Without pedagogical support requiring critical reflection and decontextualization, the object-informed approach alone may not provide students with epistemic access to theoretical knowledge. The request for truth is an issue of curricula and education interaction, the portrayal of the relational strata between objects and the world, and between subjects and objects and the world. Bhaskar (2008) discusses the case of ‘epistemo-socio-logical individualism’ as ‘ontological atomism’ whilst, what comes to individualisation and individually assessed experience-laden skills in VET generates the ‘epistemological individualism.’ This is a reason skilled practices are not necessarily based on sensible and wise deliberation of relational practices. As the sub-studies indicate, individualised and artificial outcomes described in the PCDPs and national vocational programmes qualification requirements make it difficult for VET professionals to depict the next step they should take with their students. This is a natural limitation of the over-rationalised and fragmented depiction of what the competency-based qualification is intended to describe or underscore.

This was described as the fragmentation of object-mediated action and the distinction between actual need and rationalised goals (especially in sub study III). Due to the fragmented and categorical rationalisation of the constitution of VET practices, the sub-studies found that object-motives for professionals and students had been harder to grasp but that they cannot vanish (confirming Engeström, 2018). Viewed through the lens of critical realism, ‘practical knowledge’ (i.e., what works) is equivalent to object-mediated agency as understood by knowing how something functions in practice. That is, the daily procedure of learning by engaging in practices (see Wheelahan, 2007a).

The way in which CHAT comprehends communally generated activity can be related to Archer’s (1995) concept of conflation. This demonstrates that if the subjective agent disappears from view, as in managerialist neoliberalism, with the institutional emphasis on empirically measured outcomes in the foreground, it is possible that learning that makes sense for the subjective self also vanishes. That is, thoughtful action in different situations will also disappear (see Archer et al., 1998). Correspondingly, subjectivity lapses from

the managerialist/neoliberal explanatory framework formed by human capital (see Brown et al., 2020). The educational and pedagogical concept of relational agency is based on the relational consideration of object(s) that can be attributed to educational purposes, whilst keeping the subjective in learning at heart (Edwards, 2007). Edwards' concept therefore neglects Archer's (1995) concern about the 'downward conflation' of self, but also insists in not connecting what is relational to what is individualistic, i.e., 'upward conflation.' The results from the sub-studies show common object-motives were considered to be enhancing a thoughtful capacity to act in diverse ways, depending on not only the situation, but based on the knowledge-laden relational analysis of 'what matters' (Rai, 2017) in the situation. The pedagogical sphere of shared object-motives to this point was precisely what was getting harder to depict for professionals with their students.

From here the problems with over emphasised measurement emerged alongside the Cartesian divide and the error of social inclusion and co-motives, and so forth (publication I and II). Connecting the activity-theoretic object to critical realism in a way that demonstrates the dual operation regarding object-motive, the relation between what is subjective, and the world and the way knowledge and agency connect to that interplay is of utmost importance if one wishes to defend the educational aspect of VET. The sub-studies provided empirical evidence that this interplay plays a crucial role for learning. The acquisition of knowledge about the natural and social worlds is facilitated by a dualism between subjects and the world that is mediated by relationally depicted objects. This role entails that not all objects are significant to professionals, and that the specific object of a particular educational characteristic may be at the heart of the basic educational problem: how can we learn if we do not know? The market relevance (see Nylund & Virolainen, 2019) in consideration of clinical situations in which exactly what is to be mobilised for action and when is well-defined and specific may be sufficient for meeting industry requirements. In most situations, this is not sufficient for the subjective self, the living individual if they want to look beyond that situation, which must be considered as the fundamental pedagogical value and standard connected to as a counsellor and teacher (see Edwards, 2007; Schön, 1983; Archer, 1998). It is insufficient for a practitioner dealing with complex problems surrounded by uncertainty merely to possess instrumental skills, as this position requires thoughtful consideration of judgemental rationality of what objects are meaningful for learning, based on which upbringing and formation of relational agency in a broader sense than the pragmatic one of knowing ('that works') can take place.

Our lives do not follow a clearly defined 'path' with clearly calculable options between this and that; rather, our environments are typically fragile and obscured by their surroundings (Schön, 1983). In some limited ways,

practical knowledge may be sufficient for living our lives. In a limited capacity, instrumental abilities may also suffice to materialise our skills. This is not a valid argument for educational counselling: the scope of counselling as client-centred professional practice does not include instrumentalism or performative actions, which would be merely a production progress connected to behavioural governance or ‘future trajectories-oriented precision-guidance’ (Toiviainen & Brunila, 2021). To portray jointly agreed-upon motives for the educational counselling process, knowledge plays a role. I will open up to this below.

Schön (1983, 2001) talked about wise deliberation. It is safe to argue that as CBT gains in popularity, professionalism depending on relational agency and knowledge in VET are now more limited than they were when Schön made his main observations (reported in 1983). A little over two decades ago, he related the following: ‘there is widespread recognition of the absence or loss of a stable institutional framework of purpose and knowledge within which professionals can live out their roles and confidently exercise their skills’ (Schön, 2001, p. 3). He explained that skill is merely the instrumental outcome of professionalism which, as defined by technical rationality, has the power to criticise the way professionals sometimes enter ‘indeterminate zones of practice’ that must be dealt with as the situation of complexity and ‘elusive task of problem-setting’ they inertly are framed by (2001, p. 3). By way of explanation, the art of professional practice, in which the zones of fluid practice professionals sometimes engage with, can be definable with observable skill and competency that occasionally is teachable and learnable ‘in practice’, and sometimes not.

This is not only to consolidate the findings of this research related to measurement, inclusion, or the skewed focus on technical rationality and outcome in relational practices (publication III). It also suffices to say that in both cases, the immeasurable and unmeasurable spheres of meaning in knowledge and agency provide meaning to professionals through the same zone of something fragile, tacit, uncertain, and immeasurable holism (like ‘the grey zone’ in sub-study III). Agency is not clearly a categorical event in the domain of the practical/empirical, despite the fact that we must acknowledge its meaning when we are expected to be practical. This reconnects to Schön (1983) and his conclusion that clients and professionals (here students, teachers, counsellors) occasionally make thoughtful and wise and even effective choices for their action and this, their action in this particular sense, is emerging from agentic practices and ‘multiple views of professional identity’ (Schön, 2001, p. 3). Technical rationality aiming to organise, sort, and de-construct practice into predictable conjunctures of each other following chains of events (according to Archer’s, 1995; Bhaskar’s, 2008 [1975] ‘constant conjunctions’ in positivism) fail to say anything meaningful about what these of Schön’s ‘indeterminate zones of practice’ are (see also Archer et al., 1998). In real life

settings, practice is always blurred by a variety of circumstances (Schön, 1983, 2001). The sub-studies provide empirical validation of that real life practice is restricted or enabled by underlying mechanisms and structures, and in this practice, meaningfulness is mediated to us by objects of various nature and kind.

According to the pedagogical problem in CBT (that students are assumed to have a taken-for-granted notion of what they are doing): We must have some knowledge about these objects of various kind, in education widened in such way portraying the objects in a relational and pedagogical manner (see Edwards, 2007). Based on CHAT, it is reasonable to argue that when professionals in VET use relational agency in their work to make wise decisions concerning their students, it is not so that the cookie-cracked fragment of ‘what works’ (as a goal-rationalised category) can be of much help, as widely shown in the sub-studies’ results. The abstracted spheres of sensibility professionals connect to in their practice are something other than technically goal-rationalised categories and instrumentalised notions of effective progression, speaking in a sociocultural sense. Nonetheless, when empirically visible results (body-located abilities) matter, as they now do in VET and have done for a while, open-ended and multidimensional objects may resemble naive illusions and fictitious conceptions.

Engeström (2018) argues that as a result of economisation, it has become increasingly difficult for professionals to depict these conceptions of sociocultural objects. Economisation has produced structures that make objects more difficult to depict, but this structure does not necessarily interact with the object in the social and natural world in a direct sense. Through the lens of critical realism, it is possible to argue that they are not merely more difficult to depict due to economisation but, based on Young’s argument (2012), due to the limited ways to acquire knowledge and the lack of ‘access to epistemic systems of meaning’ (Young, 2007). Objects may have been moved out of sight because students do no longer get access to a broader understanding of the objects in terms of meaning, i.e., they have not yet learnt to use their ‘theoretical tools of trade’ (Wheelahan, 2023). Or worse: students have not been provided with any such tools (i.e., they do not know what they are doing or why). Therefore, the shared layers of objects (Engeström, 2001), or fragile spheres of meaning that Edwards discusses, may not be depictable in relational ways in CBT. To this point, teaching the ‘theoretical’ was once a crucial pillar but this was eliminated due to self-governed and ‘dynamic’ experiential customer-centred ideas (e.g., through the 2018 VET reform in Finland).

Modern education emphasises abilities and skills rather than knowledge, due to its emphasis on empirical abilities and ‘instrumental assessability’ (Schaffar, 2021). On the basis of the CR perspective to the Bernsteinian thesis

of pedagogical discourse (Bernstein, 2000), objects are not of such a nature that they can directly convey meaning to us in a manner other than in a practical sense. It is general and theoretical knowledge that enables us to ‘think beyond’ the practical domain in which we can first portray new objects in the world (see Archer, 1995, 2020). It is via codified knowledge we then attribute meaning and sense to the objects we have portrayed, related to our epistemic access to systems of meaning in a broader sense, which in turn enables this to materialise or be reversed (Young, 2007, 2012). If we now connect Young’s ‘epistemic access to systems of meaning’ to the research of Schön (1983), it becomes more obvious that technical rationality is not just about competency and skills and their management. In 2001 he explained that it also is about knowledge to be ‘tamed’, just as it was with positivism some 40 years ago, and the early onset of techno-economist form of pragmatist ideas. For Schön, this became a pressing dilemma. He stated that professionals willing to address issues of a significant social nature and sheer complexity in their work, like counsellors’ and students’ relational agency in this thesis seem to demand, he argued, must occasionally disregard their ‘technical rigour’ (i.e., the capability to effectively seek solution of instrumental problems). Rather than technical rigour, professional expertise involves a broader awareness of the task, first as part of the understanding of any problem in constantly hazy and blurry surroundings, and then about reflection on what any proposed solution would lead to, and finally to renegotiate future choices and actions based on the experiences. This type of thinking necessitates leaving the instrumental way of thinking behind and start accepting broadened zones of uncertainty, rather than narrowing down possible relational perspectives of wisdom and human flourishing (Schön, 1983, 2001; see also Tyson, 2017; von Wright, 2022 [1986], pp. 14-37).

The issue Biesta (2020) highlights, that students must learn something from someone for a reason, is not well served by the pursuit of exclusively self-governed practices, or by ‘learnification’ (see Biesta, 2010), and the disputing of practical experience. It is also not well served by object-mediated practices (conceptualised by CHAT) if students as self-governing individuals are left alone without pedagogically and critically reflective support, such as teacher and counsellor support. It is possible for things that occur to us (via objects, e.g., light, heartbeat) as empirically observable events to materialise as catatonically conflicting (seen through the lens of critical realism), even though the things themselves are not conflicting because they are merely expressing themselves as they are. For example, missing the relation between electrical current and light. Or the conflictful relation and policy between climate change related to the production of energy, or poverty, food and clean water. Therefore, action in relation to the meaningful life of others and sustainable continuity of the Earth

matter for VET. That is, techno-economic rationality, i.e., the economisation of technical rationality, in VET is an approach that relies on positivist empiricism combining economic incentive and labour-force related profits into the notion of competency/skill, which produces fragments of knowing in practice, or a 'mosaic' just as is the case of 'competence identity'. This is gaining resonance in what can be measured according to economic austerity: via matching measurement in the production-consumption chain which then intervenes with atomistic events that can be observed, measured and assessed in 'practice', but altogether lacking 'ontological realism, epistemic relativism, and judgemental rationality' (Archer, 2020, p. 137). Therefore, the stricter the definition of the calculated skills-(miss-) match (see Cedefop, 2015), i.e., the economic-technical rationality surrounding the supply-demand-match skills (need for and production of competency), the harder it may be for professionals and clients (students) to find jointly agreed-upon objects that respond to subjective needs for new learning reflected to responsible action and pedagogical purposes.

The real problem with CBT might therefore not be associated with techno-economic rationality and the instrumentalising approach it generates, but the lack of realism, relationism, and judgemental rationality; viz., conceptual knowledge about objects comes in a sense before the object, and together they can be conceptualised in our minds to what Young poses as codified systems of meaning (2007) or 'the voice of knowledge' (2012, pp. 139-51). Based on the above, reflecting the results of the three sub-studies to the theoretical frame, the collapse of relational spheres of meaning and cause can be interpreted as emerging from the lapsus of the intransitive domain ('the natural and social world') in addition to the atomised domain, i.e., the fragmented and splintered transitive domain ('bodies of knowledge') (inspired by Wheelahan 2023, see quotes on p. 3). As it were, the educational aspect of VET that CBT lacks the 'theoretical tools of trade' (Wheelahan, 2023, p. 4) that knowledge in curriculum can be about but CBT based qualification requirements not, and this can provide a theoretical explanation of why object-motives for relational meaning in the sub-studies vanished or were never there to be relationally portrayed.

That is why CBT weakens the educational purpose of VET at the same time as conditions for vocationalism deteriorate.

5.5 The ego-centred rationality mistake: a conclusion

According to the OECD, Finland has a small performance gap between disadvantaged and advantaged students. It was believed that this was largely due to the country's solid democratic underpinnings (as determined by Reay,

2012; Wheelahan, 2015). In this section, I will conclude the above-discussed theoretical and philosophical results in relation to that. In so doing, I will take the perspective of democracy and social equality. These are two pressing concerns in contemporary VET, and the reason for education at large.

Summing up the discussion in this Chapter: One central tenet of competency-based VET in relation to aspirations for future prosperity and the national quantity of wealth (see Brown et al., 2020) appears to be the inclusion of practices that generate accountability along with ‘market relevance’ (validating Nylund & Virolainen, 2019). This is the link between subjective performativity and economy. An ever-strengthened faith is put in that skills and competency used for professional work are the basis of future growth. In a closer look, in assuming ‘what work’ is ‘objectively real’ in this way, i.e., the quantified way, the technoeconomic orthodoxy is also to assume professional capability to act wisely is a determinantal capability arising from instrumentalism—a behaviourist educational approach (Bagnall & Hodge, 2017). On the basis of empirical realism, confirming prior research, CBT then adjusts broken pieces of assessed action reconstructed by an aggregative process (see Wheelahan, 2010). In other words, while opposing a relational epistemology, the flattened ontology of CBT enabled precisely that puzzle the ‘personal competence development planning’ (PCDP) is aimed for, assembly of condensed competency pieces to something becoming the new professionalism: the ‘competence identity’ (Paaso & Maunu, 2022).

Nonetheless, in a clear and sound way, the aggregation of one assessable effect (or atomised bit of skill) from here and another there in the formation of such a notion like competence identity draws upon the ‘constant conjunctions’ approach. It aggregates splintered notions of various kinds and epistemological foundation. Mainly notions from empiricism and technical instrumentalism are put forward in policy and practice by terms of constructivism. That kind of aggregative epistemology and ontological atomism CBT adheres to is precisely what Wheelahan describes as why constructivism makes things with CBT worse (Wheelahan, 2009, 2010). This gained widespread resonance in the results from the sub-studies, not least on the failure of the technology-informed professional action, but also in connection to the reduced spheres of knowledge into fragments of such actions that bear assessable effects with them. In this sense, justification of knowledge in CBT based on what can be considered true or not in the world fails.

However, if we slightly stretch this by abstracting the results a bit, we might see that the fragmented and unproblematized ways in which CBT is implemented in VET and workplaces contain antagonisms aligned to self-strengthening reproduction of social structures. For example, orthodox economists endorsing CBT seek to avoid the critique of ontological atomism

by adjusting the doctrine to fit experiential approaches by, for instance, the ‘mosaic-like’ notion of ‘competence identity.’ It seems that Dewey and Kolb are rather used as a hopeful apology for the indoctrination of CBT to VET via the splintered and fragmented bits of a ‘competence identity’ than that the epistemology in VET could be based on their theories. However, it seems it failed. Just as constructivism made things with CBT worse (see Wheelahan, 2009), the theories of Dewey and Kolb continue in the same direction. They enable the reverse-engineered way of thinking epistemology to something that has none but an aggregative assembly of some splintered mosaic formed by the calculated sum of measured effects.

This may now result in a mistake made not only by orthodox economists, but also by policymakers uncritically assuming them to be right about the Hobbesian thesis: that people ultimately will seek to maximise their wealth. This is a mistake, an ego-centred rationality mistake, operating with ideas of individualised skills-management and techno-economic rationality at the forefront. Namely, it makes it possible to assume that students’ problems with adhering to the austerity of skills-testing is an indication of what ‘they need’ as not yet discussed and adjusted in line with the ‘industry need’ (FMEC, 2017c). Sayer (2011) explains that social structures and rules institutionalise norms, forming the way we think and behave in appropriate ways. The individualising structures and rules of CBT are detached from values and causes they are about rather than they are fair, just, or equal for all the people they concern. Like assuming people wouldn’t yet know what is best for them, CBT emphasise selfishness the same time it cannot in any meaningful manner inform wise deliberation in human capability. It is possible to think that CBT is used as the normative policy approach, then becoming the pretence ‘of the explanation of the world’ based entirely on what can be artificially discovered, and empirically measured, as ‘what works’ or ‘may not work’ in practice whilst neglecting the dependence on others and comparative relationality (see Sayer’s discussion 2011, and the essential tension in Chapter 2).

The data analysed in the sub-studies signal a structural and institutionalised ego-orientated technical rationalisation, although the essential problem was the focus on the rationalised goal adjusted as responding to a generalised need whilst at the same time, ignoring or even contradicting the actual need of a person. This, if and when so happens, must be considered to be more of an ideology than a prescription for truth justified and analysed by the premises of social sciences (see, Stråth, 2006, p. 23; also, von Wright, 2022 [1986]). That is, having considered Archer’s ‘explanatory adequacy’ (2020, p. 137): An instrumental constructionism in CBT contributes to the materialisation of the ego-centred rationality mistake, which associate with the Frankfurt school of technological/technical rationality (see von Wright, 2022 [1986], pp. 14-22) and

particularly Horkheimer's 'eclipse of reason' (Horkheimer, 1974). Eclipse of reason gains resonance in technical rationality to VET for a certain constraint.

The constraint is, that it adjusts means (of education) to ends (of measured prosperity) which eclipses the reason for competency to materialise into action. It does so by blurring the motives for learning and the intrinsic value of life and motives people might have in relation to each other and the world, in various situations. Eclipse of reason is that means must match what is measured and then be rationalised to whatever end. The results from the sub-studies can be attached to this obvious danger. It might be a matter of how fast 'old' standards and ethically reflected values are kept in the collective memory of educational professionals. Namely, the ideology of social engineering and rationalisation in the social world can precisely achieve disastrous results for humanity and life on Earth, through Horkheimer's eclipse of reason. Eclipse of reason serve an explanation for why Nazis could indoctrinate their people with their dreadful agenda based on the 'faculty of instrumental reason.' The Holocaust was brought forth and people were indoctrinated to think that it was 'reasonable' [*sic!*], since the 'higher goals' which end with a particular purpose concealed its means and blinded the theory of an objective truth contingent to subjective reference on the rationale of outcome merely (Horkheimer, 1974). Pekka Niiranen (2022) has analysed similar veins in relation to the dehumanisation of ability in Finnish policy and local behaviour during World War II and after. If accepting that the relational spheres of meaning in connection to competency and skill are adjusted to the ends of the latter, then VET must also accept being wired to the centre of the Hobbesian thesis (Wrenn, 2022; Epstein, 2013), continuing to blur the buyer of 'this but not that skill' with the ones selling it and investing in it (Han, 2008). Maximising the financial gain regardless of the consequences will cause us to lose everything that humanity is about, and more.

Considering the current state of the world, with ever-increasing tensions more and more reminding us of the Cold War, and contradictory arguments between oversimplified opposing perspectives and an impending ecological catastrophe, we might seek to require less technical rationalism and more object-informed analytical relationism in education, adhering to educational meaning as emancipatory investment and social inclusion (also) through VET. I suppose this is comparable to the question G. H. von Wright emphasised (2022 [1986]). That question is the issue of what is natural and what is artificial, as a case for how we think about the purpose of education in every corner of the world, not simply in terms of VET, which appears to have taken the lead in a cartesian reconstruction of the natural into the atomised, mechanical, and technical, forced into the social and subjective by blurring them by conflationary approaches (such as human capital) with economy and psychology.

Brown et al., (2020) discuss that when we again acquire dignity and the 'quality of life' rather than the 'quantity of wealth' we can be committed to working together in a world based on participation and social generosity rather than competition alone. Then orthodox economists will consider themselves outplayed; just as educational behaviourists are when denying relational encounters.

In conclusion, limiting education to focus on measurable competency applicable to the workplace diminishes the significance of vocationalism in a broader sense. It detaches the depth-ontology of the social and material worlds from our practice, ignoring the holistic domains of life and the thought of how we can build confidence and trust in each other and the world in meaningful ways other than by individualism, technical rationality, and orthodox economics. Ultimately, the latter are all failing to deal with the judgement of what can be considered meaningful in different situations. To this end, it seems CBT gained the power to make VET's affordances both less educational and less vocational at the same time.

5.6 Limitations and suggestions for further research

The primary objective of the collaborative research project was to gain a better understanding of the agentic interplay and context of the personal competence development plans (PCDPs) in vocational education and training (VET) in Finland. The impact of motive and meaning was viewed as a process that changed over time (Engeström, 2000), not just a situational event, and longitudinal data would be required to analyse change. I was unable to collect or produce observational data over several years as part of the planned project. As a result, observational data were supplemented with interviews that included reflection on themes emerging from previous observation, as well as historical and currently valid, public, government documents and vocational qualification requirements. A limitation reported in the original publications is that the limited number of organisations that participated in the research may have resulted in findings that reflect a local institutional culture. There might have been greater variation in the sub-studies' results if the study had included multiple organisations. The 2018 VET reform emphasised the autonomy of local VET schools, which may have increased the cultural differences between them.

Students' direct reflections on their own learning processes at the boundaries of VET and work-based occupations could not be investigated in depth due to the design of the research. However, primarily analysing structural and professional and relational spheres of knowledge and agency over the boundaries of VET legitimises a focus on professional actions and

professionals' reflection on action and object-motives for these actions (see Edwards & Kinti, 2010).

The issue of calculated sum of competency units is not making VET more educational or vocational; the atomised bits of a qualification does not help address the fundamental flaw with instrumentally shaped and aggregated concern: human relational agency based on knowledge can't be reduced to instrumental epistemic assumptions. To this point, the risk with having reflected local institutional culture does not change the problem with educational measurement and atomised epistemology, since the latter is a global concern. To this end, the results and conclusions presented in this thesis bolster and empirically validate what has already been established through research, while also demonstrating a broadened theoretical frame and a method for demonstrating the extensive problem of techno-economic and knowledge-capitalist influences on education.

Given the argument that research is at least normative for policy and education, it is surprising that the skills-management approach to education has received so much attention in policy while receiving less attention in critical research, especially concerning VET in Finland. It seems as though individualisation and the emphasis on measurable outcomes from education in general, and VET in particular, have been characterised by a particular positivity flaw in Finland, of which 'competence identity' is a cause. More research is required to determine the implications of the techno-economic accounts. I would like to emphasise that it may be time for VET researchers to propose alternatives to the CBT-derived rationalisation: new theories for VET may be required and have indeed been suggested. The Critical Capabilities Approach was proposed by Simon McGrath et al. (2020) and the Vocational Bildung Didactics model conceptualised and proposed by Ruhi Tyson (2017). As far as I am aware, there have been no serious discussions on alternatives to CBT in Finland, but there may be an immediate need for such research-based initiatives.

Looking at the situation in the world, not least the one in Ukraine and subsequently in Sweden and Finland, more theoretical and empirical research on more efficient CBT alternatives is needed. Now might not be the time to reduce anyone's opportunity to reach their capacity to think new thoughts and develop relational agency for the materialisation of thoughts to action based on the interplay between knowledge and agency.

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APPENDICES

APPENDIX 1. Request for participation in student counselling research in vocational education and training

April 4th, 2019 (English translation)

Organisation (Official name)

Name LastName, Title (Principal/School leader)

Address (Street address, Postal code, City)

Hi!

My name is Niklas Rosenblad, a doctoral researcher at the University of Helsinki, Faculty of Educational Sciences. I'm looking for student counsellors and teachers with counselling responsibilities at vocational institutes to take part in a developmental and practice-based study on student counselling. I am a vocational teacher but will be doing full-time research on the subject starting in April 2019.

The research is planned as a design-based research project investigating the development of student counselling through field collaboration. As a system, the emphasis is on personal study paths and cross-curricular counselling collaboration. The research is based on the reform legislation (531/2017) and implementation of changes required, such as students' compulsory made "personal competence development plans" (PCDP).

The study directly comprises counsellors and teachers work practices as well as students indirectly. The subject is seen as critical for student well-being, internal and external VET school collaboration, resources management, and educational throughput. The research findings will be published in English-language scientific journals. The research constitutes my doctoral thesis. The research project emphasises the application of practical activities, feasibility, and benefit.

The planned research methods consist of (ethnographic) observations and interviews that are conducted over a period of two academic years. I will analyse interactions between students, counsellors and teachers, and experiences of indicators and mechanisms that affect the PCDPs.

The results are fed back to counselling practices, enabled by the field collaboration, current or new counselling models can be developed. In the project, research ethical sustainability is one of the most important pillars; emphasizing autonomy and trust, research participants' integrity and consent, and data protection.¹

My inquiry is whether your organisation would like to participate in the research with around five counsellors/teachers? The participants need to have counselling responsibilities concerning the PCDPs (according to the Finnish VET Act 531/2017:5).

If I receive a preliminary affirmative answer from the school, I will return with an information letter and consent form to counsellors/teachers who may be interested in participating in the research.

For the participants, a direct pedagogical opportunity to reflect on their practice will be provided. Your organization would have the opportunity to develop the idea and practice of counselling based on research. Collaborative student counselling becomes locally more important for vocational learning, based on the VET reform. In general, this can help to enhance the collective value of counselling and professional/vocational learning. This would mean that, as a researcher, I am given the opportunity to follow (ethnographic observation) counselling sessions for a few weeks at the start of the semester and conduct thematic interviews with counsellors/teachers at their respective workplaces.

During the research process, your organisation's participation would also imply the participants, and if necessary, their leaders, participating in a few meetings where we are discussing what is done and what the next steps are.

At the University of Helsinki, my supervisors are University Lecturer Birgit Schaffar and Professor Erika Löfström.

I am happy to provide additional information by email or phone. Email: niklas.rosenblad@helsinki.fi, Phone: +358 40 **** ****

I hope you are interested, and I look forward to meeting with you to tell you more!

Best regards,
Niklas Rosenblad

Endnotes/References

1. See the Finnish National Board on Research Integrity (TENK):
<https://www.tenk.fi/sv>

APPENDIX 2. Information letter to research participants

April 4th, 2019 (English translation)

Dear student counsellor / teacher!

My name is Niklas Rosenblad, a doctoral researcher at the University of Helsinki, Faculty of Educational Sciences. I am a vocational teacher but will be doing full-time research on the subject starting in April 2019. Via this information letter I invite you participate in a developmental and practice-based research on student counselling in VET. The work title of the research project is, “Forces of individualisation and competency-based training. A design-research on the development of counselling systems, implications of the Finnish VET-reform 2018”. The focus of the research is on individualisation of studies and crossdisciplinary systemic collaboration around student counselling. The starting point is the VET reform (2018) and changes desired, mainly concerning the students’ PCDPs. ¹

For you as a counsellor / teacher in VET, research participation would provide opportunities to reflect on your practice. Participation provides opportunities to discuss ideas and develop your own professional practice based on research-based methods but practice-based ways. Your participation would mean that, as a researcher, I am given the opportunity to as a “silent observer” (ethnographic observation) follow counselling sessions a few during two following semesters. Participation also imply that I can ask permission to conduct a few interviews with you, either personally or as group interviews with your team at the VET school. During the research process, participation in the research project include attending to a few meetings where we may discuss preliminary results, what is done, and what the next steps are.

Your participation is voluntary. You can choose to discontinue your participation in the research at any time, without special reason and without further explanation. Your participation/non-participation in the research does not in any way affect your employment relationship, your position in the organisation, or your or our colleagues’ treatment within the work community. In the project, research ethical ² sustainability with, among other things, honesty, autonomy, informed consent, personal integrity, confidentiality, data protection and trust are fundamentally important.

You can withdraw your consent to participate in the research process at any time, and you can influence whether the data in which you participate, or which has been collected about you, can be used in research. If a request is made to withdraw the data gathered thus far, but doing so would cause unreasonable difficulties in the ongoing implementation of the study, I reserve the research-based user’s right to the data in question. However, these are

always issues that we discuss together. Naturally, I will take into account any requests for retrospective data withdrawal as far as possible.

The research data is planned to be produced based on ethnographic participatory observations and interviews, conducted over a period of two academic years. All the data will be anonymised. It will not be able to I will analyse interactions between students, counsellors and teachers, and experiences of indicators and mechanisms that affect the students via formation and updates of their PCDPs, experiences of cross-disciplinary collaboration, and so forth. The identity of the participants cannot be revealed based on the research's reporting, presentations, or archival data. After transcribing and anonymizing the data, it may be stored in the Finnish data archive FSD/Aila for future research use. The data will be analysed using qualitative approaches, such as hermeneutic content analysis and, amongst other methods, grounded theory. The analysis produces theoretical artefacts that we may further develop and validate in tandem with the collaboration.

At the University of Helsinki, my supervisors are University Lecturer Birgit Schaffar and Professor Erika Löfström.

I am happy to provide additional information by email or phone. Email: niklas.rosenblad@helsinki.fi, Phone: +358 40 *** ****

Your participation would be really valuable!

Kind regards,
Niklas Rosenblad

Endnotes/References

1. Abbreviation of “personal competence development plan” (PCDP) based on the Act on VET in Finland (531/2017).
2. About research ethics, please see the Finnish National Board on Research Integrity (TENK): <https://www.tenk.fi/sv>. The research follows University of Helsinki's guidelines on good research practices, according to TENK.

APPENDIX 3. Consent form (English translation)

Research participant's consent form

I have received written and spoken information about Niklas Rosenblad's doctoral research on student counselling in vocational education.

I am a counsellor or teacher. Research data to which I have contributed to the collection of by my professional role can be used for research purposes. I am aware that the school's principal or leader has given the organisation's permission to participate in the study.

I am aware that I voluntarily participate in the research. My participation in the research is a part of my work at the school. I may withdraw my participation in the research at any time and without further explanation. My agreement to participate in research will be continuously monitored until the school-based fieldwork of the research is ended.

If I withdraw my consent to participate, I can influence whether the data in which I participate can continue to be used in research. My participation/non-participation in the research does not in any way affect my employment relationship, my or my colleagues' position in the organisation, or my treatment within the work community.

My personal data is stored in compliance with the applicable data protection laws. In both storage and reporting, the information I provide to the collection, as well as all information about me, is anonymised. Thus, my identify will not be revealed based on research publications or any released information related to the research.

Attached to this consent form is, Information letter to research participants (April 4th, 2019).

With my signature, I agree to participation in the above-mentioned research.

place and date

.....

signature, name clarification

.....

contact information (phone and e-mail address)

.....

the organisation's name

.....

the address where I work

.....

APPENDIX 4. Information on research for students

May 23rd, 2019, English translation

Dear student in vocational education and training. During 2019–2021, your school and counsellor/teacher will participate in a research project. Niklas Rosenblad is conducting this research as part of his doctoral dissertation at the University of Helsinki.

This research examines counselling through the processes and patterns surrounding the “personal competence development plan” (PCDP) (see Act 531/2017). We need to ensure that observing counselling for developmental purposes is okay with you. Therefore, this information is provided to students who may be indirectly involved in the research. There are no implications for your counselling or teaching depending on whether you choose to indirectly participate in the research or not; your studying in general will not be affected by your decision to participate or not participate.

The researcher follows and observes the work of counsellors/teachers who guide students individually and in groups. This happens during guidance counselling sessions and other situations where individualised learning paths are formed. As a result of the counsellor’s or teacher’s effort, the research indirectly influences you as a student.

What the research looks at and investigates are themes that are discussed, but not directly or specifically what is spoken during the counselling sessions. There will be no recording or storage of your personal information nor that of any other student. The research materials contain no personal information about you or other students. Elements that are covered in the research constitute the discussed themes. The researcher documents the counselling sessions by making memory notes. The counselling session will not be recorded on film or tape. In addition to observations, interviews with counsellors and teachers are undertaken. You can contact me, the doctoral researcher, for further information about the research: niklas.rosenblad@helsinki.fi

If you agree to participate in sessions in which your counsellor/teacher discusses your studies with you, you are not needed to take any action.

If you wish not to participate: Just say no; you can do so before or during the session.

Additionally, you may fill out the form below and give it to your counsellor/teacher or to the researcher.



No, I do not want to participate in the research.

Place and date

My name

My counsellor's or teacher's name

My school's name



Send this form if you do not want to participate to:
niklas.rosenblad@helsinki.fi

