

NORDYRK 2019

12 – 14.6.2019

ABSTRACTS



The presentation languages are marked as (SWE), (NOR), (DA) and (ENG)

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Session 1 (Wednesday June 12th 14.45-16.15)

Didatik I yrkesutbildning (paperpresentations)

1. **Niels Henrik Helms, docent, NCE, Københavns Professionshøjskole -
*Teknologiforståelse, digitalisering og didaktisering - kortlægning af positioner.
(DA)***

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| PRESENTATION FORMAT |
| Paper |
| LANGUAGE FOR PRESENTATION |
| Danish/or English |
| TITLE |
| Teknologiforståelse, digitalisering og didaktisering - kortlægning af positioner |
| AUTHOR(S) and AFFILIATIONS |
| Niels Henrik Helms, docent, NCE, Københavns Professionshøjskole |
| KEYWORDS (3-5) |
| Teknologi, digitalisering, undervisningsteknologi, uddannelsesteknologi |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

Forskningsmæssigt sættes her fokus på:

- Erhvervsrettet teknologiforståelse,
- Didaktisk teknologiforståelse og på samspillet mellem disse og udvikling af uddannelsesteknologi (digitalisering af uddannelsesformater – fx mere adaptive efter-videreuddannelsesformater),
- og digitalisering af undervisning (digitalisering af undervisningsprocesser – fx øget brug af simuleringer)

Bidraaget vil præsentere en kortlægning af disse områder, og hypoteser om, i hvilket omfang de er gensidigt konstituerende.

Erhvervsuddannelserne har her en afgørende opgave i på den ene side at sikre, at eleverne bliver rustet til de nye kompetencebehov, og samtidig til at udnytte potentialerne ved at integrere digitalisering og bruge it i undervisningen. I dette bidrag defineres og udfoldes en forskningsmæssig ramme for, hvordan teknologi kan forstås didaktisk. Forsknings- og udviklingsmæssigt blevet tilgået med to konfliktende dimensioner – en dannelse af eleven til en kritisk forholden sig til it, og et ekspliciteret ønske om at kunne kvalificere en effektiv. Tilgangen er her, at begge positioner mobiliseres og gentænkes.

Elevernes teknologiforståelse ikke alene handler om at kunne bruge og forstås teknologien, men også have en både kritisk og konstruktiv tilgang til, hvordan teknologien udfolder sig i denne kontekst og videre, hvordan der med teknologien kan tænkes og udvikles nye kontekster og praksisser.

Den forskningsmæssige dimension er at kvalificere begge perspektiver videnskabsmæssigt, men også angive, hvordan og hvorfor netop samspillet mellem fagenes digitalisering og den pædagogiske udfoldelse af it kan skabe læringspotentialer, der overskrider instrumentaliserings og abstrakt teknologikritik.

METHODS /METHODOLOGY (up to 100 words)

Analytisk vil der her blive taget afsæt i en ANT tilgang, hvor der vil være fokus på, hvordan aktørerne gennem interaktioner skaber nye betydninger og dermed nye måder at agere på. Her analyseres samtidig, hvordan policy-dokumenter indgår som scripts i disse forhandlinger, hvordan de transformeres og re-fortolles og reproduceres i de forskellige netværkskonstellationer præsenteret her. Metodisk er der her ind

| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
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| Ramme for det videre forskningsarbejde I teknologi og teknologiforståelse I erhvervsuddannelserne, der vil være fundamentet for etablering af nationalt forskningsprogram |

2. Enni Paul, Specialpedagogiska institutionen, Stockholms universitet & Camilla Gåfvells, Konstfack - *Lärarens eller elevernas erfarenheter som utgångspunkt för undervisning. Jämförelse av skolförlagd yrkesutbildning och gymnasial lärlingsutbildning på Barn- och fritidsprogrammet. (SWE)*

Nyckelord: Lärlingsutbildning, skolförlagd utbildning, Barn- och fritidsprogrammet, yrkesdidaktik, yrkeskunnande

I den svenska gymnasiala lärlingsutbildningen ska eleverna spendera minst halva sin utbildningstid på en eller flera arbetsplatser, jämfört med 15 veckor i de skolförlagda yrkesprogrammen. Den gymnasiala lärlingsutbildningen beskrivs som ett alternativt sätt att lära, samtidigt följer lärlingsutbildningen kursplaner som utvecklats för de skolförlagda yrkesprogrammen. Om lärande förstås vara situerat, och om yrkeskunnande förstås uppkomma i relation till den praktik som tar form i en viss verksamhet (Lave & Wenger 1991), framstår detta som paradoxalt.

I presentationen redogör vi för resultat från ett projekt med syfte att beskriva vilket yrkeskunnande som elever i svensk gymnasial lärlingsutbildning respektive skolförlagda yrkesprogram får möjlighet att utveckla. I fokus står ett av de två studerade programmen: Barn och fritidsprogrammet (BF).

Presentation vägleds av följande forskningsfrågor:

Vilka skillnader och likheter framkommer i undervisning i skolan respektive handledning på arbetsplatsen i lärlingsutbildning respektive skolförlagd utbildning? Vilket yrkeskunnande erbjuds eleverna möjlighet att utveckla i respektive utbildning?

För att svara på dessa frågor har de uppgifter (Jfr Lindberg 2003) eleverna får tillgång till i skolan och på sina arbetsplatser i de båda utbildningsspåren jämförts. Studien är en småskalig fallstudie. Data har skapats genom observationer i klassrum och på elevernas arbetsplatser. Under observationerna har elevernas interaktion filmats. Intervjuer har

gjennomført med elever, yrkeslærere og handledare. Därutöver har de skoloppgifter elevene gjør i relation til sitt arbeidsplatsförelagda lärande (apl) studerats. Teoretiskt grundas analysen i situerte forståelser av lärande (Lave & Wenger 1991), liksom en relationell kunnskapssyn (Carlgren 2015, Ryle 1949).

I de preliminära resultatene framkommer skillnader i vad den skolförelagda läraren och lärlingsläraren har fokus på i sin undervisning, liksom skillnader i de skoloppgifter elevene får gjøre i relation til sin apl, samt i bedömning av yrkeskunnskande. Den skolförelagda läraren legger stor vikt vid BF-programmet som ett akademiskt program där fokus i undervisningen i hög grad är propositionellt kunnskande. Lärandet organiseres med utgangspunkt i de ulike kursene i læreplanen. Bedömning av yrkeskunnskande under apl baseres hovedsakelig på en skriftlig rapport. Lärlingslärerenes arbeid framstår mer som ett översättningsarbeid, där denne ska liste ut hur de oppgaver elevene deltagt i under apl passer inn i ulike kursene i læreplanen. Bedømmingen i lærlingsutbildningen baseres på trepartssamtal mellom lærere, handledare og elev, lærerenes iakttagelser under besök och skoloppgifter. I lærlingsutbildningen framstår det som at det är lærlingselevens erfaringer från apl som vägleder undervisningen til skillnad från undervisningen i den skolförelagda utbildningen där lærerenes kunnskande och erfaringer är utgangspunkten for lektionens utforming og innhåll.

3. Tom Ekeli, Fagbokforlaget, Ronny Sannerud, Kurt Stokke & John David Holt OsloMet, Storbyuniversitetet - *Hva sier elevene og lærerne i anleggsteknikk om en lærebok som inkluderer filmsnutter og digitale oppgaver?* (NOR)

PRESENTATION FORMAT Paper

LANGUAGE FOR PRESENTATION Norsk

TITLE Hva sier elevene og lærerne i anleggsteknikk om en lærebok som inkluderer filmsnutter og digitale oppgaver?

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KEYWORDS (3-5) Digitale læremidler, bygg- og anleggsteknikk, tilpasset opplæring, relevans

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Følgeforskning i forbindelse med utprøvingen av en beriket digital lærebok

FRAMING (General description, research questions, theoretical framework) For datainnsamling er det benyttet spørreskjema (Dalland, 2017) utarbeidet i Nettskjema (UiO, 2019). I tillegg til avkryssningsspørsmål, som var konkrete lukkede spørsmål med svaralternativer, er det gitt muligheter til å komme med innspill for hvordan filmene og de digitale oppgavene oppleves i opplæringen blant elevene i anleggsteknikk. Det samme er gjort mer generelt om digitalisering blant yrkesfaglærerstuderter og ingeniørstuderter i bygg-

og anleggsteknikk. Resultatene med åpne spørsmål er anonymisert og systematisert – basert på prinsippene for åpen koding (Postholm 2010, Thagaard og Lindegård, 2010). I tillegg er det gjennomført dybdeintervjuer (Kvale, 2007) med lærere/instruktører om bruk av digitale læremidler i anleggsbransjen. **EXPECTED OUTCOMES/RESULTS (up to 100 words)** Våre funn eksemplifisert med sitater; Motivasjon «Den teoretiske delen i dette faget oppleves som særdeles tung for mange elever, og en slik løsning vil være positiv for elevenes motivasjon i faget» Tilpasset opplæring «en liten film kan beskrive mer enn 1000 ord, en lettere måte å motta informasjon på» og «har mange flere muligheter og hjelpemidler tilgjengelig med bare noen tastetrykk» Relevans «visualiserer problemstillinger, og hvordan disse skal løses. I tillegg kan man alltid gå tilbake å se filmen på ny» og «det er dette vi skal drive med. Vi skal ikke sitte mye med penn og papir. Byggebransjen digitaliseres omsider den også»

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Didatik in Vocational and Professional Education (paperpresentations)

1. **Kaisu Kumpulainen, University of Jyväskylä & Sanna Vierimaa, University of Jyväskylä - *Ethnography students developing village tourism – the challenges between the university education and the third sector collaboration (ENG)***

The article examines the challenges university teachers have faced in planning and implementing the sensory ethnography course in collaboration with the third sector development project promoting village tourism in Central Finland. The task of the course is to help the village action associations to develop tourism attractions with the help of ethnographic research. By organizing a methodological course in cooperation with the development project offers students a possibility to get practical experience of doing ethnographic research. The sensory ethnography course is divided into theoretical and methodological lectures and fieldwork part. Teachers and coordinators of the course are also immersed in the research process.

In this paper we look at the new challenges of university education through the social practice theory framework. The three elements of social practices; material, competence and meaning, help us to identify the important factors that should be taken into consideration when organizing collaborative teaching with third sector development projects. How university's structure enables implementing new kinds of teaching methods and approaches with different actors? What kinds of competences are required? How do teachers process their ideas, aspirations, identity and values throughout the course working together with the third sector activists? These questions are examined at the University of Jyväskylä's new degree program Cultures, communities and change (KUMU), which aims to strengthen public engagement and career life relevance.

The group discussions and the diaries of the teachers during the course are the data that are analyzed through social practice theory. According to our results a collaborative project course between the university and a third sector organization require different kinds of methods and approaches. At this point, we can say that such a course is difficult to organize in a traditional way of lectures and assume that all the activities would happen in the campus area. Planning and coordinating the course takes a lot of time and resources while teachers must tolerate a certain amount of uncertainty. The competence of the teachers is also challenged, and they have to be open for example to deal with research topics they are not familiar with. When adopting a new social practice, collaborative project teaching, also the meaning element is important. Above all, the teachers have to question their role as experts when taking third sector actors as equal partners in producing new knowledge.

2. Ingrid Henning Loeb, University of Gothenburg - *Interactions showing the learning of vocational language. Examples with analysis of excerpts (ENG)*

In the political arena in Sweden, and across political parties, VET and work-place learning has increasingly become regarded as a rapid path for immigrants and refugees to employment and integration. Similarly, vocational education and training is often regarded a 'practical' educational path, suitable for learners with low educational backgrounds. However, research provided by e.g. Collier & Thomas (1989) show how school-related language acquisition takes time. As an example, young people arriving at ages 12-16, can take up to ten years to reach the level of average school performance by native speakers.

The role of language in learning and the interrelationship between content and language has been pointed out by different international researchers (e.g. Bloome 2005; Cummins 2001; Gibbons 2006) for some years. Yet, there is little research on language and content learning in VET. However, as e.g. as shown by Stephen Billett in Australia (e.g. Billett 2011) or Karin Sandwall in Sweden (Sandwall 2013), vocational language is intrinsic, the role of vocational educators is crucial for positive learning results, and the students' opportunities of guidance and language interaction of greatest importance for the development of vocational knowledge and skills.

This presentation draws on results from two fieldwork studies: the first study was conducted in four upper secondary VET school sites in 2016, the second in five adult education centres in 2018. Different techniques for field work (Czarniawska 2007) were used. The theory practice architectures (e.g. Kemmis et al 2014), provided a framework to identify enabling and constraining learning conditions. Very different conditions for student learning and participation was identified..

The theory of practice architectures has a dialectical ontological base and also includes how the sayings, doings and relations in a practice compose and stabilize the practice. Some significant forms of scaffolding for the second language learners were identified. This presentation will focus on these aspects and will provide two excerpts from classroom and workshop activities: one with teacher-student interactions, one with student-student interactions. The two excerpts will be discussed and analysed with focus on how vocational language and knowledge and skills is enabled in these situations and the pedagogical support will be highlighted. The analyses will be supported by concepts from content and language learning studies (e.g. concepts provided by Bloome 2005; Cummins 2001 and Gibbons 2006).

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3. Timo Halttunen, Tiina Anttila, Vesa Hautala, University of Turku & Aleya Serag El Din, Ghabbour Foundation (GA) - *Learning soft skills in VET and HE through project-based learning (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Learning soft skills in VET and HE through project-based learning |
| AUTHOR(S) and AFFILIATIONS |
| Timo Halttunen, University of Turku (UTU), Finland Tiina Anttila, University of Turku (UTU), Finland Vesa Hautala, University of Turku (UTU), Finland Aleya Serag El Din, Ghabbour Foundation (GA), Egypt |
| KEYWORDS (3-5) |
| teacher conceptions, project-based learning, soft skills, VET |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| work in progress |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

The study focus on soft skills development in Vocational Education and Training (VET) and Higher Education (HE) in the field of engineering. The focus is on project-based learning as a teaching method for soft skills. The study is carried out in Egypt in VET and HE institution with an emphasis on developing engineering students readiness for transition from school to working life.

In Egypt, engineering studies are focused on delivering content rather than creating skills valued by the working life. This paper aims at presenting the analytical framework and preliminary results on analyzing the socio-cultural meanings teachers and students attach to project-based learning and developing of soft skills in VET and HE.

The study comprises of data collected with mixed methods such as questionnaires and interviews adressed to teachers and students. **We seek to identify contextual factors and personal characteristics associated with teachers' conceptions on soft skills development via project-based learning approach.**

Research questions are the following:

- What conceptions teachers have when designing project-based learning?
- What contextual factors and personal characteristics can be identified between teachers?
- What strategies teachers identify and use in teaching project-based learning?

METHODS /METHODOLOGY (up to 100 words)

The data will be collected via questionnaires and semi-structured interviews. Firstly, the teachers in selected Egypt VET and HE institutions will be filling a Conceptions of Learning and Teaching (COLT) questionnaire to identify their conceptions of teaching and learning. As a new addition, soft skills development through project-based learning is included in the questionnaire. Secondly, individual, semi-structured interviews will be based on purposive sampling: teachers with high and low scores on Teacher-centredness and Appreciation of Active Learning will be interviewed in order to maximize contrast in the data sample.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Combining results from questionnaires and interviews, the research aims to underline the eventual differences in conceptions of teaching soft skills via project-based learning in Egypt.

By identifying contextual factors and personal characteristics, we aim at describing the underlying elements and assumptions influencing development of teaching in VET and HE.

Selecting a representative sample, these results will give insight on transition of the teaching from content delivery approach towards working-life oriented, active and collaborative learning.

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Yrkeskunnande och förändring (paperpresentations)

1. **Njål Vidar Traavik, Valborg Kløve-Graue, Egil Eide, Høgskulen på Vestlandet - Yrkesfaglæreren i møte med fremtidens kompetansekrav i Industri 4.0 & 21 st. Century Skills for programfagene Bygg og anlegg (BA), Teknisk og industriell produksjon (TIP) og Elektrofag (EL) (NOR)**

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| Navn: Njål Vidar Traavik Valborg Kløve-Graue Egil Eide | Institusjon: Høgskulen på Vestlandet, Norge |
| E-mail: njål.vidar.traavik@hvl.no ; egil.eide@hvl.no ; valborg.klove-graue@hvl.no | |
| Abstraktittel: Yrkesfaglæreren i møte med fremtidens kompetansekrav i Industri 4.0 & 21 st. Century Skills for programfagene Bygg og anlegg (BA), Teknisk og industriell produksjon (TIP) og Elektrofag (EL) | |
| Bakgrunn og motivasjon: Utgangspunktet for vårt longitudinelle studie er å følge yrkesfaglærere innen Bygg- og anleggsteknikk (BA), Teknisk og industriell produksjon (TIP) og Elektrofag (EL), som gjennomførte en ny samlingsbasert videreutdanning. Studentene sine møter med bransjer, arbeidsliv og teknologi-innovative miljø utgjorde en stor del av innholdet i utdanningen. Kurset ble gjennomført høsten 2018 og våren 2019, og hadde eit omfang på 15 studiepoeng. Målet for utdanningen var hvordan studentene i møte med næringsliv og de ulike bransjers kompetansekrav til yrkesfagutdanningene, kan ta i bruk ny kunnskap om 21 st. Century skills og Industri 4.0 i egen yrkesdidaktiske praksis for å sikre at elevene får en fremtidsrettet, meningsfull og relevant opplæring. | |
| Problemformulering: Vårt forskningsfokus tok utgangspunkt i spørsmålene: <ul style="list-style-type: none">– «Endres yrkesfaglærernes yrkesdidaktiske praksis i møte med fremtidens kompetansekrav Industri 4.0 & 21 st. Century Skills for programfagene BA, EL og TIP i videregående skole?»– Hvordan utvikle en yrkesdidaktisk praksis som sikrer elever en fremtidsrettet og relevant opplæring? | |
| Metode: | |

Vårt forskningsdesign er en longitudinal studie med fire datainnsamlingsstopp underveis, for å kartlegge individuelle varianser i yrkesfaglærernes erfaringer og refleksjoner knyttet til kompetansekrav til fremtidens fagarbeider. Hvordan er kravene presentert av bransjer, arbeids og samfunnsliv? Hvilken betydning vil kravene få for hvordan yrkesfaglærerne legger til rette for læring og didaktisk utvikling i videregående skole, yrkesfaglig studieretning? Det longitudinelle studiet går over 14 måneder, der vi følger yrkesfaglærerne i ulike faser i videreutdanningen. Hovedvekten i vår forskningsmetodiske tilnærming vil bli lagt på, og innenfor, et prospektivt longitudinelt studie, med kvalitative intervjuer og analyser av yrkesfaglærernes refleksjoner gjennom arbeidskrav og digitale fortellinger. Retrospektive intervjuer og analyser gjennomføres ved oppstart av videreutdanningen for å kartlegge yrkesfaglærerne sitt undervisnings- og lærings syn før påbegynt videreutdanning.

Konklusjoner, forventet utbytte og resultater:

Som analyseverktøy for datagrunnlaget vil vi gruppere funn inn i de fire hovedkategoriene: Knowledge, Skills, Attitudes, Values and Ethics, som igjen grupperes inn i fire underkategorier: Ways of Thinking, Ways of Working, Tools for Working, og Living in the World.

Nøkkelord:

Yrkesfag, 21 st. Century Skills, Industri 4.0, Longitudinell prosjektdesign

Paper / work in progress

2. Jørgen T. Østergaard & Hanne Søndergaard, Københavns Professionshøjskole - - *Behov for fremtidige kunnskap og ferdigheter innom cyber (nett)- og informasjonssikkerhet i yrkesopplæringen i Danmark for unge og voksne. Muligheter og utfordringer (DA)*

Bakgrund: Den overordnede hensikten med det samlede prosjekt som inngår i dette studie er, den danske regjeringens nasjonale strategi for cyber (nett)- og informasjonssikkerhet (2018-2021), som skal sikre at befolkningen, selskaberne og myndighederne kjenner og kan håndtere digitale risici (Finansministeriet, 2018). Som en del av strategiens "initiativ 2.1. Digital dømmekraft og kompetencer via uddannelsessystemene" skal der etableres kunnskapsområder på cyber- og informasjonssikkerhet på Danmarks læringsportal (emu.dk) Målet er å bidra til at barn, unge og voksne trygt kan reise på Internett og udnytte de digitale muligheter på en trygg, forsvarlig og etisk korrekt måte. Syftet med denne studien er: Syftet med denne studien er å beskrive de kunnskaper og kompetansebehov som kan utledes av

eksisterende studier, materialanalyse og en av interessentstudier for et bredt spekter av målgrupper som studenter, lærere, pedagogiske stab og ledelsesnivå. Problemformulering: Hvilke kompetenceudviklingsbehov ift. cyber (nett)- og informationssikkerhed kan identificeres for unge og voksne i yrkesuddannelserne? Heriblandt både elever/ kursister samt lærere/undervisere og skoleledelser. Metode: Indledningsvist har vi studeret udvalgte eksisterende undersøgelser om danskernes viden om cyber- og informationssikkerhed. Vi har udvalgt tre undersøgelser, der har bidraget med viden om, hvilke kompetenceudviklingsbehov, der måtte være i forskellige målgrupper og i mindre omfang også hvilke materialeudviklingsbehov, der kan udledes heraf. Dernæst har vi via semistruktureret interviews afdækket centrale videnspersoners/interessenter's vurdering af kompetence- og materialeudviklingsbehov. Der er interviewet 16 udvalgte informanter, der alle arbejder med og har viden om forskellige emner inden for fagfeltet cyber- og informationssikkerhed. Følgende er en oversigt over den metodisk strukturering av dataindsamlingen: NordYrk 2019 – Abstract: Jørgen T. Østergaard jtos@kp.dk og Hanne Søndergaard hsoe@kp.dk National Center for Erhvervspædagogik. Institut for didaktik og digitalisering. Københavns Professionshøjskole. 2 Fokus I præsentationen: Yrkesuddannelser målgruppe unge og voksne. Studiets resultater summeret:

- Danskernes videns- og kompetenceniveau er generelt godt, men kunne være bedre.
- Børn og unges viden og kompetencer skal omsættes til handlinger.
- Voksne mangler – især teknisk – viden og kompetencer ift. at tage ansvaret på sig.
- Der er behov for organisationsdidaktisk udvikling og målrettede strategier.
- Yrkesuddannelser for voksne og unge er oversete målgrupper.
- Der er generelt behov for nytænkning af undervisning i cyber- og informationssikkerhed.
- Der er udfordringer med anvendelse af sociale medier i undervisningen.
- Særlige forhold vedrørende forskelle i alder, køn og generation.
- Flere aktører er vigtige for at kvalificerer undervisningen og området.
- Eksempler på specifikke faglige kompetenceudviklingsbehov.
- Emner indenfor cyber- og informationssikkerhed der med fordel kunne arbejdes mere med.

Slutsats: Præsentationen afrundes med en perspektivering af undersøgelsens fund og mulige betydningen for fremtidens yrkesuddannelser. Pointen vil være at der foreligger en betydelig opgave med opkvalificering af undervisere og ledere både på et didaktisk plan og på et organisatorisk plan. Referencer Danmarks Evalueringsinstitut, EVA (2017). It-færdigheder på et digitaliseret arbejdsmarked. <https://www.eva.dk/voksen-efteruddannelse/it-faerdigheder-paa-digitaliseret-arbejdsmarked> [Lokaliseret 06.08.2018] 3 Digitaliseringsstyrelsen, DKCERT & DeIC (2017). Danskernes informationssikkerhed 2016.

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3. Bjørn Eben og Halvor Spetalen, OsloMet – storbyuniversitetet - *Fremtidens yrkesopplæring innen restaurant- og matfag i Norge (NOR)*

Introduksjon

Forskningsspørsmål: *Hva er nødvendig fagkompetanse for fremtidig yrkesutøvelse i restaurant- og matfagene og hvilke betydning får dette for yrkesopplæring?*

Norge står i dag ved et veiskille når det gjelder organisering og planverket for yrkesfaglig videregående opplæring. Formålet med denne artikkelen er å gi et forskningsbasert innspill slik at det blir samsvar mellom de arbeidsoppgavene som utføres i yrket og innholdet i nye læreplaner som skal introduseres fra høsten 2020.

I rapporten fra Utvalget for reiseliv, matproduksjon og primærnæringene påpekes det at det er stort fokus på mat og matlagning i Norge og stort behov for faglærte yrkesutøvere, særlig kokker (Sundquist, 2016). I Norge er imidlertid rekrutteringen til utdanningsprogrammet restaurant- og matfag (RM) redusert med 30% i årene fra 2006 til 2018 (Statistisk Sentralbyrå, 2018), og kun 55% av elevene som starter utdanning har godkjent fag- eller studiekompetanse etter 5 år. At også faglærte forlater restaurantnæringen etter få år i yrket, er en utfordring for bransjen (Eben, 2018).

Forskningsbasert kunnskap om yrkesutøvelse i restaurant- og matfagene er derfor av særlig betydning for innspill til læreplanutvikling og yrkesfaglærerutdanning nå som regjeringen har satt ned utvalg som skal gjennomgå strukturen i videregående yrkesopplæring med implementering i 2020 (NHO Mat og Drikke, 2015; Regjeringen, 2015).

Dersom læreplanene i videregående skole og den skolebaserte yrkesopplæringen skal være relevant, må innholdet og læringsaktivitetene være i samsvar med arbeidsoppgavene til yrkesutøvere i praksis (Dahlback, Hansen, Haaland, & Sylte, 2011; Hiim, 2012, 2013, 2015). Spørsmålet er hva som regnes for relevant kompetanse i dag og i fremtiden. Det er derfor viktig å både kartlegge yrkesutøvelsen i praksisfeltet slik at den skolebaserte yrkesopplæringen kan speiles i arbeidsoppgavene som utføres i restaurant- og matfagbransjen (Hansen & Haaland, 2015; Spetalen, 2010) studere framskrivninger av nødvendig yrkeskompetanse (Meld. St. 2016.2, 2016 - 2017; NOU 2018:2, 2018)

Når organiseringen og planverket for yrkesopplæringen i den videregående skolen i Norge skal revideres (Regjeringen, 2015), er det viktig å påse at det er samsvar og relevans mellom det som trenes i den skolebaserte opplæringen og kompetansekravene i ulike yrker (Hiim, 2017).

NHO`s kompetansebarometer (Rørstad, Børing, Solberg, & Carlsten, 2017) viser et udekket behov for faglært kompetanse innenfor restaurant og matfagene. I NOU 2018:2 (NOU 2018:2, 2018) stadfestes det at bedrifter innen nærings- og nytelsesmiddelnæringen har problemer med å rekruttere faglært arbeidskraft og til stor del ansetter personale med lavere kompetanse enn ønsket.

Et stadig økende antall serveringsbedrifter (Rørstad et al., 2017) kan likevel tyde på at restaurantbransjen håndterer denne situasjonen relativt godt ved å benytte ufaglært arbeidskraft i stor grad. Arbeidsgivere har tilpasset serveringskonseptene slik at man ikke har så stort behov for faglært personale som tidligere. Dette gjør de ved å organisere driften i det vi metaforisk kaller «1. etasje» og «2. etasjearbeid». Hva innebærer dette, jo at ledere og arbeidstakere i «2.etasje» utvikler og implementerer standardiserte konsepter og produkter, mens «1. etasjearbeiderne» utfører arbeidsoppgavene etter standardiserte resepter og arbeidsbeskrivelser. På denne måten kan arbeidet i «1.etasje» kvalitetssikres og standardiseres på en slik måte at behovet for faglært personale reduseres. Der det arbeider både faglært og ufaglært personale i «1.etasje», utfører disse stort sett de samme arbeidsoppgaver (Spetalen, Eben, & Jahanlu, 2016).

Metode

Høsten 2016 ble det gjennomført en kvantitativ spørreundersøkelse blant 394 ansatte i restaurant og matfagene der vi kartla hvor hyppig den enkelte yrkesutøver gjennomførte ulike arbeidsoppgaver på arbeidsplassen (Spetalen et al., 2016). Det ble gjennomført både univariate og bivariate analyser av datamaterialet.

Våren 2019 vil det også bli gjennomført to studier for å supplere resultatene fra den kvantitative undersøkelsen høsten 2016. (1) En kvalitativ tekstanalyse av forslag til sluttkompetanse blant faglærte yrkesutøvere i ulike yrker innenfor restaurant- og matfag, (2) en mixed methods studie om hvordan fordelingen av ansvar og arbeidsoppgaver blant faglærte og ufaglærte i restaurantbedrifter.

Resultat

Resultatene av den kvantitative undersøkelsen fra 2016 er utgangspunktet for problemstillingen.

Tabell 1. Oversikt over hvilke arbeidsoppgaver som er systematisk skjevfordelt mellom faglærte og ufaglærte i et utvalg av yrker i restaurant- og matfagene.

| Arbeidsplass/kluster | Renhold | Kvalitets-sikring | Forberedende produksjons-arbeid | Produksjons-arbeid | Meny-og produkt-utvikling | Kunde-kontakt |
|----------------------|---------|-------------------|---------------------------------|--------------------|---------------------------|---------------|
| Restaurantkokk | ,300 | ,063 | ,008 | ,091 | ,018 | ,253 |
| Servitør | ,133 | ,094 | ,974 | ,534 | ,003 | ,811 |
| Institusjonskokk | ,197 | ,003 | ,026 | ,049 | ,249 | ,254 |

| | | | | | | |
|---------------|------|------|------|------|------|------|
| Matindustri | ,681 | ,504 | ,990 | ,729 | ,245 | |
| Butikkslakter | ,746 | ,015 | ,290 | ,286 | ,714 | ,399 |
| Konditor | ,289 | ,274 | ,217 | ,020 | ,425 | ,139 |

I Tabell 1 vises signifikante samvariasjoner mellom ulike arbeidsoppgaver og om respondentene er faglærte eller ufaglærte fordelt på et utvalg yrker i restaurant- og matfag. Tallene som er uthevet viser en signifikant korrelasjon mellom fagutdanning og antall ganger arbeidsoppgaven utføres. Korrelasjoner som ikke er uthevet viser at det ikke er noen systematisk samvariasjon mellom fagutdanning og hvor hyppig arbeidsoppgavene utføres. Disse resultatene antyder at det skiller relativt lite mellom hvor hyppig faglærte og ufaglærte gjennomfører ulike arbeidsoppgaver, men at det også er relativt store forskjeller internt i yrkene som er undersøkt.

Diskusjon

Sett fra vårt ståsted må fagutdanningen inneholde elementer som gjør fagarbeideren kvalifisert til å utføre arbeidsoppgaver som vil skape merverdi for bedriften. Vi tenker at fagutdanning skal være et konkurransefortrinn både for yrkesutøveren og bedriften. Skal det å være faglært kunne forsvares, sett fra både arbeidsgiver og arbeidstaker, må faglærte kunne anvende en *fagkompetanse* som ufaglært mangler. Digitale løsninger er stadig mer viktig for restaurant- og matfagbransjen. En faglært må inneha *digital kompetanse* slik at denne vil tilføre en «merverdi» til bedriften i en stadig mer digitalisert verden. *Bærekraftkompetanse* vil være en sentral kompetanse i alle former for produkt- og serviceutvikling i framtiden. Det norske samfunnet er i stadig utvikling og faglærte yrkesutøver i RM-bransjen må ha kompetanse i å *tilpasse* konsepter, salgsprodukter og retter etter religiøse, etiske, ernæringskrav, dietter, allergier bærekraft etc. «Sosial skills», altså evnen til kommunikasjon, problemløsning og praktisk tilrettelegging for å imøtekomme kundens behov, vil også bli en stadig viktigere kompetanse for faglærte yrkesutøvere. De samme momenter er fremhevet som viktige i Nasjonal Kompetansepolitisk strategi (Kunnskapsdepartementet, 2017; NOU 2018:2, 2018).

Hva vil dette bety for yrkesopplæring? Innholdet og læringsaktivitetene i den skolebaserte yrkesopplæringen og i læretiden får betydning for hvilke rolle og arbeidsoppgaver faglærte skal ha i bedriftene. Hvis det etableres et tydeligere skille mellom faglærtes rolle og arbeidsoppgaver og de ufaglærte, bør det da legges større vekt på den arbeidsplassbaserte opplæringen? Kan faglærte yrkesutøver få en rolle som «mester» med ansvar for opplæringen av spesifikke teknikker som trenges i en bestemt bedrift (Karlsen, 2009; Langli & Melvold, 2016; Nore & Lahn, 2014). I denne diskusjonen bør man også trekke inn perspektivet med «påfyll» og videreutdanning for faglært personale, siden mangelen på dette oppgis som en av årsakene til å forlate yrket etter kort tid (Eben, 2018). En annen tanke er den sveitsiske modellen hvor man tilegner seg kunnskap og sertifikater på ulike nivå for å utføre ulike arbeidsoperasjoner (Wettstein, Schmid, & Gonon, 2017).

Helt til slutt ser vi også at resultatene fra prosjekter kan benyttes som innspill i det pågående arbeidet med læreplaner i restaurant- og matfag.

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Kompetens I yrkeslärarutbildning (paperpresentations)

1. **Hamid Asghari, Annelie Andersén, Maria Petersson, Karlstads universitet - *Universitetslärares berättelser om undervisning (SWE)***

Utifrån ett berättelseperspektiv har vi analyserat några svenska lärarutbildares syn på sin undervisning. Den analyserade empirin kommer från ett pågående projekt där vi utgår från att det som framträder i lärarnas berättelser om sin undervisning har stor betydelse för studenternas lärande och lärarutbildningen.

Hittills har vi intervjuat ett antal universitetslärare på korta lärarutbildningar vid ett svenskt lärosäte. Intervjumaterialet har analyserats utifrån Hiims didaktiska relationsmodell beträffande interaktionen mellan mål, kunskapsinnehåll, ramfaktorer, lärandeprocessen, inlärningsförmåga och utvärdering. Modellen används som ett teoretiskt ramverk, dvs. berättelserna placeras i detta ramverk och förstås i relation till de didaktiska delarna om undervisning och lärande.

En första analys av universitetslärares berättelser om undervisning visar att tolkningen av lärandemålen, konstruktion av uppgifter och bedömning av uppgifterna mot lärandemålen framträder på olika sätt hos olika lärare. Universitetslärare har olika yrkes- och utbildningsbakgrunder på olika akademiska nivåer och dessa tolkningsolikheter kan relateras till deras tidigare erfarenheter. Vad och hur universitetslärarna ska undervisa kan påverkas av ramfaktorer. Bland ramfaktorerna kan nämnas antal närträffar som är förbestämda eller studiehandledningar som sätter ramen för uppgiftskonstruktioner. Förbestämda närträffar eller studiehandledningar kan komma i konflikt med exempelvis universitetslärares undervisningsplanering, examinationseminarier eller val av kurslitteratur. Analysen visar också att även här universitetslärarna utgår från sina egna erfarenheter när det gäller hantering av ramfaktorerna. Utifrån studenternas inlärningsförmågor planerar universitetslärarna sin undervisning, väljer specifikt läromedel, undervisningsmetoder och litteratur. Normen för vad studenters inlärningsförmåga kan vara framträder på olika sätt hos olika universitetslärare. Utvärdering av vad som ska undervisas och hur det ska undervisas byggs bland annat på studentunderlaget, lärandemål och kunskapsinnehåll för ämnet. Även här utgår universitetslärarna från sina egna erfarenheter av vilket studentunderlag de har framför sig (yrkeslärarstudenter eller ämneslärarstudenter) när de planerar undervisningen, konstruerar uppgifter och examinerar studenterna.

2. **Anna Annerberg - Att vetenskapligt förankra ett yrkeslärarprogram: erfarenheter från ett utvecklingsprojekt (SWE)**

Demands on the scientific foundation of Swedish Vocational Teacher Education has led to a development project on academic competence at Dalarna University in 2018. The project contained two sub-projects; the construction of a matrix, to display the progression of students' academic competence; and the implementation of a series of seminars on VET research. This article presents the point of departure and the methods used, together with the results of

mappings and analysis of four different aspects of academic competence. This inventory of features of academic competence in teacher education, evokes a wide range of questions on the meaning and consequence of scientific foundation, the research-practice relationship and concrete questions concerning course content.

3. Eero Talonen, Oulu University of Applied Sciences - *Kompetensbaserad specialyrkeslärarutbildning bygger på arbetslivets behov (SWE)*

Specialyrkeslärarutbildning ger behörighet till specialundervisning (särskilt stöd) på yrkesinriktade andra stadiet. Kompetensbaserad utbildning är en naturlig utgångspunkt för behöriga lärare inom yrkesutbildningen eller högskolan, eftersom de redan har mångsidig arbets- och studiebakgrund. I utbildningen vid Yrkespedagogiska lärarhögskolan vid Uleåborgs yrkeshögskola får de nya specialyrkeslärarna dessutom en personlig erfarenhet av systemet som används i yrkesutbildningar på andra stadiet (Den nya yrkesutbildningen). I början av studierna förklaras ideologin bakom den kompetensbaserade processen. Det kan kännas utmanande att utvärdera sitt kunnande i relation till utbildningens målsättningar. Därför har målsättningarna en viss och fast terminologi där till exempel predikatet avslöjar kunnandekravet: *att reflektera* kräver ett djupare kunnande än *att förstå*. Läroplanen är enkel: en tabell med 38 målsättningar, som konkretiseras ytterligare av bedömningskriterierna. ([länk till målsättningar och bedömningskriterier](#); Opetussuunnitelmat 2018–2019).

De studerande är oftast motiverade att förvärva kunnandet på sitt eget arbete. Det är viktigt att stödja deras egen planering så att stigen blir egen och individuell. Vid inledningsskedet av studierna analyserar varje studerande sitt kunnande genom självbedömning. Tutorerna kan hjälpa till med identifieringen av kunnandet och avsikten är att tillsammans planera hur det saknade kunnandet inhämtas. Genom den personliga tillämpningen erkänns det kunnande som den studerande har med sig. Avsikten är inte att höja målsättningarna om hen redan har tillräcklig kompetens. Det finns varken några inlärningsuppgifter eller andra obligatoriska steg, utan de studerande själva planerar hur de vill förvärva och visa sitt kunnande. Det är viktigt att sporra deras egna planeringar. På detta sätt kommer de studerande ofta att utveckla sitt arbete och hela läroverket under studierna. När kunnandet har förvärvats visar den studerande sitt kunnande enligt kriterierna. Specialyrkeslärarstuderandena har i allmänhet en lång arbetserfarenhet eller redan tidigare avlagda specialpedagogiska studier, vilka har åstadkommit valid kompetens. De individuella stigarna resulterar i varierande studietider: den snabbaste studerande blev färdig inom 4 månader medan studierättigheten varar i 3 år. (Karjalainen, A 2018; Osaamisperusteisuus. OAMK).

Yrkespedagogiska lärarhögskolan vid Uleåborgs yrkeshögskola samlar systematiskt in studerandenas erfarenheter om kompetensbaserad specialyrkeslärarutbildning. Strax efter studierna fyller studerandena i en enkät om hur de olika skedena vid utbildningen fungerade

från den första självbedömningen (identifiering av eget kunnande) ända till den sista visningen (och erkännandet) av kunnandet. Avsikten är att presentera på svenska det kompetensbaserade sättet att förverkliga specialyrkeslärarutbildningen i enlighet med arbetslivets behov. Vid presentationen kommer även fram studerandenas erfarenheter om utbildningen.

Nyckelord: kompetensbaserad utbildning, särskilt stöd, specialyrkeslärare, yrkespedagogik, arbetslivsnära studier

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Assessment and validation (paperpresentations)

1. **Leena Kaikkonen, Irmeli Maunonen-Eskelinen, Arja Pakkala, JAMK University of Applied Sciences. Vita Zunda, Baltic Bright, LV - *The impact of a short training on skills development of tutors for workplace learning (ENG)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
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| Paper |
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| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| The impact of a short training on skills development of tutors for workplace learning |
| AUTHOR(S) and AFFILIATIONS |
| Leena Kaikkonen* leena.kaikkonen@jamk.fi ; Irmeli Maunonen-Eskelinen* irmeli.maunonen-eskelinen@jamk.fi ; Arja Pakkala* Arja.pakkala@jamk.fi ; Vita Zunda** zunda.vita@gmail.com |
| *JAMK University of Applied Sciences, FI; ** Baltic Bright, LV |
| KEYWORDS (3-5) |
| work-based learning, vocational education, professional development, tutor training |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Work-Based Learning (WBL) is increasingly promoted in Vocational Education and Training (VET) across Europe and as a part of European policies (EC 2013). Despite the widely shared willingness to promote WBL in VET, Mikkonen et al (2017) found out in their recent review that there is quite much empirical research done on WBL as such, but very little of it focuses on the question of guiding VET students in WBL. This is followed with a question regarding the competence of tutors and their training.</p> <p>The research described here focuses on an experimentation on training of WBL tutors in the Baltic countries. They are willing to expand WBL and apprenticeships in VET and have considered training of WBL tutors. So far, the training of VET and workplace tutors has based on separate initiatives, not coordinated among the three countries. Now, the Baltic countries are developing training of WBL tutors as a 'tandem training', in which tutors from VET schools and enterprises are trained together. In the experimentation, this model is tested and piloted. The research following the experimentation investigates how the WBL tutors participating in the joint training self-assess their skills in the beginning and some months after the tutor training.</p> |
| METHODS /METHODOLOGY (up to 100 words) |
| The methodology used was Participatory Action Research based on "before" and "after" approach enabling development of the training approach and content during the process. The research included three cycles. In all phases, two questionnaires were sent to the tutors. The "before" phase refers to the data collection in the beginning of the tutor training. The experimentation involved 820 WBL tutors from the Baltic countries. About 70% responded to the "beginning" online questionnaires and of these |

over 40% responded in the “after” survey a few months later. The data was analysed using both quantitative and qualitative methods.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Even though the tutor training is a short-term training, the results show that the trained tutors’ experienced that their skills have developed. In the pilot phase, the tutors self-assessed their skills lower than in the 2nd and 3rd phases. This can be a sign of the improvement of the training after the pilot phase. Furthermore, there are differences between the countries. In Estonia, the tutors self-assessed their skills lower than in Latvia and Lithuania. When analyzing the different competence areas of the tutors, planning skills of work place learning were the weakest.

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“Testing New Approaches to Training VET and Workplace Tutors for Work Based Learning (TTT4WBL)” Erasmus + Project no. 582951-EPP-1-2016-2-LV-EPPKA3-PI. Project documents.

2. Vanhanen-Nuutinen Liisa, Kotila Hannu & Mäki Kimmo, Haaga-Helia University of Applied Sciences - *Validating Work-based Learning in Higher education (ENG)*

The interest in this study is in those higher education students, who work alongside studies. The purpose is to discuss the issue of employment based on empirical research and in the light of integrative learning.

In integrative pedagogy learning is e.g. ability to connect learner's subjective experiences and working life skills with academic knowledge. The model integrates working and learning, thinking and action, and domain specific and generic skills. Students are encouraged to use conceptual tools (theoretical concepts, principles or models) while reflecting on their practical experiences. In this way, they will be able to rise from the concrete experience to a more abstract level in their thinking, and their understanding will deepen. (Tynjälä, 2008)

The research questions were:

- 1 How are the number of weekly working hours and quality of work associated to study progress among employed students in higher education?
- 2 How are the number of weekly working hours and quality of work associated to learning skills among employed students in higher education?
- 3 How do the teaching and guidance practices support integration of learning at work and studies?

The LWWL (Learning at Work & Work and Learning) inventory was used in data collection (Saari et al 2017). The inventory was developed to explore the work-life related synergy and institutional practices contributing to both student motivation and learning outcomes in higher education. The questionnaire included a module of student self-assessed employment and study skills inventory as well as items gasping field of study related relevance of work experience gained during semesters.

A total of 2401 UAS students completed the survey with a response rate of 21,9 (accounting for sampling design effect). Statistical analysis was performed with SPSS version 23.

The amount of weekly working hours and quality of work are essential to study motivation and progress in studies. Employment in the field of studies seem to increase study motivation and effect study progress. Teaching and guidance practices, where learning at work is acknowledged (recognized and validated), support the synergy of learning at work and at school.

Student employment during studies has potential to development of learning and pedagogics in higher education. Learning at work creates authentic learning experiences. Reflections of these experiences assist students' learning about work, and can also develop their assessment skills at work. Recognising factors associated to successful integration of working hours (quantity of hours), quality of tasks at work and the field of work, can help the teachers to support students learning and proceeding in their studies.

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3. Torunn Arntsen Sajjad - *Migration background as competence (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Migration background as competence |
| AUTHOR(S) and AFFILIATIONS |
| Torunn Arntsen Sajjad |
| KEYWORDS (3-5) |
| Migration background, senior professionals, competence, prior learning |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>The study identifies different types of competences senior employees with migration background develop and use in their work, how they draw on their backgrounds and its significance in their working practices in Norway. The employees are teachers in two schools for adult education for immigrants and nurses in a nursing home. The study also accessed how their managers perceive and reflect upon the significance of their employees' backgrounds, and the employees' affordances for action offered by the priorities of the managers. Therefore, the purpose is to analyse the significance of their background and relate this to the kinds of actions that the employees were able to take. Competences connected to migration background as used here, includes formal education and knowledge acquired through growing up and being part of another society, their cultural repertoires, and personal experiences before and during the migration processes; a process who do not have an end. The concept migration background therefore captures the context of the migrants before and during migration. The theoretical framework is related to competence (Jenkins, 1998), affordance (for action) (Gibson, 1977, 1979) and situated learning (Lave & Wenger 1991).</p> |
| METHODS /METHODOLOGY (up to 100 words) |
| This study is a sub-study of Learning trajectories in the workplace, which is part of the ongoing research project Silver Lining – a study of employability and learning |

trajectories of late career learners.¹ The ethnographic fieldwork was based on observation/participant observation and interviews following teachers when they were conducting their main work assignment; teaching, and nurses, when they conducted their work assignment. The study was inspired by Gherardi (2012), and Lave and Wenger (1991) on practice-based studies, and the focus was on what employees did as they were doing their everyday work tasks. 7 teachers and nurses participated. In addition, 5 managers were interviewed.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

In this study, different types of prior learning were identified during the employees working practices, showing how they use their competences in new ways in Norway and draw on informal competences different from each other and different from colleagues without a migration background. An implication of a narrow understanding of competences as only formal, may contribute to a narrow understanding of working practices of employees in general.

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Session 2 (Thursday June 13th 10.30-12.00)

Didatik I yrkesutbildning (paperpresentations)

1. **Nina Kilbrink, Stig-Börje Asplund, Hamid Asghari, Karlstads universitet - *Yrkeslärande i interaktion på VVS- och fastighetsprogrammet (SWE)***

Lärande och undervisning inom teknisk gymnasial yrkesutbildning är ett underbeforskat fält, och därför vet vi väldigt lite om de processer som pågår där (Asplund & Kilbrink, 2018; Berglund, 2009; Pahl, 2014). För att öka kunskaperna om dessa processer genomför vi nu ett VR-finansierat projekt om yrkeslärande inom teknisk gymnasial yrkesutbildning (dnr 2017-03552), där detta paper är en första studie med fokus på VVS- och fastighetsprogrammet. Syftet med detta paper är att studera vad som händer under ett lektionspass i verkstaden och vilket lärande som möjliggörs i interaktionen mellan lärare och elever under ett sådant pass inom VVS- och fastighetsprogrammet. Detta görs med utgångspunkt i frågorna *Vad är möjligt att lära i relation till de iscensatta lärandeobjekten och hur görs detta lärande i interaktion mellan lärare och elever?* De teoretiska och metodologiska grundantagandena hämtas från CA (samtalsanalys) och variationsteori (jfr Asplund & Kilbrink, 2018; Kilbrink & Asplund, 2016; 2018). Det innebär bland annat att vi ser lärande som något som görs i interaktion och att lärandet alltid har ett mer eller mindre uttalat innehåll (lärandeobjekt). För att få syn på det innehåll och det lärande som görs i interaktionen mellan en yrkeslärare och dennes elever under ett lektionspass följer vi läraren och en fokuselev och filmar dem och analyserar sedan filmen med hjälp av analytiska verktyg hämtade från CA och variationsteori. Vi har sett att läraren interagerar med olika elever i relation till flera olika innehåll under ett lektionspass, vilket gör att läraren är involverad i och ska ha översikt över många olika lärandeprocesser under ett och samma pass. Detta gör också att lärarens möten med varje enskild elev blir ganska korta, vilket innebär att de enskilda elevernas möten med läraren under ett lektionspass måste vara effektiva och innehållsrika för att lärandeprocesserna ska gå framåt. Vi kommer vid konferensen visa exempel på hur dessa möten kan se ut och hur lärandeinnehållet synliggörs i interaktionen, samt hur vi kan få syn på detta med hjälp av de teoretiska verktyg vi använder oss av i studien.

2. Arnt Louw, Aalborg Universitet København - *Det gode uddannelsesliv i praktikken på social- og sundhedshjælperuddannelsen, social- og sundhedsassistentuddannelsen og sygeplejerskeuddannelsen i Danmark (DA)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| Dansk |
| TITLE |
| Det gode uddannelsesliv i praktikken på social- og sundhedshjælperuddannelsen, social- og sundhedsassistentuddannelsen og sygeplejerskeuddannelsen i Danmark |
| AUTHOR(S) and AFFILIATIONS |
| Arnt Louw, lektor, ph.dk., Center for Ungdomsforskning, Institut for Læring og Filosofi, Aalborg Universitet København. Mail: avl@learning.aau.dk |
| KEYWORDS (3-5) |
| Læring i praktikken, faglig identifikation, motivation, arbejdsliv, faglige fællesskaber |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Forskning |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>De danske erhvervsskoler kæmper med at tiltrække og fastholde de unge i erhvervsuddannelserne (eud). Samtidig mangler det danske arbejdsmarked faglærte unge. Fremskrivninger viser, at vi står overfor at mangle faglært arbejdskraft i udstrakt grad de kommende år, hvor de store årgange går på pension (AE-rådet 2017). Praktikforløbet på eud er her et underbelyst område. Afhængig af uddannelsen falder mellem 5 og 30 % af de unge fra deres erhvervsuddannelse allerede i starten af deres første praktikforløb, og fx på social- og sundhedsuddannelserne falder omkring 12 % fra i starten af deres første praktik. (Undervisningsministeriets datavarehus). Der savnes dog viden om årsagerne til frafald fra praktikken og hvordan de unge oplever mødet med praktikstederne.</p> <p>På baggrund af et omfattende litteraturstudie præsenteres i dette paper viden om unges udfordringer og potentialer i praktikforløb på social- og sundhedshjælperuddannelsen (SOSU), social- og sundhedsassistentuddannelsen (SSA) og sygeplejerskeuddannelsen ud fra forskningsspørgsmålene:</p> <ul style="list-style-type: none"> • Hvordan oplever dagens unge deres uddannelsesliv, mens de er i praktik på SOSU-, SSA- og sygeplejerskeuddannelserne? • Hvordan spiller forskellige praktiksteder og praktikvejledere sammen med de unges motivation for uddannelse? • Hvilke konkrete faktorer henholdsvis øger og mindsker de unges lyst til og motivation for uddannelsen, deres faglige identifikationsmuligheder med erhvervet samt deres overvejelser omkring deres fremtidige arbejdsliv? |
| METHODS /METHODOLOGY (up to 100 words) |
| Litteraturstudiet baserer sig på en systematisk bloksøgning i EbsccoHost, ProQuest, Google Scholar, forskningsdatabassen og bibliotek.dk og primo (Aalborg |

universitetsbiblioteks database). Blok 1 udgøres af søgeordene: gennemførelse, frafald, fastholdelse, trivsel, motivation, faglig identifikation, faglig identitet, mening. Blok 2: Praktik. Blok 3: Vekselluddannelse, erhvervsuddannelse, SOSU, Social- og sundhedsuddannelser. Social- og sundhedsassistentuddannelser, sygeplejerskeuddannelser (dupleret på engelsk). Resultatet af søgningen er: 3 Danske database: 238 (brutto) / 46 (udvalgt), Google Scholar: 521 (brutto) / 11 (udvalgt), 2 Internationale databaser (EbscoHost / ProQuest): 200 (brutto) / 18 (udvalgt). Bruttoliste i alt: 75. Deraf 50 unikke reference udvalgt til anvendelse ved nærstudie.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Udvalgte resultater fra notatet peger på, at faglige fællesskaber er centralt for eleverne i praktikken. Her er det væsentligt for de unge i en læringsmæssig forstand, at møde andre elever i sammenhænge, hvor de kan dele erfaringer og oplevelser. Vejlederen er samtidigt central som guide til at opbygge elevens vej ind i de faglige fællesskaber på praktikstedet. Eleverne i praktik oplever endvidere et dilemma i forhold til deres faglige identitet som elev og som kollega på en arbejdsplads. Refleksion kan være et element, der kan støtte deres muligheder for skabe helhed og sammenhænge i deres uddannelse.

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AE-rådet 2017: Rekordlav andel af de unge går den faglærte vej.

3. Jan Axelsson, Nina Kilbrink, Stig-Börje Asplund, Karlstads universitet - *Learning study i svetsundervisning – en yrkeslärares professionsutveckling (SWE)*

Undervisningsinnehållet (lärandeobjektet) i gymnasieskolans yrkesutbildning förefaller ofta väl konkretiserat och definierat. Exempelvis anger det centrala innehållet i kursen Kälsvets 1 (Skolverket, 2011) att undervisningen skall behandla svetsning av kälfogar i relevanta svetslägen med vald svetsmetod. Således är praktisk svetsning av kälfog i svetsmetoden TIG, svetsläge PB, ett relevant och synbarligen väldefinierat och konkretiserat lärandeobjekt. Vid närmare granskning framstår dock de didaktiska övervägandena rörande lärandeobjektet betydligt mer komplexa. Till exempel kan en svetslärare i relation till nämnda lärandeobjekt ställa sig följande frågor: Hur skall ett lärandeobjekts första övning presenteras? Hur många elever bör delta vid en första övning? Vilken informationsmängd skall förmedlas och i vilken ordning? Behöver lärandeobjektet brytas ner i mindre delar? Liknande grundläggande didaktiska frågeställningar rörande lärandeobjekt förekommer i flertalet yrkesutbildningar och även om vad- och hur-aspekten tidigare har studerats (jfr Asplund & Kilbrink, 2018; Kilbrink & Asplund, 2016), behövs fördjupade studier för att synliggöra yrkeslärares överväganden runt lärandeobjekt, lärandesituation och interaktion mellan lärare och elev. För att möta detta behov genomförs ett aktionsforskningsprojekt av två forskare och en yrkesverksam svetslärare ("Konsten att lära sig svetsa", finansierat av Skolforskningsinstitutet, dnr: 2017-

00056). Syftet med detta projekt är att fördjupa kunskaperna om sambandet mellan undervisning och lärande av ett lärandeobjekt i teknisk yrkesutbildning. Projektet är upplagt som en iterativ studie inspirerad av Learning study-metoden (Pang & Ling, 2012). I denna presentation beskrivs hur lärandeobjektet svetsning av kälfog i svetsmetoden TIG, svetsläge PB, ytterligare kan definieras, konkretiseras och delas upp i kritiska aspekter, samt hur en yrkeslärares professionsutveckling kan stimuleras genom reflektion av lärandeprocessen i dialog med två forskare.

Yrkeslärares undervisning har filmats i iterativa cykler. De två teoretiska perspektiven variationsteori (Marton & Tsui, 2004) och samtalsanalys (Sahlström, 2011; Sidnell & Stivers, 2013) har förts samman i forskningsprojektet och med utgångspunkt i dessa har det filmade materialet analyserats av forskarna och yrkesläraren gemensamt. Empirin består av videoinspelat material, inspelade samtal samt loggboksanteckningar som forskare och yrkeslärare fört fortlöpande under studien.

Efter analys av och samtal om det filmade materialet har yrkesläraren i progressionen av undervisningscykler steg för steg förändrat sin undervisning. De preliminära forskningsresultaten visar hur reflektion rörande ett lärandeobjekt, genom användande av perspektiven variationsteori och samtalsanalys, lett till att kritiska aspekter av lärandeobjektet i lärandet lyfts fram och orienterats emot. På konferensen kommer vi att visa på konkreta exempel på hur detta kan ske.

Digital tools and skills (paperpresentations)

1. **Laura Hirsto, University of Eastern Finland & University of Helsinki. Sanna Väisänen & Ameba-team, University of Eastern Finland - *Theoretical and empirical perspectives into learning worklife skills through flipped learning* (ENG)**

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Theoretical and empirical perspectives into learning worklife skills through flipped learning |
| AUTHOR(S) and AFFILIATIONS |
| Laura Hirsto, laura.hirsto@uef.fi , University of Eastern Finland, University of Helsinki Sanna Väisänen, sanna.m.vaisanen@uef.fi , University of Eastern Finland Ameba-team, University of Eastern Finland |
| KEYWORDS (3-5) |
| flipped learning, worklife skills, learning environments |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| In this paper we will discuss theoretical perspectives on the possibilities of how flipped learning environment could support development of worklife skills in higher education. According to recent empirical perspectives into skills of Finnish university students it seems that university studies are not able to support students in developing their collaboration and problem solving skills (Aarresaari, 2018). Flipped learning is not only a single model but it is a umbrella of higher education pedagogical approaches. In general, the flipped learning models include the idea that instead of teacher-led lecturing, the students are provided with online material, mainly videos, before face-2-face lecture. In this way the actual f2f lecture can be used for discussion and collaborative activities based on materials student have tried to acquire in advance (Stonebraker, 2015). Models of flipped learning include theoretically the elements of integrative pedagogy (Virtanen & Tynjälä, 2018), which is considered to describe a fertile environment for students' expertise development. In this paper we aim to further understand of the criteria and possibilities of supporting students' worklife skills. We will present the preliminary findings of teachers' experiences, who have teach through flipped learning models. |
| METHODS /METHODOLOGY (up to 100 words) |
| Participants for this study were selected among 100 university teachers, who had participated in the educational development project during which they had designed at least in of their courses through flipped classroom design. Interview questions include perspectives of how university teachers perceive worklife skills in various fields, and how flipped classroom environment can support students in developing their expertise and worklife skills in these respect. Semi-structured interview strategy is used, and the data are analyzed by qualitative content analysis. |
| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
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According to our preliminary perspectives, university teachers seem to perceive that flipped classroom method has the potential to support the development of students' expertise and worklife skills quite well. Teachers talked about knowledge sharing, reciprocal and interactive working and learning processes, and networking, which can all be supported by a flipped classroom model. Further, the perspectives that teachers emphasize were the elements of integrative pedagogy, which strengthened the theoretical perspective that flipped learning may provide a fertile environment for developing student expertise. However, it also seems clear that designing the special flipped learning environment requires careful planning to achieve that.

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Virtanen, A., & Tynjälä, P. (2018). Factors explaining the learning of generic skills: a study of university students' experiences. *Teaching in Higher Education*. 1-15. doi: 10.1080/13562517.2018.1515195

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2. **Janne Kontio, Stockholm University and Karlstad University, Stig-Börje Asplund
Karlstad University - Collective and individual use of smartphones: The case of
Swedish upper secondary Building and construction and Hairdresser educations
(ENG)**

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Collective and individual use of smartphones : The case of Swedish upper secondary Building and construction and Hairdresser educations |
| AUTHOR(S) and AFFILIATIONS |
| <p>Janne Kontio is a Doctor of Philosophy (PhD) in education, currently working as a researcher and lecturer at the department of Education at Stockholm University and as a post doc at Karlstad University, Sweden</p> <p>Stig-Börje Asplund is Associate Professor at the Department of Educational Studies at Karlstad University in Sweden.</p> |
| KEYWORDS (3-5) |
| Smartphones, digitization, vocational education, embodiment, interaction |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Current studies show that in Sweden virtually every upper secondary student (98%) has access to a smartphone (Alexandersson & Davidsson, 2014) and that the phones are used more or less openly during lessons (Asplund, Olin-Scheller & Tanner, 2018). One of the purposes of this study is to fill a very specific and acute gap; in addition to the few studies on youth and digitization, smartphones and other mobile tools, it is very clear that the field of research concerning these issues in regards to vocational education and training is close to non-existent (however, see Asplund & Kontio, in press).</p> <p>This study has a special focus on the use of smartphones among students in two Swedish study programs in upper secondary school; one traditionally male education, the Building and construction program; and one traditionally female education, the Hairdresser program. The results derive from a larger video-</p> |

ethnographic project with the aim to explore the role of smartphone usage in upper secondary classrooms in Sweden.

Here we study what collective and individual features of mobile usage look like, and what their interactional purposes are. More precisely, the purpose is to study the embodied interactional processes the students engage in when using their smartphones and how these processes relate to their shaping of a professional identity.

METHODS /METHODOLOGY (up to 100 words)

In this project we have used new and innovative methods regarding how students' digital activities in the classroom could be captured and studied. Previous research on youth and smart phones note that it has been difficult to capture not only the fact that the phones are used, but also when they are used, and what student's do when they use them (see Pascoe, 2012). Here we have been able to mirror the students' smart phones and synced those recordings with video recordings made with traditional cameras. All in all, the data collection consists of 75 hours of video recorded data.

During our field work, we have studied classes where the teaching of theoretical concepts has been in focus, as well as the classes where practical work has been done inside and outside different workshops and classrooms throughout the school.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

As we have been able to depict in previous studies within the larger project (e.g. Olin-Scheller & Tanner, 2015; Sahlström, Tanner & Valasmo, forthcoming; Tanner et al., 2017), the students mostly used the smart phones in the naturally occurring pauses, the so-called in-between spaces, that happen for instance when students move between classrooms, or when they are done with one assignment and wait for some new teacher-initiated activity. But we also noted some occasions where the students used the phone during a teacher's instruction, during movie-viewings, and in situations when students were expected to work on their assignments, either by themselves or in groups.

While the smartphones were used individually to a notably higher extent by the students in the hairdressing classroom, there were significantly more collective features in the smartphone usage of the students in the building and construction class. In the latter, the students showed up what they did on their smartphones for several of their classmates at the same time, and we also witnessed numerous situations where the students used each other's cell phones; interactional traits that we did not witness at all in the studied hairdressing classes.

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Yrkerskunnande och framtid (workshop)

1. **Dorrit Sørensen og Henrik Hersom, Københavns Professionshøjskole-
*Pædagogisk udviklingsarbejde i erhvervsuddannelserne i bevægelse mellem tradition og fornyelse (DA)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Workshop |
| LANGUAGE FOR PRESENTATION |
| Dansk |
| TITLE |
| Pædagogisk udviklingsarbejde i erhvervsuddannelserne i bevægelse mellem tradition og fornyelse |
| AUTHOR(S) and AFFILIATIONS |
| Dorrit Sørensen og Henrik Hersom (Nationalt Center for Erhvervspædagogik, Københavns Professionshøjskole) |
| KEYWORDS (3-5) |
| Pedagogical culture in VET, development work, pedagogical experiments, action research, pragmatism, cooperation. |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research, development |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Vi ønsker at formidle analytiske pointer fra et forskningsprojekt, gennemført på fire på erhvervsskoler i Danmark i perioden 2016-2018. Formålet med forskningsinitiativet har været at undersøge muligheder og barrierer for, at pædagogisk udviklingsarbejde reelt ændrer skolernes praksis. Undersøgelsen bygger på et genkendeligt problem i Danmark, såvel som i Norden, om at pædagogisk udviklingsarbejde ikke sætter et tilstrækkeligt og varigt aftryk i skolernes praksis (Hjort, 2018).</p> <p>Projektets analyser viser nogle spændinger mellem drift og udvikling, mellem oplevet tid og konkret tid samt mellem styringsrationaler. I forskningsprojektet har vi undersøgt de læreprocesser, der er knyttet til det konkrete pædagogiske udviklingsarbejde på skolerne. Vi har været optaget af, hvordan kulturen omkring udviklingsarbejde kan indkredses, analyseres og forandres, og af hvordan der skabes fælles læring mellem ledere og lærere.</p> <p>Udgangspunktet for de medvirkende skolers arbejde har været ønsket om at skabe mere bæredygtig udviklingskultur. Til det formål har skolerne arbejdet med udvikling af deres lokale pædagogiske praksis gennem eksperimenter. Udviklingsarbejdet er sket i skolernes sociale kontekster, hvilket vi ser i et hhv. sociokulturelt (Dysthe, 2001; Lave & Wenger, 2003; Wenger, 2004) og pragmatisk perspektiv (Dewey, 2005; Brinkmann, 2007). Forskningsprojektet bygger på en forståelse af, at arbejdet med udvikling af pædagogisk praksis er forbundet med læring. Vi forstår læringen som de erfaringer og</p> |

handlinger, der kommer til udtryk i sociale fællesskaber og i mennesker-til- mennesker- relationer.

METHODS /METHODOLOGY (up to 100 words)

Aktionsforskning, hvor vi ser viden som et produkt af kollektive videnskabende processer i en løbende erkendelses- og praksis-cyklus som grundlag for kollektiv empowerment (Andersen & Bilfeldt, 2016). I vores forskningsdesign er der to af hinanden afhængige videnskabende processer: Første videnskabende proces er lokale udviklingsprocesser, hvor der arbejdes med pædagogiske eksperimenter med inspiration fra den eksperimenterende metode (Hutters & Sørensen, 2015) som middel til at skabe ny praksis. Her arbejder de enkelte skoler med at udvikle, afprøve og udforske deres pædagogiske indsats i deres lokale uddannelsespraksis. Den anden videnskabende proces, er den aktionsforskningsproces, vi som forskere tager aktivt del i. Denne 'tværgående' videnskabende proces bygger på at dele viden, erfaringer og læring omkring de udfordringer og dilemmaer som de fire deltagende skoler har mødt undervejs i deres arbejde med at udvikle deres pædagogiske praksis.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Analyserne i projektet indikerer, at der er forskellige barrierer for fornyelse af den eksisterende udviklingskultur. Barriererne viser sig som spændinger mellem drift og udvikling, mellem oplevet tid og konkret tid, mellem styringsrationaler. Analysen viser f.eks. at spændingen mellem de forskellige styringsrationaler er tæt knyttet til den diversitet, der er i den faglige professionalitet hos henholdsvis ledere og lærere. Lederne trækker i de rationaler, der knytter sig til strategi og mål, mens lærerne mere relaterer sig til de rationaler, der knytter sig til hverdagspraksis og erfaring.

Projektets forskning viser at pædagogiske eksperimenter på erhvervsskolerne er en vej til at skabe læringsbevægelser i skolernes udviklingskultur, men samtidig at 'spændingerne' er rammesættende for mulighederne for disse læringsbevægelser.

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Professional competence and Future (paperpresentations)

1. **Marianne Teräs, Eva Eliasson, Shu-Nu Chang Rundgren, Ylva Ståhle - *Vocational teachers' perceptions on 21st century skills (ENG)***

The importance to learn 21st century skills has been recognized internationally. Meanwhile, teacher's role of transmitting the skills to students to equip them facing future challenges in job and society is addressed. The objective of the study is to explore the vocational teacher students' perceptions on the 21st century skills and applications of these skills to their teaching practices. The study is part of an international research project led by Professor Hannele Niemi at the University of Helsinki, Finland. This proposal reports an ongoing study from Sweden.

The conceptual framework is based on Ravitz's (2014) work focusing on 21st century teaching and learning. In this study the 21st century skills involve eight areas: critical thinking, collaboration, communication, creativity and innovation, self-management/self-regulation, making global connections, making local connections and using technology as a tool for learning. Critical thinking refers, among other issues, to students being able to analyze

complex problems, collaboration states that students are able to work together and communication denotes sharing ideas and issues. Creativity and innovation describes how students can generate and refine solutions, for example, self-direction talks about students' ability to take responsibility of their learning. Global connections take into account students' ability to understand global and geo-political issues whereas local connection refers to their ability to work with the community. Using technology as tool for learning focuses on students' ability to use appropriate information and communication technologies. (Ravitz, 2014)

The research questions are the following: How do vocational teacher students perceive 21st century skills, and to what degree do vocational teacher students apply 21st century skills to their teaching? What are the challenges of applying the 21st century skills?

Methodology or Methods/ Research

The study presented here uses mix methods strategy. Study materials were collected by a quantitative survey to vocational teacher students and by qualitative interviews with vocational teacher students.

The questionnaire was based on work done by Ravitz (2014), Schmidt, Baran, Thompson, Mishra, Koehler and Shin (2009) and Sahin (2011), and developed further by Hannele Niemi's group, whose questionnaire was translated to Swedish. The survey used Likert-scale questionnaire, scored 1-5 (from very disagree to very agree). The questionnaire included two parts: learned from the program and application to teaching for each eight skills. Before sending it to VET teacher students 5 Swedish speaking persons answered the questionnaire and gave feedback about its clarity and language.

The semi-structured interview questions focused on deepening the vocational teacher students' perceptions of the 21st century skills and their application to teaching practice. Interview questions were, for example, asking What are the most important 21st century skills in teacher's work? What could be the barriers or obstacles in learning 21st century skills during VET teacher education?

Conclusions, Expected Outcomes or Findings 300 word

We have preliminary findings from the questionnaire but not yet from the interviews. 34 VET teacher students answered the questionnaire. Their professional backgrounds were as following: Child and recreation, Vehicle and transport, Business and administration, Handicraft, Hotel and tourism, Natural resource use, Restaurant and food and Health and social care.

The reliability (Cronbach's Alpha) of the questionnaire is 0,965, and the reliability of the 8 skills are 0,790-0,869: critical thinking (0,823), collaboration (0,790), communication (0,809), creativity & innovation (0,801), self-management/self-regulation (0,854), making global connections (0,865), making local connections (0,869) and using technology as a tool for learning (0,878).

Based on descriptive quantitative analysis, it was found that the participants were positive on 7 out of 8 skills (scored 3.45 to 3.88) on the skills learned from the programme and applied in teaching in general and only the skill of making global connections was scored lowest below 3 (2.86). When we tried to compare the scores from skills learned from the program and applied to teaching, there were 4 skills of communication, creativity & innovation, making local connections and using technology as a tool for learning found more positive in the application to teaching compared to learned from the programme. However, there was no significant difference ($p < 0.05$) found in all the comparison of means via Paired T-test.

In the global age, it is important to connect every educational program locally and internationally. However, in our study, we found the participants' responses on the skill of making globally connections less positive compared to other skills.

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Intent of Publication

Yes: International Journal of Research on Vocational Education and Training

2. Hedvig Skonhoft Johannesen, Oslo Metropolitan University - Vocational knowledge and knowing – Epistemologies by Norwegian vocational teachers (ENG)

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper presentation |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Vocational knowledge and knowing – Epistemologies by Norwegian vocational teachers |
| Author(s) and AFFILIATIONS |
| Hedvig Skonhoft Johannesen, Oslo Metropolitan University |
| KEYWORDS (3-5) |
| Vocational knowledge, epistemologies, vocational teachers, |
| TYPE of work (research, Development or work in progress) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>This paper explores views of vocational knowledge and knowing in the epistemologies of selected Norwegian vocational teachers, in the context of the Nordic Model and knowledge society. The times in vocational education and training are changing, as hybrid dimensions of vocational competences and boundary learning are challenging traditional vocational epistemologies of the “work of the hand” (Akkerman, 2011, Billett, 2009, Mulder, 2017). Scope of the inquiry is related to how these epistemologies are expressed through the professional practices of vocational teachers teaching school based learning at the upper secondary level (Hollis, 2002, Kvernbekk, 2005). The research question is as follows: <i>What are views of vocational knowledge and knowing in the epistemologies of selected Norwegian vocational teachers reflected through their professional practices?</i></p> <p>Notions of vocational knowledge and competence development will be explored through analysis of empirical data from qualitative interviews and participant observation.</p> |

The discussion in the paper concerns how the epistemologies of vocational knowledge and knowing with a primacy of practice is regarded in accordance with contextual factors. Uncertainties in future requirements for working life competences and vocational knowledge development are key to leverage in integrating boundary learning, hybridity and transversal competences in professional education (Filliettaz et al, 2015).

METHODS /METHODOLOGY (up to 100 words)

The empirical material consists of qualitative interviews and participant observation with 27 vocational teachers teaching school based learning at the Norwegian upper secondary level VET.

Expected outcomes/results (up to 100 words)

1. The epistemologies of the vocational teachers in the study comprise views on vocational learning where theory and practice are regarded as interrelated and non-dichotomous (Eraut, 2004).
2. However, primacy is granted knowledge from vocational practice and experiential learning, catering to the dual background of the vocational teachers starting as skilled workers or craftsmen, before vocational teacher education (Andersson & Köpsén, 2018).
3. The respondent's views on vocational bildung could be expanded and developed through changes to professional education better suited for meeting future requirements in the Norwegian sequential dual model of VET (Løvlie, 2011).

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3. Isacsson, A., Heinilä, H., Wikström-Grotell, C. (ENG) - *Skills match or mismatch in professional higher education (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English /Swedish |
| TITLE |
| SKILLS MATCH OR MISMATCH IN PROFESSIONAL HIGHER EDUCATION |
| AUTHOR(S) and AFFILIATIONS |
| Isacsson, A., Heinilä, H., Wikström-Grotell, C. |
| KEYWORDS (3-5) |
| generic skills, work-based pedagogy, skills mismatch |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research, work in progress |
| FRAMING (General description, research questions, theoretical framework) |
| Evidence shows that recent graduates in higher education (HE) often perceive that their competences and skills are not in line with demands of the world of work. Skill mismatch can occur in situations where there is a discrepancy between the competences at work and those achieved in HE. Generic skills, can be obtained through a number of ways, e.g. by increased community and industrial engagement, curriculum with applied content, project work, entrepreneurial efforts, internships, or simply said, by applying work-based pedagogy. Many studies have shown that generic skills are as important as hard skills when recruiting, while at school and at work. Still they are not recognized nor assessed systematically in HE. In this pilot project, generic skills are defined as: collaborative, analytical, problem solving, self -confidence, situational, cross-sectoral, substance related and career skills. The aim is to explore how generic competences are assessed and expressed both at HE, and work in order to find out if there is a mismatch between skills. We are sending out a pilot survey to supervisors with the specific aim to find out how generic skills of interns or recent Bachelor graduates in the fields of trade and tourism are aligned with the needs of work. |
| METHODS /METHODOLOGY |
| A narrative qualitative approach was applied. We analyze the data through narrative content analysis and are interested in how supervisors express themselves in relation to interns, recent graduates, competences, needs, situations and match or mismatches of skills. We use our definition of generic skills as framework in the analysis. |
| EXPECTED OUTCOMES/RESULTS |
| A match / mismatch table including descriptions of competences |
| REFERENCES |
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The theoretical background of the presentation is integrative pedagogy (Tynjälä & Virtanen 2013.) At the beginning of this presentation, we describe the theoretical frameworks and concepts underlying the projects, the measures taken, and the results achieved, as well as the recommendations for development. We consider

the developmental work-based learning in the continuous promotion of work-life and win-win activities in universities. In addition, we describe the process of co-writing, how we worked together. This proposal is a part of the Integrating Education and Work in Higher Education (TYÖPEDA) project funded by the Finnish Ministry of Education and Culture.

METHODS /METHODOLOGY (up to 100 words)

The material of our presentation is based on the eleven practices dealing with working life skills development in Finnish universities between 2015 and 2019. We have reflected them as cases, which describe the practices of integrative pedagogy. We focused on the following three elements: 1) the cooperation between the higher education and working life network, 2) the development of the students' working life skills, and 3) the development of the management skills of the higher education staff.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The results will be presented according the cooperation between the higher education and working life network, the development of the students' working life skills, and the development of the management skills of the higher education staff. We'll answer to the question of good practices in strengthening the working life pedagogical competence of higher education institutions and to the emerged development needs. Finally, we'll construct a narrative of co-writing in the context of Integrating Education and Work in Higher Education (TYÖPEDA) project.

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Kunnskap och lärande studieplan (paperpresentations)

1. Kari Henriette Hansen, Norsk Teknisk, Naturvitenskapelige Universitet. Grete Haaland and Inger Vagle, OsloMet Storbyuniversitetet - *Hva bestemmer fagutviklingen i yrkesfagene og innholdet i læreplanene for yrkesfaglige utdanningsprogram?(NOR)*

Norsk yrkesopplæring har siden 2006 vært organisert i åtte yrkesfaglige utdanningsprogram. Nå er en ny reform på gang og "Fagfornyningen" skal iverksettes høsten 2021. Ny struktur, med ti yrkesfaglige utdanningsprogram, er fastsatt uten at fagmiljøer, partene i arbeidslivet, elever eller yrkesfaglærere har blitt hørt på en systematisk måte. Nå har arbeidet med innhold i læreplanene for Vg1 startet. Denne artikkelen belyser nasjonale føringer for utvikling av innholdet i læreplanene og hvordan de nye læreplanene kan ivareta yrkesfagenes kompetansebehov og elevenes læringsbehov. Artikkelen belyser også læreplanenes potensiale som verktøy i undervisning og læring.

Prosjektet forankres i Deci & Ryans motivasjonsteori, som grunnlag for å belyse læreplanenes potensiale for å ivareta yrkesfagelevenenes læringsbehov. Maktperspektivet i læreplanutviklingen belyses gjennom forskning som omhandler konsekvenser av standardisering i utdanningsfeltet.

Dokumentene som beskriver utdanningsdirektoratets føringer for læreplanarbeidet og innholdet i høringsutkastene for Vg1-planene analyseres. Metodene innbefatter en spørreundersøkelse blant ca. tre tusen elever og fire hundre lærlinger, samt dybdeintervjuer med 60 yrkesfaglærere. Undersøkelsene gjennomføres i alle de yrkesfaglige utdanningsprogrammene i fire av landets nitten fylker.

Funnene viser så langt at utdanningsdirektoratet standardiserer språket i læreplanene, noe som kan fremmedgjøre læreplanene for yrkesfagene og dermed gjøre verdien av læreplanene som verktøy i opplæringen mindre. Funn fra elev- og lærlingeundersøkelsen viser at over seksti prosent av elevene har behov for å lære ett yrke, noe mange ikke opplever at de får anledning til i dagens yrkesopplæring. Læreplanene for Vg1 er ikke klare og dokumentanalysen av disse presenteres derfor først på Nordyrks konferanse i juni.

Hensikten med artikkelen er å skape en diskusjon om fagutvikling og læreplanene som verktøy i undervisning og læring. Vi ønsker å problematisere språkets betydning for yrkesfagenes eierforhold til planene, samt hvordan innholdet kan brukes for å sikre opplæring i tråd med både bransjenes og elevenes behov.

2. Jon Sverre Hårberg and Arve Leerand, NTNU - *En digital tilnærming til studenters erfaringer (NOR)*

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Paper

LANGUAGE FOR PRESENTATION Norsk

TITLE

Stories across borders

En digital tilnærming til studenters erfaringer

AUTHOR(S) and AFFILIATIONS Jon Sverre Hårberg og Arve Leerand, NTNU, Norway

KEYWORDS (3-5) Kulturforståelse, digitale historiefortellinger, internasjonalisering og studentmobilitet.

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS)

Gjennom det internasjonale samarbeide International Cooperation in Vocational Education and

Training (OPVET <https://www.ntnu.no/ilu/opvet>), har lærere ved universitetet i Bergamo (Italia),

Åbo Akademi (Finland) og NTNU (Norges teknisk-naturvitenskapelige universitet i Norge) i

samarbeid utviklet et prosjekt der erfaringer brukes for å dokumentere kunnskap og

ferdigheter, samt reflektere over opplevelser i skole og bedrift. I tillegg har videregående

skoler i Norge (Heimdal og Strinda vgs. i Trondheim), Italia (Istituto Belotti), Finland

(Yrkesakademin I Österbotten, Vaasa) og Tyskland (Institut für Bildung in der

Lebensmittelwirtschaft e.V, Bremen) deltatt i prosjektet. Prosjektet ble påbegynt høsten 2018

og har en varighet på 3 år. Prosjektet tar sikte på å etablere et internasjonalt nettverk mellom

skoler som tilbyr yrkesfaglige utdanningsprogram og

universiteter som utdanner fremtidens yrkesfaglærere. Formålet med samarbeidet er å

kunne gi lærerstudenter adgang til læringsarenaer som kan styrke deres kulturelle, språklige

og digitale kompetanse. Studenter som deltar i prosjektet skal videreformidle og dele sine

erfaringer og refleksjoner til sine medstudenter gjennom en digital historiefortelling.

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

Prosjektet er aktuelt fordi utveksling av studenter har potensial til å kunne styrke og

videreutvikle studenters forståelse, innsikt og kunnskap om ulike kulturer innen forskjellige

kontekster som videre kan bidra til demokratiske prosesser ved kunnskapsspredning

gjennom digitale fortellinger som formidler tanker, synspunkt, refleksjoner og ser nærmere på

hvordan utdanningssystemer konstrueres og skapes i andre land og hvilke ringvirkninger

skolens plass i samfunnet har for menneskets muligheter og utfordringer i et hurtig endrende

arbeid- og samfunnsliv. Tentativ problemstilling Hvordan kan digitale historiefortellinger

brukes som et verktøy for erfaringsdeling av opplevelser?

METHODS /METHODOLOGY (up to 100 words)

Kvalitativ casestudie. Empiri: Narrativ analyse av digitale fortellinger (5-6 stk.) og

refleksjonslogger (5-6 stk.) Dybde intervju med 5-6 studenter

EXPECTED OUTCOMES/RESULTS (up to 100 words)

• Gjøre studieopphold ved utenlandsk lærested og bedrifter tilgjengelig for

yrkesfaglærerstudenter

- Videreutvikle et attraktivt internasjonaliseringstilbud
- Øke andelen internasjonale utvekslingsstudenter
- Inngå i internasjonale forskernettverk
- Metoden skaper mer rom for refleksjon, både for personen som konstruerer fortellingen, og de som anskuer.
- Styrker utvikling av lærerprofesjonsfaglig kompetanse nasjonalt og internasjonalt
- Styrker studentens språklige ferdigheter
- Styrker studentens digitale ferdigheter
- Bidrar til læringsutbytte og fremmer motivasjon og lærelyst
- Styrker kunsten med å formidle
- Utvidet forståelse og innsikt for ulikheter
- Gir mulighet for å få tilgang til kontekster som vanligvis er utfordrende å få tilgang til
- Styrker kunnskap om andre kulturer, normer, holdninger og utdanningssystem

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3. Åse Nedrebø Bruvik and Grete Haaland, OsloMet - *Handlingsrommet I de nasjonale retningslinjene for yrkesopplæringen i Norge (NOR)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| Norsk |
| TITLE |
| Handlingsrommet I de nasjonale retningslinjene for yrkesopplæringen i Norge |
| AUTHOR(S) and AFFILIATIONS |
| Åse Nedrebø Bruvik – Stipendiat OsloMet. ase.bruvik@oslomet.no |
| Grete Haaland – Professor OsloMet |
| KEYWORDS (3-5) |
| Handlingsrom – yrkesrelevans – kompetanse – Studentinvolvering - medvirkning |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

Ambisjonene for Norge, som en kunnskapsnasjon er høye, og kompetanse er en forutsetning for å møte dagens og fremtidens utfordringer. Satsingen på kompetanse skal gi alle barn og ungdom mulighet til å utvikle seg og ta i bruk egne evner til å utvikle grunnlag for et godt liv (St.meld. nr. 28 (2015-2016), 2016). Kompetansebegrepet har fått ny definisjon og en sentral plass i nasjonale føringer for opplæringen. Det kan få konsekvenser for innhold og arbeidsmåter i yrkesopplæringen og dermed for rollen til framtidens yrkesfaglærere og instruktører i bedrift. Den overordnet delen av læreplanen har status som forskrift sammen med resten av læreplanverket og ligger til grunn for endringene som er på gang i norsk yrkesopplæring fra 2020. Studien har fokus på hvordan handlingsrommet kan brukes for å drive en yrkesrelevant opplæring i tråd med hvordan fremtidens kompetanse uttrykkes og beskrives i nasjonale føringer for fremtidig yrkesopplæring. Erfaringer fra den generelle læreplanen, som har status som forskrift frem til den nye iverksettes høsten 2020 bli løftet frem og sett i lys av nytt kompetansebegrep. Problemstilling: *Hvilke handlingsrom uttrykkes i de nasjonale retningslinjene i forhold til yrkesrelevant opplæring?*

METHODS /METHODOLOGY (up to 100 words)

For å svare på problemstillingen er datagrunnlaget basert på analyse av dokumenter som omhandler føringer og retningslinjer for hvilken kompetanse elever og lærlinger i norsk yrkesopplæring bør utvikle for å møte bransjens og samfunnets behov. Disse dokumentene er læreplanverket, med tilhørende stortingsmeldinger. Dokumentanalysen har fokus på hvordan framtidens kompetanse uttrykkes og hvilke handlingsrom nasjonale styringsdokumenter innehar, som grunnlag for å drive en yrkesrelevant opplæring for elever med ulike utdanningsmål i utdanningsprogram for Vg1 Design og håndverk. Intervjuer med lærere på Vg2 og instruktører på Vg3 i frisørfaget er gjennomført for å sikre validitet og et bransjeperspektiv på vår tolkning av de uttrykte føringene, i nasjonale styringsdokumenter. Som teoretisk referanseramme har vi tatt utgangspunkt i Goodlads læreplanteori (Goodlad, 1976).

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Studien skal bidra til å belyse kvalitet knyttet til arbeidsmåter og fleksibilitet i yrkesopplæringen og sammenhengen mellom nasjonale retningslinjer og opplæring i skole og bedrift. Hva uttrykker nasjonale føringer om yrkeskompetanse og hvordan kan handlingsrommet utnyttes for å drive en yrkesrelevant opplæring. Forventet resultatet vil være kunnskap om samsvaret mellom Nasjonale føringers uttrykte kompetansebehov, frisørbransjens uttrykte kompetansebehovet, og hvordan handlingsrommet i de nasjonale føringene kan bidra til å drive en yrkesrelevant opplæring. Resultatene kan bidra inn i den pågående utarbeidelsen av fagfornyelsen som iverksettes i 2020 og til videreutvikling av yrkesfaglærerutdanningene i Norge.

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Assessment and validation (workshop)

1. **Anette Lund Follestad and Hæge Nore, Professor, Oslo Metropolitan University. Per Andersson, Linköpings Universitet. Vibe Aarkrog, Aarhus Universitet - *Who should be the validator of life-long competences from working life (RPL) - and which skills and competences should they have? (ENG)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Workshop (must be placed on June 13 th due to examinations in Norway and Denmark) |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| <i>Who should be the validator of life-long competences from working life (RPL) - and which skills and competences should they have?</i> |
| AUTHOR(S) and AFFILIATIONS |
| Anette Lund Follestad, Assistant Professor, Oslo Metropolitan University Hæge Nore, Professor, Oslo Metropolitan University Per Andersson, Professor, Linköpings Universitet Vibe Aarkrog, Associate Professor, Aarhus Universitet |
| KEYWORDS (3-5) |
| Recognition of prior learning, Work-based learning, Life-long learning, Validator |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research and work in progress |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

National and international recognition of prior learning (RPL) is still an issue in the Nordic countries and EU at all levels. Attention are drawn both on making learning visible (Bjørnåvold, 2000), on institutional access requirements and on how to make valid assessment (Wahlgren & Aarkrog, 2015, Aarkrog & Wahlgren, 2017). Less attention has been paid to the validator, i.e. the person discovering a total entirety of a persons' knowledge and competences. Validators of working life competence influence the process of validation and the outcome (Andersson and Fejes 2010). Validators could also represent different areas of interest. RPL counselling is dependent on many factors related to the culture and structure of the institution (Halttunen & Koivisto, 2014). In Sweden, most recipients of validation have another ethnic background (Andersson & Fejes, 2010). How could the validator develop competences related to cultural issues as well? How could validators achieve the quoted ten thousand hours for true expertise? (Gladwell 2009, in van Berkel, 2014)

According to the national guidelines for RPL in Norwegian VET, the validator should have knowledge about issues like RPL administration, laws and regulations to working life contexts and adult learning. What is the difference between having occupational knowledge and having competence in validation? Who is the right person to validate prior learning outside the education system? Andersson og Fejes (2014) emphasize the aspect of the validators` power.

Recognition of prior learning requires competent validators. What does that mean? Do VET teachers have such skills and competences? If not, what distinguish a validator from a teacher?

METHODS /METHODOLOGY (up to 100 words)

So far, we have done literature review on the topic and gathered information from the Nordic countries on laws and regulations regarding validators' roles and competence profiles. Through the workshop, we will outline the similarities and differences between the Nordic Countries – as a base for further research.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The expected outcome is to clarify issues for further research on the development of validators' skills and competences in the Nordic Countries. Our aim is to establish a Nordic research collaboration on the topic and apply for economic support at Nordic Council of Ministers.

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Session 3 (Thursday June 13th 13.00 – 14.45)

The student in Vocational education (paper presentations)

1. Tobias Karlsson, Linköping University - *Becoming your Vocation* (ENG)

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Becoming your Vocation |
| AUTHOR(S) and AFFILIATIONS |
| Tobias Karlsson, Linköping University |
| KEYWORDS (3-5) |
| Vocational Identity, Municipal Adult Education |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research, work in progress |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

I study students in VET-programs in the Swedish municipal adult education-program (MAE) and their experience of what it takes and what it means to become a part of a vocational community through their educational process.

I will give a presentation about my researchplan and some preliminary results; about how students in a MAE geared towards health and social care experience their first time as students, their way to the MAE, how they view assistant nurses as a vocation.

The overall aim of my thesis is to understand how students vocational identities is formed and enacted during their education and their transition to working life and what meaning the vocational identity has for the students during and after this process. The plan is to follow students from two different MAE, firstly a program that educates assistant nurses and secondly a program that educates towards a vocation with a post-school-education apprenticeship

My theoretical framework is based on Lave and Wengers (1991) and Wenger (1998). To better understand the social aspects of vocational identity formation and vocational learning in a school-context I will also use concepts borrowed from Goffman (2004) alongside concepts from Bourdieu which has been expanded upon by Broady (1989, 1998).

METHODS /METHODOLOGY (up to 100 words)

The data is based on semi-structured interviews with the students from when they start, in the middle of and at the end of their education but also one year after their education has ended. A contextual understanding is generated through interviews with the teachers and Classroom observations observation.

The health and social care-program is chosen because it is the most widespread VET in Sweden within the MAE and also because the female dominated vocation (assistant nurses). The “journeyman-program” because

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| <p>of the post-education apprenticeship as a requirement for a professional certificate and also because the tendency for more male dominated vocations.</p> |
| <p>EXPECTED OUTCOMES/RESULTS (up to 100 words)</p> |
| <p>In the presentation I will present the first preliminary findings from the interviews with teachers and my first interview with students at a assistant nurse program.</p> <p>The teachers emphasise the importance of personal aspects and language vocational requirements, alongside educational content, in the process of becoming an assistant nurse. The students, being a diverse group both in regards of age and background, differ in their use of a vocational language but notable similarities in how they view vocational and social expectations.</p> |
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2. Grethe Nina Hestholm and Solvejg Jobst, Høgskulen på Vestlandet/ Western Norway University of Applied Sciences - *Educable or not? The teacher's alternatives when connecting curriculum to pupil. (ENG)*

This is an abstract for a paper that has been submitted to *Teaching and Teacher Education*, late November, 2018

Abstract: When working to connect homogeneous curricula with heterogeneous groups of pupils, teachers have to sort pupils according to the categories allowed for in the national school system. In this article, we compare German organizational differentiation, where pupils are divided into stable groups, to Norwegian pedagogical differentiation, where instruction is adapted to the pupils within the common classroom. This study is qualitative and explorative; the method employed is a modification of philosophical phenomenology, and the theoretical discussion is pedagogical-philosophical and educational-sociological. When teachers from these two systems reflect upon the equality of opportunity of their system, categories of educable versus uneducable pupils materialize. The individual teacher's academic background, combined with a heavily theoretical curriculum, creates a culturally delimited learning environment. This can be critical for pupils with non-academic dispositions or cultural perspectives. The question is whether the systems that employ ostensibly democratic differentiation principles legitimize an educational dictatorship, perpetuating an undemocratic understanding of knowledge and learning.

Highlights:

- Teachers sort pupils according to the categories in the national school system.
- Teachers tend to create categories of educable versus uneducable pupils.
- A heavily theoretical curriculum makes a culturally delimited learning environment.
- A democratic representation of knowledge makes fewer pupils uneducable.
- The systems legitimize an undemocratic understanding of knowledge and learning.

3. Viveca Lindberg, Stockholms universitet - *Hesitation in vocational learning situations – opportunities for learning (ENG)*

The purpose of this paper is to analyse empirical situations from a previous project on vocational learning in Swedish upper secondary vocational education, in order to identify 'critical aspects' of vocational knowing. The vocational areas for the programs were textile respective wood work.

The research design was ethnographically inspired: in each school, initial data were a series of collective remembering sessions with all teachers in each of the two participating schools and programs, followed by a sequence of video-recorded teaching/learning in schools,

focusing on a few students in each program while they were working with their assignments. Complementary to the video-recordings, teachers were audio-recorded for the purpose of documentation of their conversations with these students during their work. On several occasions, students showed hesitation in their work, but also the pattern observed for these students was similar. All examples analysed for this paper concern students' hesitation while working with different assignments in school workshops or classrooms.

The theoretical framework for the project is activity theory. The assignments, the communication between the students and their teacher, the tools they use and the material they were working with were analysed, focusing the 'critical aspects' – aspects that seems difficult for students to discern and therefor a didactic challenge since a common aspect of the result they seem crucial with regards to vocational knowing.

Didaktik I yrkesutbildning (paperpresentations)

1. Sissel Utgaard, NTNU Institutt for lærerutdanning - *Vurdering som læringsledelse i fag og yrkesopplæring. (NOR)*

Tittelen i abstraktet tar utgangspunkt i en teoretisk forståelse av hvordan tolkning av formativ vurdering kan fungere som klasseledelse og læring i fag- og yrkesopplæringen i Norge. Det vektlegges spesielt hvilken rolle yrkesfaglæreren har i arbeidet med å utvikle god vurderingspraksis og hvilken betydning lærerens bevisstgjøring av hva ledelse og elevmedvirkning kan innebære for elevens læringsprosess i utdanningen av fremtidens fagarbeidere. En praksisfortelling fra en yrkesfaglærer danner rammen for studien. I lys av yrkesfaglærerens vurderingspraksis rettes fokus mot sentrale utfordringer som yrkesfaglæreren møter i sin undervisningspraksis i en bygg og anleggsgfagklasse. De sentrale utfordringene som yrkesfaglæreren møter settes inn i en teoretisk kontekst som knyttes til hva som kan være gjeldende som validitet i vurdering.

Problemstillinga jeg søker svar på er følgende: Hva innebærer gode vurderingspraksiser i fag og yrkesopplæringen i klasserom/verksted, i skole, bedrift og på systemnivå?

Bakgrunn for studien

Etter Kunnskapsløftet viser flere studier at kvaliteten i dagens fag- og yrkesopplæring har et stort forbedringspotensialet for å møte fremtidens arbeidsliv og for å dekke et fremtidig behov for yrkesfagligkompetanse (Hansen og Haaland, 2015; Hiim, 2015). Den nye læreplanen med svært brede utdanningsprogram og vide kompetansemål er særdeles krevende å håndtere for yrkesfaglæreren når elevenes tilegnelse av kompetanse skal vurderes (LK; 2006). De fire prinsippene for formativ vurdering i forskrift 3- 11 til Opplæringslova stiller tydelige krav til skoleeier, lærere og arbeidsliv med hensyn til elevens rett til vurdering:

- 1) Elevene og lærlingene skal forstå hva de skal lære og hva som forventes av dem.
- 2) Elevene skal få tilbakemeldinger som forteller om kvaliteten på arbeidet.
- 3) Elevene skal få råd og tilbakemeldinger om hvordan de kan forbedre seg.

4) Elevene og lærlingene skal involveres i eget læringsarbeid med blant annet å vurdere eget arbeid og utvikling.

Disse prinsippene kan sees i sammenheng med skolens vurderingskultur, lærerens faglige og didaktiske kompetanse. Det finnes i dag lite forskning som direkte dokumenterer hvordan denne vurderingsforskriften praktiseres og sikrer at elever og lærlinger opplever en vurderingspraksis som er i tråd med disse prinsippene i fag og yrkesopplæringen.

Fra egne erfaringer ved observasjon av lærere har jeg sett at både fellesfaglærere og yrkesfaglærere i stor grad skriver mål for opplæringa på tavla men glemmer å nevne målet resten av timen. Mål som blir presentert på denne måten gir eleven lite holdepunkt for sammenhengen mellom målet, læringsprosessen og vurderingen (William ,2011).

Utfordringen med den nye læreplanen i de brede yrkesfaglige utdanningsprogrammene krever at lærere har et større fokus på læreplananalyse og hvordan lærere utøver styring og ledelse av vurdering enn det som har vært praksis i norsk skole (Fjørtoft & Sandvik, 2016). For å ta styring og ledelse som vurderer må læreren reflektere over hvilken selv forståelse som ligger til grunn for vurderingen og hvilke metoder og praksiser som i varetar gyldighet og pålitelighet i vurdering. Læreren må i tillegg ta stilling til når det skal benyttes summativ og formativ vurdering for å kunne presentere tydelige læringsmål og kriterier (Fjørtoft & Sandvik, 2016). Å utvikle tolkningsfelleskap mellom lærere om tolkning av læreplanens kompetansemål og hvilke tanker og begreper som brukes om vurdering øker muligheten for å sikre gyldighet og pålitelighet i vurdering. Både internasjonal og nasjonal forskning på vurdering viser at kollektivt samarbeid mellom lærere sammen med høy grad av elevmedvirkning og bruk av egenvurdering har stor betydning for elevens samlede læringsutbytte. I tillegg viser studier at aktiv bruk av bruk av feedback for å fremme læring er en ferdighet som lærere kan undervise i, fordi denne ferdigheten er ikke en naturlig del av alle elevers kompetanse (Brook Hart 2008: 8); Fjørtoft & Sandvik, 2016)

Man kan med utgangspunkt i dette stille spørsmål om hvordan de fire prinsippene for god formativ vurderingspraksis er forstått og implementert inn i yrkesfaglærerens praksis? (Hansen, og Haaland, 2015; Sandvik og Fjørtoft, 2015) Det finnes lite norsk og internasjonal forskning å støtte seg på når det gjelder formativ vurdering som er direkte rettet mot vurdering i fag og yrkesopplæringen. Det er derfor behov for mere eksplisitt kunnskap om hva som kjennetegner den formative vurderingspraksisen innen fellesfag og programfag i yrkesopplæringen. En bedre oversikt over yrkesfagenes vurderingspraksis vil på sikt kunne få betydning for grunnopplæringen av yrkesfaglærere og for videreutdanningstilbud for yrkesfaglærere og bedrifter som jobber med elever og lærlinger.

Med denne studien søker jeg blant annet å finne svar på hvilke roller yrkesfaglærere og elever skal innta for å sikre gode vurderingspraksiser der relevant og praksisnær kompetanse sees i et fremtidsperspektiv? Min antakelse er at lærerens ledelse av læringsprosesser og mulighet til å ta en aktiv rolle elevens i formative vurdering kan ha betydning for elevens læringsutbytte. Og at det kan bidra til økt motivasjon, mestring og mening i eleven / lærlingens kompetanseutvikling og dannelsingsprosess i møte med arbeidslivet. Det er mye som tyder på at lærere som evner å føre læringsfremmende dialoger og bruker elever som

en aktiv ressurs i vurdering opplever at elevene blir mere selvregulert i egen læringsprosess. Elever/ lærlingen vil med et slikt utgangspunkt bruke sine evner mere bevisst til å ta ansvar for egen læring og bruke dette aktivt til å forbedre seg. Elever med denne kompetanse er viktig med tanke på fremtidens samfunns- og arbeidsliv (Hiim, 2016; Hansen & Haaland, 2015; Timberley, 2007).

Teoretisk ramme for studien

Studien bygger et sosiokulturelt syn på kunnskap og læring. Et sosiokulturelt syn på læring og kunnskap vektlegger språk, sosiale praksiser og bruk av ulike verktøy/ artefakter som hjelpemidler for å utvikle kunnskap, mening og læring. Der læreren tilstreber å tilpasse læringen til elevens nærmeste utviklingssoner. Det aktuelle utviklingsnivået til eleven er det nivået eleven kan løse oppgaver på egenhånd, ut fra det eleven kan her og nå, men innenfor denne sonen lærer ikke elevene noe nytt. Eleven har imidlertid et utviklingspotensial ut over dette nivået, som er den nærmeste utviklingssonen. Denne sonen er området mellom det eleven kan mestre på egenhånd, og det han/hun kan klare med hjelp og støtte fra andre. Lærers oppgave i formativ vurdering blir med utgangspunkt i denne teorien å veilede og støtte eleven ved å prøve å overvåke hva elevene forstår og ikke forstår og gi støtte til eleven i å søke svar på utfordringer og spørsmål slik at eleven hele veien selv er aktivt med og jobber målbevisst med å finne løsninger og svar på utfordringer i faget. En viktig del av denne prosessen er å lære å vurdere kvalitet på arbeidet. Dersom lærer og med elever gir konkret og tydelig respons på arbeidet vil eleven lære hva han må gjøre i neste steg for å utvikle sin kompetanse for at arbeidet skal bli godt. Dysthe (2005). I en formativ vurderingspraksis vil både yrkesfaglæreren og fellesfaglæreren bruke språket aktivt i dialog med elevene når de forklarer mål, læringsprosess og vurdering av arbeidet. Språket fungerer dermed også som støttende stil rundt elevens nærmeste utviklingssoner og skal være en hjelp til elevens læring. Bruk av språk og kulturelle hjelpemidler fremstår på denne måten som en viktig bidragsyter for tilpasset opplæring og kan være et viktig verktøy når læreren skal overvåke elevens læring og gi eleven veiledning og konstruktive tilbakemeldinger. Bruk av språk og sentrale begreper kan gjennom dette bidra til å øke elevens læringsutbytte, opplevelse av mestring og mening med faget. Videre vil både språk, bruk av ulike arbeidsmåter i form av ulike verktøy som kulturelle hjelpemidler være viktig for å sikre at læreren har forstått det han/ hun skal lære og opplever det som meningsfylt og relevant med tanke på videre yrkesvalg (Hansen og Haaland, 2015; Sandvik og Fjørtoft, 2015).. I det eksplisitte teorigrunnlaget om formativ vurdering benytter jeg både nasjonal og internasjonal forskning rundt avklaring av sentrale begreper som er brukt i vurderingsforskning som beskriver kjennetegn på god vurderingspraksis. Da mange av begrepene fra nasjonal og internasjonal forskning også kan være gyldige i en fag og yrkesopplæringskontekst. Videre er det aktuelt å se på formativ vurdering i lys av de fire nasjonale prinsippene for god vurderingspraksis som gjelder for norsk skole. Ettersom det finnes svært lite forskning som er direkte knyttet til tema fra studier av yrkesfaglærere må jeg hele veien gjøre vurderinger av teori som kan være overførbare til en yrkesfagskontekst.

Metode og design

Datamaterialet fra denne studien tar utgangspunkt i observasjoner og intervjuer som er gjort med yrkesfaglærere og fellesfaglærere som jobber med yrkesfag ved videregående skoler i midt Norge. Lærerne som det er forsket på har deltatt i skolebasert kompetanse utvikling i vurdering for læring (SKUV). Det er totalt 20 videregående skoler som deltar i SKUV. Vi er 9 forskere og 1 stipendiat som jobber sammen i tverrfaglige team der to og to forskere sammen har fått et hovedansvar og fungerer som kontaktpersoner og fagansvarlige for å drive utviklingsarbeidet på de skolene er tildelt. Fra de videregående skolene som er brukt i denne studien, er det gjennomført fokusgruppe intervjuer av 27 yrkesfaglærere fordelt på tre videregående skoler. For å få tilgang til forskningsfeltet er det viktig å ha en god relasjon til skolens ledelse og lærerne som deltar i studien. Som forskere på feltet er vi avhengig av å sikre et samarbeid basert på diskresjon, sensitivitet og bruk av sunn fornuft i en slik kontekst (Creswell, 2007; Postholm 2005). Forskerteamet i SKUV brukte derfor god tid på å utarbeide gode måter å etablere kontakt med skolen på ved starten av prosjektet. En del av rutinene var å gjennomføre en kvantitativ ståstedsanalyse av alle skolene i starten av prosjektet, videre ble det gjennomført intervju med hvert fagteam. I disse samtalene fikk vi kartlagt hvilke vurderingspraksiser lærerne hadde erfaring med og hvilke ønsker og tanker de hadde om egen utvikling og samarbeidet med forskere fra UH sektoren. Gjennom observasjon, veiledning, personlige møter og intervju dannet vi oss et bilde med eksempler på dagens vurderingspraksis og hvilke utfordringer lærerne opplever å møte når de skal vurdere elever. På de aktuelle møtene med skolen ble det jobbet med skolene på ulike måter. Forskjellen i tilnærming handlet om hvor aktiv skolens øverste leder har vært som deltaker i lærernes vurderingspraksis og hvordan skolene har valgt å organiserte lærerteamene. I tillegg til hvilke prioriteringer som skolen har valgt for å gi lærerne tilstrekkelig tid til å faglig fordypning om vurdering og utprøving av ulike metoder og verktøy i egen undervisningspraksis. Møtene vi gjennomførte med skolens ledelse skjedde som egne møter utenfor fagtemaene. Både fokusgruppeintervjuene og veiledningen med lærerne skjedde gjennom personlige møter. Vi bidro også med noe faglig påfyll tilpasset skolens egne ønsker med nyere forskning om vurdering og praktiske råd og eksempler på metoder og verktøy som lærerne kunne teste ut. I tillegg var ledelsene skolene samlet til felles evalueringskonferanse med de andre skolene i samme puljen der skolens ledelse redegjorde for SKUV - arbeidet overfor skoleeier og diskutere erfaring. En viktig avslutning for hver enkelt skole var å fremlegge antakelser av dagens praksis med problemstilling og innhenting av data og resultat av sine aksjonsforskningsprosjekt på skolens FoU konferanse der vi som forskere deltok og fikk et godt overblikk over problemstillinger og erfaringer som lærerne jobbet med ved utprøving av nye vurderingsmetoder. Jeg deltok også i veiledning av de skriftlige rapportene som lærerne skrev som dokumentasjon på FOU arbeidet de hadde gjennomført og fikk gjennom dette innsyn i lærernes tanker og refleksjoner vedr egen praksis. Etter at lærerne hadde gjennomført arbeidskravene knyttet til sitt FOU arbeid ble det gjennomført nye fokusgruppeintervju med lærerne for å følge opp lærernes opplevelse og erfaring av FOU-arbeidet og skolens kollektive vurderingspraksis. På den måten ble vi tilgang til et omfattende datamateriale om både felles faglæreren og yrkesfaglærerens vurderingspraksis og veldig

godt kjent med ansatte og fikk et godt innblikk både i skolens vurderingskultur (Fjørtoft & Sandvik, 2015).

Data materialet fra fokusgruppeintervjuene ble transkribert og analysert gjennom en induktiv tilnærming (Postholm, 2005; Nilsen, 2013) Formålet med den induktive tilnærmingen er å kondensere rådata inn i et kortfattet format for å etablere klare sammenhenger mellom forskningsspørsmålene og forskningsmaterialet. Med utgangspunkt i kondenseringen ble det laget et sammendrag som kunne utlede et felles rammeverk av den underliggende strukturen i datamaterialet. Hensikten med rammeverket var å få frem de underliggende strukturene av erfaringer og de prosessene som kunne gi svar på forskningsspørsmålene. Induktive analysestrategier brukes ofte i kvalitativ forskning for å få frem detaljerte undersøkelser av datamaterialet der hensikten er å utlede begreper og tema som kan beskrive eksplisitte deler i en prosess (Strauss & Corbin, 2013; Postholm, 2005; Postholm, 2010).

En praksis fortelling

Analyse og presentasjon av funn

Resultat og drøfting

Avsluttende oppsummering

Kilder

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2. Karine Gjersøe & Sidsel Sandtrøen - *Ny didaktikk for fag- og yrkesopplæring i "Future Classroom Laboratory"* (NOR)

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| Norsk |
| TITLE |
| Ny didaktikk for fag- og yrkesopplæring i "Future Classroom Laboratory" (FCL) |
| AUTHOR(S) and AFFILIATIONS |
| Karine Gjersøe og Sidsel Sandtrøen |
| KEYWORDS (3-5) |
| Ny didaktikk, FCL, ny teknologi, fag- og yrkesopplæring, yrkesfaglærerutdanning |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Arbeid under utvikling |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Beskrivelse</p> <p>Arbeidslivets forventninger til digital kompetanse åpner nye didaktiske muligheter. FCL søker å skape inspirerende læringsmiljøer som åpner for nytenkning av forholdet mellom teknologi og didaktikk. Vi ønsker å undersøke elever, lærere og lærerstudenters læring i FCL og hvilke didaktiske konsekvenser dette kan få relatert til fag- og yrkesopplæring og yrkesfaglærerutdanning.</p> <p>Forskningsspørsmål</p> <p>Hvordan kan elevenes læring beskrives når de deltar i FCL?</p> <p>Hvordan kan lærerstudenter og læreres læring beskrives når de deltar i FCL?</p> <p>Hvilke didaktiske konsekvenser har læring i FCL?</p> <p>Hvilken betydning kan en FCL-basert didaktikk få for fag- og yrkesopplæring og yrkesfaglærerutdanning?</p> |

Teoretisk rammeverk

Richard Sennett har belyst rommets betydning for menneskets liv og samhandling. Særlig aktuelt er hans drøfting av lukkede vs åpne rom og den betydning det har for menneskelig virksomhet og læring/utvikling. Vi bygger for øvrig på en sosiokulturell læringsteori basert på Vygotskys tenkning og en didaktikk tuftet på dette læringssynet.

METHODS /METHODOLOGY (up to 100 words)

Vi belyser forskningsspørsmålene ut fra en fenomenologisk hermeneutisk forskningstilnærming. Datainnsamlingen planlegges utført denne våren ved FCL ved University College of Copenhagen (UCC) og omfatter i tillegg til litteraturstudier jobbskygging, observasjoner av læringsaktiviteter og kvalitative intervjuer av elever, lærere og lærerstudenter.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Vi forventer resultater som belyser forskningsspørsmålene ovenfor, og en drøfting av en fornyet didaktikk for fremtidens fag- og yrkesopplæring og faglærerutdanning. Vi tar i første omgang sikte på å publisere en artikkel i *The Nordic Journal of Vocational Education and Training*.

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3. Louise Aspegren and Lena Jönsson, Kungsholmens Västra gymnasium (ENG)

- Inside-out: The importance of knowing how to switch between perspectives in order to understand the inflammatory process within a Swedish Upper secondary Health and Social Care Program.

Yrkerskunnande och framtid (paperpresentations)

1. Egil Eide, Valborg Kløve-Graue and Njål Vidar Traavik, Høgskulen på Vestlandet - Erfarne yrkesfaglærere møter Industri 4.0. og 21st Century Skills (NOR)

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| E-mail: egil.eide@hvl.no ; valborg.klove-graue@hvl.no ; njål.vidar.traavik@hvl.no | |
| Abstraktittel: « Erfarne yrkesfaglærere møter Industri 4.0. og 21st Century Skills» En longitudinell studie av yrkesfaglærere innen Bygg- og anleggsteknikk (BA), Elektrofag (EL) og Teknisk og industriell produksjon (TIP) som deltar i et videreutdanningsprosjekt 2018 – 2019. | |
| Bakgrunn og motivasjon: Utgangspunktet for vårt longitudinelle studie er å følge yrkesfaglærere innen Bygg- og anleggsteknikk (BA), Elektrofag (EL) og Teknisk og industriell produksjon (TIP) som gjennomførte en samlingsbasert videreutdanning med utgangspunkt i tenkningsgrunnlaget i «Discovery learning». Møter med bransjer, næringsliv og teknologi-innovative miljø utgjorde en stor del | |

av innholdet i utdanningen. Kurset ble gjennomført høsten 2018 og våren 2019, og ga 15 studiepoeng.

Problemformulering:

Vårt forskningsdesign er en longitudinell studie der vi måler individuelle variaser i yrkesfaglærernes opplevelser, erfaringer og refleksjoner etter møte med uttrykte kompetansekrav for fremtiden fra bransjer, nærings- og samfunnsliv, og om yrkesdidaktisk praksis endres som følge av dette.

Metode:

Hovedvekten i vår forskningsmetodiske tilnærming er lagt på et prospektivt longitudinelt studie, med kvalitative intervjuer og analyser av yrkesfaglærernes refleksjoner gjennom arbeidskrav og digitale fortellinger. Som analyseinstrument grupperes yrkesfaglærernes refleksjoner i de fire KSAVE-kategoriene: Knowledge, Skills, Attitudes, Values and Ethics.

Planlagt longitudinelt studie går over fjorten måneder, der vi følger yrkesfaglærerne i ulike faser i videreutdanningen, samt gjør intervjuer med alle studentene ett år etter gjennomført utdanning.

Konklusjoner, forventet utbytte og resultater:

Datagrunnlag og analyser som presenteres er hentet fra studentenes refleksjoner over kompetanser for fremtiden i bransje, nærings- og samfunnsliv som vil ha betydning for nytenking innen tilrettelegging av læringsmiljø og -metoder i videregående skoles yrkesfaglige studieretninger.

Foreløpige funn viser at studentene finner KSAVE-modellen nyttig i planlegging av egen undervisning, og at det er viktig med tett kontakt med næringsliv og økt satsing på yrkesfaglig fordypning med tidlig bedriftsutplassering for elevene. Mange av yrkesfaglærerne uttrykte overraskelse over at bedriftene i så stor grad poengterte *grunnkunnskap, god fysikk og sosiale evner* som avgjørende ved utvelgelse og tilsettelse av lærlinger.

Nøkkelord:

21st Century Skills, Discovery Learning, Yrkesfag, Yrkesdidaktikk

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| Presentasjon: Paper /work in progress |
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2. Niklas Rosenblad, Birgit Schaffar-Kronqvist and Erika Löfström, University of Helsinki - *Forskningsbaserad handledningsutveckling inom följderna av den finländska yrkesutbildningsreformen (2018) (SWE)*

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Paper

LANGUAGE FOR PRESENTATION Swedish

TITLE Forskningsbaserad handledningsutveckling inom följderna av den finländska yrkesutbildningsreformen (2018)

AUTHOR(S) and AFFILIATIONS Niklas Rosenblad, M.Eng. Doctoral student, University of Helsinki, niklas.rosenblad@helsinki.fi; Birgit Schaffar-Kronqvist, PhD. University Lecturer, University of Helsinki, birgit.schaffar@helsinki.fi; Erika Löfström, Professor, University of Helsinki, erika.lofstrom@helsinki.fi

KEYWORDS (3-5) Counselling systems, VET-reform, individualization, DBR

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Research work in progress (within doctoral studies)

FRAMING (General description, research questions, theoretical framework) (up to 200 words) Pådriven av OECD (2018) förändras yrkesutbildningen mot individualiserat, arbetsautentiskt och kompetensbaserat lärande (L531/2017; AMKE, 2018), vilket förändrar handledningsbehoven (Niemi & Jahnukainen, 2018; Vuorinen & Virolainen, 2017). Den här studien ser på en individualiserad handlednings systemrelaterade förändringar i utvecklande syfte. Med handledning avses pedagogiskt och administrativt agerande för lärande och utveckling (Rosenblad, 2018; Lauvås & Handal, 2015). Syftet med forskningen är att genom fältsamarbete förklara, gestalta ämnesövergripande handledning och att förankra utvecklad forskningsbaserad kunskap tillbaka i handledningspraktiken för personlig tillämpning av lärande (L531/2017; F673/2017). Forskningsfrågorna söker (1) modeller för handledningens agerande inom system för utformande och uppdaterande av personliga utvecklingsplaner, (2) handledningens gestalt som bindsegment mellan individ, lärande, lärandekontext och sociala praktiker, (3) utveckla handledningens idé och praktik för att stöda studerandes autonomi och karriärplanering (Hooley o.a., 2014)

inom ramar av läroplaner, examensgrunder och lagstiftning. Yrkeslärandet äger rum (Rintala o.a., 2015; Jørgensen, 2008, 2015; Virtanen o.a., 2014; Billett, 2009) i en lärandekontextuell diversitet som anpassas individuellt (Rosenblad, 2018) till realism och önskemål (Watts, 2009). För att överbrygga kunskapsdikotomi (Nylund, o.a., 2018) analyseras yrkeslärandet i ettsociokulturellt (Säljö, 2014) och socialkonstruktivistiskt (Vaage, 2003; Ojanen, 2012) perspektiv genom "verksamhetsteori" som minsta analysenhet utgående från Berglund (2009); Engeström (2001). Abstract - NORDYRK 2019

METHODS /METHODOLOGY (up to 100 words) I den designbaserade forskningen (DBR) är etnografiska deltagarobservationer av grupphandledningstillfällen och iterativa temaintervjuer med handledare och lärare planerad. I den här presentationen gestaltas teoribas och planerade metoder, med vilka förändrade handledningsmodeller kunde greppas och analyseras. Forskningsmaterial planeras bestå av transkriberat textmaterial och anteckningar, som bearbetas genom teoretisk-eklektiska metoder innehållande hermeneutisk tolkning och induktiv meningsanalys (Kvale & Brinkmann, 2014). Val av forskningsmetod stöds av forskningens frågeställningar utgående från system av sociala konstruktioner och erfarenheter av samarbete situerat i kulturella, intellektuella och fysiska kontext. Kunskap om förändrade processer återförs genom ett cykliskt utvecklande fältsamarbete i handledningspraktiken, med avsikt att forskningsbaserat utveckla handledningsverksamheten.

EXPECTED OUTCOMES/RESULTS (up to 100 words) Forskningsplanens presentation görs med avsikten att söka vidgade teoretiska infallsvinklar genom vilka handledningens förändringar kan gestaltas. Forskningen åskådliggör, förklarar och beskriver vidareutvecklingsområden inom ämnesövergripande och holistiska handledningsprocesser för personlig tillämpning (L531/2017) och karriärplanering som just nu utvecklas och implementeras. Forskningen bidrar till att utforma nya modeller integrerade i praktiskt tillämpade handledningssystem, och till att gestalta hur handledningen tar form i sociala konstruktioner som bildar möjliggörande eller begränsande moment inom systemen. Genom fältsamarbetet ökas en gemensam förståelse för vetenskapens och praktikens samband. Forskningen kan ytterom den kontextsensitiva verksamhetspragmatiska kontributionen ses tjäna ett även ett vetenskapligt kollektiv i vidare perspektiv.

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3. Hilde Witsø, University of Agder - *How develops, establishes and communicates experienced professionals their professional knowledge (NOR)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| paper |
| LANGUAGE FOR PRESENTATION |
| norwegian |
| TITLE |
| How develops, establishes and communicates experienced professionals their professional knowledge |
| |
| Associate Professor Hilde Witsø, University of Agder, Faculty of Humanities and Education, Department of Education |
| KEYWORDS (3-5) |
| Professional knowledge, tacit knowledge, Learning through action and experience |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>The purpose of this paper is to shed light on experience-based and tacit knowledge, and how these forms of knowledge can be the basis for practitioners' development of professional knowledge. What is professional knowledge and how does established practitioners establish and communicate their tacit and previously understood knowledge?</p> <p>Research question: HOW DEVELOPS, ESTABLISHES AND COMMUNICATES EXPERIENCED PROFESSIONALS THEIR PROFESSIONAL KNOWLEDGE?</p> <p>Professional knowledge</p> <p>The knowledge base of professionals is a complex phenomenon. One of its peculiarities is the mixture of theoretical insights from various disciplines and practical skills, and the confidentiality that is required in specific situations. To adequately analyse this phenomenon, we need a conceptual approach that enables us to say something about the device in the knowledge base and the differences between the various elements in it. In a sense, we are talking about practical syntheses in the knowledge base of professionals. Things are linked because they</p> |

are necessary for carrying out specific tasks, not necessarily because their relationship is theoretically well justified. Rather, the grade of the practical task determines which knowledge elements are relevant within a professional knowledge base (Grimen, 2008 p. 84).

METHODS /METHODOLOGY (up to 100 words)

The data collected for this master thesis: Apprentice, learning, training-book (1999), was conversations with four apprentices and a recent graduate, over two days about learning in the workplace. One of the key findings was that their learning process was based in large part on tacit knowledge. It's been twenty years since that time, and all five informants are now experienced professionals in various occupations in the field of education and child welfare. Four of the same five informants that was interviewed 20 years ago, took part in a joint focus group interview in Mai 2018. The informants talked about important knowledge that they learned and did not learn at school, as an apprentice and as students in further studies. This is a qualitative study with a phenomenological approach.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

It is a goal to contribute to new knowledge about what professional knowledge is, and to develop new knowledge about how professionals' tacit knowledge is and how it is being developed and established. Alone and communicated in a community of practitioners.

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Digital tools and skills (paperpresentations)

1. Sirpa Laitinen-Väänänen & Burns Eila - *Empowering video-observations connecting practice and theory in professional higher education (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Empowering video-observations connecting practice and theory in professional higher education |
| AUTHOR(S) and AFFILIATIONS |
| Sirpa Laitinen-Väänänen (PhD, Senior Researcher) & Burns Eila (PhD, Senior Lecturer) |
| KEYWORDS (3-5) |
| Video-observation, professional teacher education, empowering, professional development |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |

Crucial and characteristic for vocational and professional higher education is the tight integration of practical knowledge with theoretical and metacognitive knowledge. The development of expertise is a time-consuming process as experts and facilitators of learning need to be able to integrate and apply different elements of expert knowledge in a coherent way. Education programmes have stated to «pay little attention to many forms of knowledge important at work» (Stenström & Tynjälä 2008, 16). One method to enhance this integration can be a systematic and scaffolded video-observation of one own's authentic work situations, where students are encouraged not only observe, but also, analyse and reflect on their practice in the frame of theories studied.

We argue that teachers need their own experiences of video-observations to understand, justify and apply video-observations as a teaching method to their own practices. Thereby, we developed a video-observation model (Participatory and Empowering Video Analysis- model, PEVA™) for professional teacher education (Burns & Laitinen-Väänänen 2018) and studied the application of the model from teacher-students' perspective. One of the aspects in developing the model that was based on previous studies, was the suggestion that observing one's own work, and particularly peer's work (Wu & Kao 2008), would be empowering and encourage teachers to develop and make changes to their working practices. The current research sheds light on this perspective.

METHODS /METHODOLOGY (up to 100 words)

The data was collected as an integral part of a teacher-students' study programme. After each course and at the end of the whole programme, students were instructed in their learning assignments to reflect on their learning. For this study, teacher-students were asked to focus on reflecting on their experiences of using video-observations during teaching practice.

The data consisted of 14 students' reports, formulating the main data, and of the notes made by the researchers gathered in the feedback sessions together with students. The study was qualitative in nature and the analysis applied inductive content analysis (Elo & Kyngäs 2008).

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The results clearly indicated that teacher students experienced recording, saving and sharing the videos with their peers and the teacher educator as a difficult and daunting task at the beginning of the assignment. However, after overcoming the technical difficulties and the challenges of seeing and hear oneself on video, the video-observations were considered to be empowering and an important method of learning from practice. In addition, the reflective feedback sessions together with peers and the teacher educator, were seen as highlighting moments in the students' learning process in encouraging and empowering the teacher students.

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2. Vilhelmiina Harju and Leila Pehkonen, University of Helsinki - *Student teachers' digital skills in Finnish vocational teacher education (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Student teachers' digital skills in Finnish vocational teacher education |
| AUTHOR(S) and AFFILIATIONS |
| Vilhelmiina Harju and Leila Pehkonen, University of Helsinki |
| KEYWORDS (3-5) |
| Vocational teacher education, student teachers, digital skills, initial teacher education |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Today, teachers need multifaceted digital competence in their work as teachers. The aim of this study was to examine, how does vocational teacher education programs in Finland provide possibilities for student teachers to learn digital skills in present vocational teacher education. In addition, the paper examined, how do student teachers experience and describe their current digital skills. The research questions were:</p> <ol style="list-style-type: none"> 1) How does student teachers', studying in vocational teacher education, experience learning of digital skills during teacher education? 2) How does they experience and describe their own digital skills needed in studying and teaching? <p>Teacher competences do not include only pedagogical skills needed in a classroom. They are wider and more complex and realize on the individual, school, and community levels. Teaching, as well as other professions in today's society, requires using of transversal skills, in which digital skills or competences are essential part of. Although teacher education cannot fully</p> |

prepare prospective teachers for their future career, it should still offer tools to face the constantly changing and digitalized working life.

METHODS /METHODOLOGY (up to 100 words)

The data for the study were collected with an e-questionnaire including both closed and open-ended questions. The questionnaire was built in collaboration between University of Helsinki and Beijing Normal University. In Finland, the data were collected in spring and autumn 2018. The questionnaire was sent to student teachers studying in vocational teacher education. In all, 97 students responded. The questionnaire responses were supplemented with interviews with students. These interviews were carried out in autumn 2018.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Initial results indicate that students experience that vocational teacher education has helped them to achieve digital skills quite well in general. Education programs did not, however, offer possibilities to learn these skills evenly: For example, students felt that education has helped to use digital technology to analyze information and to interact with experts or members of local/global communities only somehow or weakly.

Student teachers also evaluated their own digital competences based on own teaching experience. Again, they evaluated their own skills to be quite good in general. The skills that were evaluated as weakest, included understanding of ethical issues and teaching multiliteracy skills.

REFERENCES

- 3. Christa Tigerstedt, Arcada University of Applied Sciences/HELLA (Higher Education Learning Lab) & Charlotta Hilli, Åbo Akademi University/HELLA (Higher Education Learning Lab) - *Learning team leadership and work life skills through online collaboration in virtual learning environments (ENG)***

Collaboration and online learning are both crucial parts of the professional development in today's higher education institutions. In this article we investigate the process of online, collaborative learning among students in higher education in Finland. The aim is to examine the chosen learning module design and discuss it in relation to the students' evaluation of their competency and skills learning. The aim is also to look into how well this design and the chosen tools as well as the milieu are suitable for the learning about leadership and other so called soft skills or work life skills (for example collaboration).

Self-directed learning theory and student centered approaches to learning form the theoretical stepping point for this article (Hoid, 2016; Garrison, 1997 etc). Furthermore research into online teaching and collaboration is discussed in the theory section (Beckmann & Weber, 2015; Chor, 2008; Sims, 2015 etc).

The research follows a pragmatic and qualitative approach and data was collected with the help of three, written, reflective assignments. In total 241 students were enrolled in the learning module Teams and Leadership where the data was collected.

Preliminary results show that collaboration online is both fruitful and important for the students. The results include many insights for educators who want develop online learning modules with high emphasis on collaboration and coaching.

Key words: online learning, collaboration, higher education, leadership course

Knowledge and Learning Curriculum (paperpresentations)

1. **Eveliina Asikainen & Kaisa-Leena Ahlroth, Tampere University of Applied Sciences - *Circular Economy and Sustainable Development in the Curriculum for Professional Teacher Education (ENG)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Workshop (round table) |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Circular Economy and Sustainable Development in the Curriculum for Professional Teacher Education |
| AUTHOR(S) and AFFILIATIONS |
| DSc. Admin, Senior Lecturer, Biologist Ms. Eveliina Asikainen and MSc. Admin, Head of Professional Teacher Education Ms. Kaisa-Leena Ahlroth, Tampere University of Applied Sciences |
| KEYWORDS (3-5) |
| Professional Teacher Education, Circular Economy, Sustainable Development, Curriculum |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Development |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>The greatest challenges our society faces, climate change, inequality and change in work, are complex in nature. That is why our educational system should aim for deep learning of changing the worldview and raising people who have the abilities, skills and attitude to face the challenges. The role and importance of the education is even higher than before in reaching the goals.</p> <p>Professional teachers educate the workers and professionals of the future. Their know-how on sustainable development and circular economy will promote the students' development towards professionals with the skills and attitudes to change working life practices. These themes should be included in the curricula of the professional teacher education that gives the pedagogic eligibility for the teachers.</p> <ul style="list-style-type: none"> - how to include circular economy and sustainable development in the curriculum of professional teacher education? - how to co-operate with the working life with these themes? - how to further sustainable development and circular economy through education? |
| METHODS /METHODOLOGY (up to 100 words) |
| Workshop/round table discussion in small groups depending the amount of the participants. The main interest is to have opinion, experiences, examples and/or proven theories about circular economy and sustainable development in curricula |



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| of education as well as the co-operation with the working life and other partners in a Nordic and international perspective. |
| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
| Proven experiments and knowledge of the matters that can be included in the curriculum of professional teacher education. About the results of the workshop will be written articles in TAMK Journal and other suitable publications within the themes as well as in blog. |
| REFERENCES |
| The Professional Teacher Education in Tampere University of Applied Sciences is one of the five institutes in Finland to educate the professional teachers. TAMK educates professional teachers in Finnish and English as well as professional guidance counsellors and professional special need teachers. TAMK and Tampere University constitute the Tampere higher education community with a multidisciplinary education and strong connections to the working life. At the moment we are renewing the curriculums in terms of becoming even stronger higher education community nationally and globally. |

2. Eila Pajarre, Sanna Kivimäki, Kati Toikkanen, Tampere University & Juho Tiili, Tampere University Of Applied Sciences - *Working life skills as a part of university education?* (ENG)

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| PRESENTATION FORMAT: Paper |
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| LANGUAGE FOR PRESENTATION: English |
| |
| TITLE: Working life skills as a part of university education? |
| |
| AUTHOR(S) and AFFILIATIONS: Eila Pajarre (Tampere University), Sanna Kivimäki (Tampere University), Kati Toikkanen (Tampere University), Juho Tiili (Tampere University Of Applied Sciences) |
| |
| KEYWORDS (3-5): working life, general skills, higher education |
| |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS): development |
| |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>According to future analysts, generic skills are becoming increasingly important for newly graduates (e.g. Bakshi et al. 2015). Although the employability of a graduate is dependent on many attributes such as the labour market situation and the graduates' personal career-building skills, and even although the transferability of generic skills from university to workplace has sometimes been questioned, human capital skills gained during higher education still form the core component of graduate employability (Clarke 2018).</p> <p>Making transferable skills visible in the degree and in individual courses, helps students to recognize them better than they currently do. The students already gain many transferable skills during their studies but if they are not written out in the learning outcomes, the students are less likely to recognize them.</p> <p>The Higher Education community of Tampere, comprising of Tampere University and Tampere University of Applied Sciences, made a decision in May 2018 that all degrees in both universities should include the following areas of expertise:</p> <ul style="list-style-type: none"> ○ Learning skills and critical thinking |

- Ethics
- Employability skills
- Information technology and digital skills
- Innovation
- Interaction and communication skills
- Social understanding and economic and leadership skills
- International outlook and global responsibility

METHODS /METHODOLOGY (up to 100 words)

The generic skills are to be implemented into degrees via competency-based curriculum and each degree can interpret these common learning outcomes from the perspective of the competency needs of the degree. The learning outcomes are mainly to be achieved within the study units and theses integrated in degree studies, not in special courses. In practice this means that these skills should be included at least in the degrees' learning outcomes but preferably in the learning outcomes of study modules and courses as well.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Including generic skills in learning outcomes should help students to recognize more widely their potential in the labour market and to make their employment easier.

When the generic skills are part of learning outcomes, those should also be assessed somehow. This requires new kind of leadership from faculties and collaboration between teachers to ensure that the teaching methods support gaining these skills. Co-operation between teachers is needed to ensure that e.g. several teachers do not use the same methods simultaneously or that there are not many project works scheduled too near to each other.

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- 3. Petri Salo, Åbo Akademi University - *On the multidimensionality of competence* (ENG)**

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| On the multidimensionality of competence |
| AUTHOR(S) and AFFILIATIONS |
| Professor Petri Salo, Åbo Akademi University |
| KEYWORDS (3-5) |
| Competence, competence-based education and training, basics for qualifications |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>The concept of ‘competence’, it’s conformity with and analytical applicability to contents, processes, methods and tools used in VET and world of work, is a challenge. Competence is a dynamic, multidimensional and ambiguous, culture and context-dependent phenomenon, Therefore, it is appropriate to conceptualize it from a holistic perspective, and attend to as consisting of overlapping qualities. To be related to with complementary approaches. On the basis of overviews on competence (Blömeke, Gustafsson & Shavelson 2015; Le Deist & Winterton 2005; Mulder, Weigel & Collins, 2006) three complementary approaches are identified: a behavioural-functionalistic approach, a generic approach and a humanistic-professional approach.</p> <p>The research question is: <i>what is competence when studied in the light of the Basics for qualifications, as formulated in the establishment of competence-based VET in Finland?</i> The reform of VET in Finland 2018 converted the school-based VET into CBET. The competencies relevant to the occupations are defined, formulated and communicated in the <i>Basics for qualifications</i>. These include learning outcomes and assessment criteria for the competences for occupation at hand. They are to be used for validation of prior learning, and decisions on and guidance for individual paths for reaching the competencies within a certain occupation.</p> |
| METHODS /METHODOLOGY (up to 100 words) |
| A tentative framework consisting of (a) three approaches to competence (behavioural-functionalistic, a generic and a humanistic-professional) alongside with (b) Fischer and Bauers (2007) four types of problem-solving (guided deterministic performance, systematic rule-based, theory guided and experience-based) and (c) Hebrards (2013) four contrasting criteria for analysing competence statements, are used in a abductive manner to, describe and analyze dimensions of competence, as formulated in a small selection of Finnish Basics for qualifications (BFQ:s). |

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Analysis of BFQ:s show that vocations and occupations, their traditions are formed, understood and explicated, in various manners. Secondly, the relationship between the pedagogical concept and tools - learning outcomes and assessment criteria - is multifaceted. Thirdly, accomplishing given tasks coincide with the context at hand, conceptual orientations and understandings considering the accomplishment in the context, and abilities to plan and handle work processes. Various forms of knowledge and problem solving are referred to as aspects of competence. Lastly, capability to use experience, models and frameworks to analyse and develop one's performances are referred to in multiple ways.

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Session 4 (Thursday June 14th 15.15-16.45)

Digital tools and skills (workshop)

1. **Giulia Messina Dahlberg, Ingrid Berglund and Susanne Gustavsson University of Gothenburg, Sweden. Steinar Karstensen and Arne Roar Lier OsloMet, Norway - *Virtual Vocational Didactics in VET (ViVoD). Analytical explorations and educational opportunities. (SWE / NOR)***

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Workshop

LANGUAGE FOR PRESENTATION Swedish/Norwegian

TITLE Virtual Vocational Didactics in VET (ViVoD). Analytical explorations and educational opportunities.

AUTHOR(S) and AFFILIATIONS Giulia Messina Dahlberg*, Ingrid Berglund and Susanne Gustavsson University of Gothenburg, Sweden Steinar Karstensen and Arne Roar Lier OsloMet, Norway *Corresponding author: giulia.messina.dahlberg@gu.se

KEYWORDS (3-5) Virtual vocational didactics, digitalization, vocational education and training, simulation, virtual reality, continuity

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Work in progress

FRAMING (General description, research questions, theoretical framework) (up to 200 words) The challenges and opportunities of a digitalised era when it comes to the planning, implementation and evaluation of educational practices have been focused upon in research and by policy makers over the last decades. Digitalisation is seen as playing an important role in creating open, inclusive and future-oriented educational activities, not least in vocational education and training (VET). Having said that, its role in education continues to be treated uncritically, especially in relation to issues of (dis)continuity between education and work. Here, the study of boundaries, boundary objects and boundary crossing through the use of digital tools (e.g. simulation-based learning and virtual reality, VR) becomes central (Akkerman & Bakker, 2011; Nore & Lahn, 2014). In addition, virtual vocational didactics (ViVoD) is closely linked to the development of professional practice in specific trades, with a direct link between professional, authentic work tasks and requirements and vocational teacher training (Nore, 2015). The main objective of this workshop is to establish a forum for dialogue on the challenges and opportunities of the digitization of vocational didactics. More specifically, we aim at exploring the following issues: i) what are the ways that ViVoD is implemented and integrated in particular domains in VET?, ii) what are the consequences of such implementation for teachers and students when it comes to students' development of professional skills for the future? iii) what kinds of digital tools and environments are currently implemented and used in ViVoD and with what purpose?

METHODS /METHODOLOGY (up to 100 words) By bringing together data from three different projects: YRKSIM, Yrkesutbildningar och digital körsimulering: 2018-ongoing (Gustavsson et al., 2018), Learning Factory and Norsk Katapult 2018- ongoing, Virtual welding in a didactic perspective; 2017-ongoing (Karstensen & Lier 2018). All projects build upon an action-research design in which participants use and inhabit a range of digital tools and practices. Thus, the projects have an interest in the study of human interaction and learning from framings of practice theory by focusing on, for instance, video recordings of participants use of digital tools (e.g. virtual simulators, VR glasses) students' individual work with e-portfolios, teachers' planning and course design, mainly in the domains of the natural resources (naturbruk) and industrial and technical programmes.

EXPECTED OUTCOMES/RESULTS (up to 100 words) Issues of professional-based training, control, standardization, globalization and sustainability are only some examples of the challenges where digital tools and learning environments are seen as possible and relevant solutions in a post-modern era (see also Moreno Herrera, 2016). Furthermore, there exists a paucity of scholarship that focuses on pedagogical issues related to ViVoD in VET. Taking the above as point of departure, the ViVoD workshop can contribute towards the creation and development of emerging practices that, in turn, aim at bridging the gap between educational and work as well as virtual and real in today's changing educational landscapes.

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Vocational training between schools and working life (paperpresentations)

1. Åsa Mårtensson, Linköpings universitet, IBL - *VET teachers work in school to create sameness and continuity. (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| VET teachers work in school to create sameness and continuity. |
| AUTHOR(S) and AFFILIATIONS |
| Åsa Mårtensson, Linköpings universitet, IBL |
| KEYWORDS (3-5) |
| VET teachers, boundary crossing, in school work, |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>The aim with the paper is to describe and analyse how VET teachers work in school to overcome the differences between school and work settings. The main questions asked in the paper are; How does the VET teacher create 'sameness and continuity' for students in their in-school practice?</p> <p>The theoretical perspective is based on Lave and Wenger (1991) and Wenger's (1998) concepts of 'community of practice' (CoP) and 'situated learning' specially the notion of boundary crossing. The concept is used as a tool to define individuals within the community and investigate what and how they create connections and continuity for learners. Wenger (1998) describes how learning at the boundary is necessary for communities to continue to develop. There is therefore a mutual interest in communities overlapping to connect and learn across boundaries. Boundaries implicate both differences and similarities between communities. When boundaries suggest discontinuity, which can create difficulties for learning across them, it becomes the VET teachers' task to overcome them since they are responsible for planning for learning at the workplace. The suggestion here is that they do this by at school creating sameness and continuity between workplace and in-school work where differences and discontinuity can cause disturbances in learning.</p> |
| METHODS /METHODOLOGY (up to 100 words) |
| The empirical study consists of 15 interviews with VET teachers from three different programmes. A thematic analysis was conducted and patterns in the interviews were developed into themes (Boyatzis, 1998; Braun & Clarke, 2008). |
| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
| The results show that the school setting affects the VET teacher's work. In cases where the classroom is similar to the workplace the VET teacher uses the workplace differently in his or her teaching. The construction teacher works in school but has a construction site as classroom and doesn't in his teaching relate to the workplace. The childcare teacher has a classroom no where similar to the students' future workplace. These teachers express the need of connecting to the workplace to a high extent in their classroom work. This study contributes to the understanding of VET teachers' work in school, creating sameness and continuity in different ways. In relation to the VET teacher training |

institution it becomes an important task to make the students aware of their role and possibilities in overcoming discontinuity, creating sameness and continuity.

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2. Jan Bisgaard, Københavns Professionshøjskole / University College Copenhagen - *Facilitering af innovationsprocesser i praktik (DA)*

Baggrund og motivation: I mit ph.d-projekt har jeg undersøgt, hvad der styrker lærlinge og studerendes engagement og læring, når de er i praktik i vekseluddannelser. Fokus er her praktikforløbene i for erhvervs-, erhvervsakademi og professionsbacheloruddannelserne i Danmark, der alle, men på forskellig vis er organiseret som vekseluddannelse, hvor en større eller mindre dele af disse uddannelsesforløb afvikles som praktik på et eller flere praktiksteder. I projektet etableres en helhedsforståelse af henholdsvis læring i praktik og praktikens didaktik. Her peger jeg bl.a. med afsæt i Ellsstöms 2011 på at lærlinge og studerende til tider arbejder med innovationsprocesser som en del af deres praktikforløb. På nogle praktiksteder er det en forventning og på andre praktiksteder fungerer lærlinge og studerendes innovationsprocesser som undergrundsprocesser, som de selv styrer og vurderer. Jeg peger så på at det styrker lærlinge og studerendes mulighed for udvikling af reflekterede innovationserfaringer, hvis de møder en praktikvejleder, der bidrager til at facilitere lærlinge og studerendes arbejde med deres innovationsprocesser, så den ikke fungerer som tilfældige undergrundsprocesser. I faciliteringen af disse processer vil det så ifl. Tanggaard (2008) være relevant at lærlinge og studerende dels lærer at afgrænse og analysere en autentisk problemstilling på praktikstedet, dels lærer at udvikle, selekttere og afprøve forskellige udviklingsforlag og dels lærer at implementere deres ideer. Jeg peger således på, at det styrker lærlinge og studerendes mulighed for udvikling af reflekterede innovationserfaringer, hvis de møder en praktikvejleder, der bidrager til at facilitere lærlinge og studerendes arbejde med deres innovationsprocesser, så den de ikke fungerer som tilfældige undergrundsprocesser. Yderligere er det essentielt i udviklingen af reflekterede innovationserfaringer, at praktikvejlederen faciliterer lærlingens eller den studerendes refleksionsproces over arbejdet med innovationsprocessen, så hun/han danner sig reflekterede erfaringer der kan anvendes i andre situationer i eller uden for praktikforløbet. Derfor påpeger jeg i mit Phd-projekt, at praktikvejledere må have viden om og erfaring med at

facilitere lærlinges og studerendes arbejde med innovationsprocesser. Arbejdet med innovationsprocesser som en del af praktikforløb er som sådan ikke noget nyt. Men forventningen om at der som en del af praktikforløb arbejdes med innovationsprocesser, bliver i øget grad formaliseret som en del af læringsmålene. Derfor vil det være relevant at undersøge, hvordan praktikvejledere på forskellig vis kan facilitere lærlinge og studerende arbejde med innovationsprocesser i deres praktikforløb. Dette leder frem til forskningsspørgsmålet.

Forskningsspørgsmål: Hvordan kan praktikvejlederen styrke lærlinge og studerendes udvikling af refleksive innovationserfaringer som en forventet del af et praktikforløb?

Metodiske overvejelser Undersøgelsen vil tage afsæt i den del af mine tidligere observationer og interview med lærlinge og studerende i praktik og deres praktikvejledere. Desuden vil jeg interviewe forskellige praktikvejledere om deres overvejelser i forbindelse med deres facilitering af deres lærlinge og studerendes arbejde med deres innovationsprocesser. De empiriske fund vil så blive analyseret med afsæt i Ellsstöms (2011) skelnen mellem produktionslogik og udviklingslogik på en arbejdsplads, Tanggaards (2008) forståelse af innovationsprocesser og Deweys (1916) perspektiv på udvikling af refleksive erfaringer, samt Schöns (1983) perspektiv på refleksionsprocesser. Måtte det være muligt at rejse midler til det, vil det være yderligere relevant at etablere nogle didaktiske eksperimenter, hvor praktikvejledere får mulighed for at udvikle deres viden og erfaring med at facilitere lærlinge og studerendes arbejde med innovations processer og udvikling af refleksive innovationserfaringer, for deraf at uddrage, hvordan praktikvejledere på forskellig vis kan medvirke til at facilitere lærlinge og studerendes arbejde med innovationsprocesser som en del af deres praktikforløb på forskellige vekseluddannelser.

Forventede resultater Det forventes, at undersøgelsen vil lede frem til en fornyet forståelse af hvordan praktikvejledere som en del af lærlinge og studerendes praktikforløb, arbejder med facilitering af lærlinge og studerendes arbejde med innovationsprocesser. Desuden er ambitionen at udvikle en model, der kan støtte praktikvejledere i deres arbejde med facilitering af lærlinge og studerendes arbejde med innovationsprocesser og udvikling af refleksive innovationserfaringer.

Keywords Praktikvejledning, praktikforløb, innovationsprocesser, refleksive innovationserfaringer, facilitering.

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3. Frank Egeland, University of Agder - *Forberedelse av ungdomskolelever til valg av yrkesfag i Norge. (NOR)*

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Paper

LANGUAGE FOR PRESENTATION Norsk

TITLE Forberedelse av ungdomskolelever til valg av yrkesfag i Norge.

AUTHOR(S) and AFFILIATIONS Frank Egeland. (frank.egeland@uia.no) Universitetet i Agder. Norge

KEYWORDS (3-5) ungdomsskole, utdanningsvalg, valgfag, arbeidslivsfag, frafall i vgs.

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Formålet med paperet er å sette lys på, hvor lite strukturert den norske ungdomskolen forbereder elevene for valg av yrkesfag til den videregående skolen. I den norske ungdomskolen kan en dele fagene i tre hovedgrupper. Den første gruppen omfatter basisfagene, den andre gruppen de estetiske fagene og den tredje grupperingen kaller jeg for «yrkesfag». Det er utdanningsvalg, arbeidslivsfag og valgfag. Ut av de foreløpige resultatene kan en formulere en hypotese: Manglende praktisk yrkesrettet utdanning i ungdomskolen er en av årsakene til at gjennomføringsgraden i den norske videregående skolen på yrkesfaglige programfag er lav - (60%).

FRAMING (General description, research questions, theoretical framework) (up to 200 words) Denne studien tar for seg «yrkesfagene», og hvilke muligheter ungdom har for å drive med forberedelser til-, og gode valg av, yrkesfaglige programfag i den videregående skolen. Problemstilling lyder derfor «Hvordan forberedes ungdomskolelevne til valg av yrkesfag i Norge?» Dette paperet beskriver situasjonen i

8 (5+3) ungdomsskoler i Sør-Norge. Målet med undersøkelsen er å analysere hvordan det undervises i det obligatoriske faget utdanningsvalg sett opp mot målene i fagplanen. Og hvilken kompetanse har de som underviser. Og hvilke kvalifikasjoner og hvilken kompetanse har lærerne som underviser i valgfagene og faget arbeidslivsfag. Videre ser jeg på hvordan elevmassen fordeler seg på faget arbeidslivsfag i 8., 9. og 10. klasse. De elevene som har sine sterkeste preferanser i forhold til praktiske fag ville fått utnyttet sitt potensiale og sine evner på en bedre måte hvis de hadde hatt lærere med en yrkesfaglig kompetanse. Dette gjelder såvel relevant undervisning som fremsnakking av yrkesfag. Forslag til løsninger kan være at det må kreves at lærerne som underviser i «yrkesfagene» i ungdomskolen – har en formell yrkesfagrettet kompetanse. Slik det er nå er det ikke krav til en formell kompetanse og det er tilfeldigheter som avgjør hvem som har ansvaret for å undervise i «yrkesfagene» i ungdomsskolen.

METHODS /METHODOLOGY (up to 100 words) Som analyseverktøy brukes et spørreskjema og et kvalitativ semistrukturert intervju. 5+3 skoler svarer på spørreskjema og en universitetslektor, en fra skoleeier og to rådgivere blir intervjuet om faget utdanningsvalg.

EXPECTED OUTCOMES/RESULTS (up to 100 words) Et foreløpig resultat er at bare 7 av 162 lærere som underviser i ungdomskolen har noen form for yrkesfaglig formell utdannelse. Ingen av rådgiverne som primært har ansvaret for det obligatoriske faget Utdanningsvalg, har praktisk erfaring fra andre yrker enn læreryrket med en basisfagutdannelse. En av skolene som er med i stikkprøven gir ikke et reelt tilbud om faget utdanningsvalg som er alternativet for de elevene som ikke ønsker et andre språk. Resultatene så langt viser til at ungdomskolelevne ikke blir godt nok forberedt og informert til en utdannelse innenfor yrkesfag.

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Yrkeskunnande och förändring (paperpresentations)

1. **Ann Karin Sandal, Western Norway University of Applied Sciences - *21st century skills and self-regulation – two sides of the same coin? (NOR)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| 21 st century skills and self-regulation – two sides of the same coin? |
| AUTHOR(S) and AFFILIATIONS |
| Ann Karin Sandal Western Norway University of Applied Sciences e-mail: ann.karin.sandal@hvl.no |
| KEYWORDS (3-5) |
| 21 st century skills - self regulation - vocational education and training |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>21st century skills are framed as an overarching concept in education policies in many OECD countries, aiming to grasp the future challenges education is faced with. Shortly, 21st century skills can be defined as skills and knowledge that can be transferred or applied into new situations, including both cognitive and non-cognitive skills. The rapid changes in i.e. economy and labour markets make demands on the education system at all levels, and especially towards the knowledge, skills, attitudes and values young people acquire through education (OECD, 2018; Pellegrino & Hilton, 2012). In the Norwegian context, there is an ongoing revision process of the curricula (“Fagfornyelsen”), which reflects these challenges (The Norwegian Directorate for Education (2018)). Students shall develop critical thinking and reflection, transferable knowledge and skills, and be provided with learning contexts promoting deep learning.</p> |

Simultaneously, there has been a growing interest in pedagogy in self-regulation as a trait related to motivation and assessment for learning (Smith, Gamlem, Sandal & Engelsen, 2016).

Self-regulation is related to how the learner set goals and try to monitor, regulate, and control cognition, motivation, and behaviour in order to reach their goals (Andrade, 2010).

How can these concepts be interpreted and contextualized and in VET?

METHODS /METHODOLOGY (up to 100 words)

To answer the question in this paper, a review of literature and relevant research in the field will be presented, together with preliminary findings from a study of VET-teachers` interpretations of the concepts presented. The empirical data is collected through three focus group interviews with VET- teachers (Liamputtong, 2011). The main focus in the interviews were assessment for learning, self-assessment and self-regulation skills.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The research in self-regulation as a cognitive skill seems generally to be related to traditional school contexts and general and common core subjects in primary and secondary education, at least in research conducted in the Nordic countries. However, there are interesting international studies to relate to, which will be presented at the paper session (i.e. Jossberger et al., 2010). The results of the review will be presented and discussed together with the preliminary findings from the focus group interviews

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2. Klara Rokkones & Elin Bø Morud - *Studentenes erfaringer med videreutdanning i Yrkesfaglærerløftet. (NOR)*

Hensikt:

Hensikten med vår studie er å få ny kunnskap om hvordan yrkesfaglærerne erfarer og tar i bruk kompetanse fra videreutdanninger til å drive endrings- og utviklingsarbeid på egen skole. Vi ønsker også å få innsikt i hvilken støtte og forankring eventuelle gjennomførte og planlagte utviklingsprosjekter får i kollegiet, og i skolens ledelse. Som ansvarlige for videreutdanningstilbudene (EVU) for yrkesfaglærere er vi interessert i tilbakemelding på om vårt innhold og vektlegging erfares som relevant i yrkesfaglærernes daglige virksomhet. Videre hvordan EVU bidratt til økt kompetanse som bidrar til at de kan initiere og ta ansvar for ledelse at utviklingsarbeid i egen praksis.

Vi tar utgangspunkt i noen av tilbudene i piloteringen av EVU for yrkesfaglærere som ble igangsatt av Udir. i 2016². Som grunnlag for studien har vi gjennomført to forberedende kartlegginger i piloteringsperioden (2017). I denne studien vil vi gjennomføre fire fokusgruppeintervju (mars 2019) med mål om å få innsikt i hvordan deltakere på EVU tar i bruk og får nytte av sin kompetanse etter gjennomført studie. Studien tar utgangspunkt i følgende hovedproblemstilling: Hvordan erfarer yrkesfaglærere samarbeid om utviklingsarbeid på egen skole? Aktuelle forskningsspørsmål kan i tillegg være: hvordan kan utviklingsarbeid bidra til endring i egen praksis, og hvordan bidrar yrkesfaglærerne kompetanse om utviklingsarbeid til å initiere og lede utviklingsarbeid blant kollegiet på egen skole? Vår analyse er knyttet opp mot teori og forskning av læreres læring på flere nivå.

Teoretisk rammeverk:

Studien bygger på teori om læreres læring, og spesielt om yrkesfaglærernes læring (Rokkones, 2017, Rokkones og Postholm, 2012, Ertsås & Irgens, 2012, Dreyfus & Dreyfus, 2005). Det gir oss kunnskap om at læreres læring krever en annen tilrettelegging, både fra UH-sektoren og det kreves mer av lærernes ledere i skolen. Samtidig vil vår kartleggingsstudie (2017-2018), relevante styringsdokumenter og policy være en del av grunnlaget for de analyser vi gjør.

3. Anna-Maija Niemi - Educating self-responsible workers? Narratives on learning, teaching and work in the context of vocational education and its reform (ENG)

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Educating self-responsible workers? Narratives on learning, teaching and work in the context of vocational education and its reform |
| AUTHOR(S) and AFFILIATIONS |
| Anna-Maija Niemi |
| KEYWORDS (3-5) |
| the vocational education reform, ethnographic research, self-responsibility, pedagogical practices |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| presentation of a research article in process |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>This presentation is based on an ethnographic study concerning vocational education and training in Finland in the light of the current vocational education reform. The interest is in how the narratives of the students and the educators recount the ethos of the current vocational education reform. I aim to analyse the students' accounts, experiences and educational practices, as well as to bring out educators' viewpoints. Thematically, the article considers pedagogical practices and learning, students' assumed self-responsibility, and the need for educational support in relation to their wish to receive proper teaching and to become well educated (see Niemi & Rosvall 2013). In addition, I discuss the themes of work and on-the-job learning. The research questions are the following: 1) <i>How are pedagogical practices organised and how do the students recount their studies, teaching and support for learning?</i> 2) <i>How do the narratives on both education and working life practices relate to the discourse on 'self-governing'?</i> The theoretical approach I draw upon is the discourse of self-governing (Rose 1999) within the prevailing education policy context.</p> |
| METHODS /METHODOLOGY (up to 100 words) |
| <p>The approach of the study was ethnographic and narrative (Lahelma et al. 2014). I conducted a fieldwork in one vocational institute in the Helsinki metropolitan area, and its Business and Administration degree programme. The data consist of fieldnotes produced in the lessons, breaks, various meetings and on-the-job learning periods, as well as transcribed school biographical interviews and group interviews with the students (26) and thematic group interviews with the teachers and other educators (6). The main interest in the ethnographic fieldwork was in making sense of what happened in the school's</p> |

everyday life and how the students and teachers conceptualised both attending school and the educational practices in use.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

My analysis suggests that emphasising individualised study paths and ‘self-governing’ are the central aspects of vocational education reform, but these conflict with the viewpoints of the students and educators of this study. On the one hand, the students called for useful and interesting subjects, clearly advised and progressive teaching and educational support – both at school and at the workplaces. On the other hand, the educators pointed out a need for more resources for teaching and guidance, which is paradoxical in a societal situation where instead of increasing, the resources for vocational education have actually recently been cut.

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Knowledge and Learning Curriculum (paperpresentations)

- 1. Arja Pakkala, Teppo Karapalo, Jyväskylä University of Applied Sciences. Ilkka Väänänen, Lahti University of Applied Sciences - *Good and developing practices - how to develop working life skills of University actors? (ENG)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper (and oral presentation) |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Good and developing practices - how to develop working life skills of University actors? |
| AUTHOR(S) and AFFILIATIONS |
| Arja Pakkala, Jyväskylä University of Applied Sciences arja.pakkala@jamk.fi Ilkka Väänänen, Lahti University of Applied Sciences ilkka.vaananen@lamk.fi Teppo Karapalo, Jyväskylä University of Applied Sciences teppo.karapalo@jamk.fi |
| KEYWORDS (3-5) |
| Integrative pedagogy, work-based learning, development projects |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |

Often, new pedagogical practices and solutions required by changes in working life are at the focus of higher education pedagogical development projects. In this presentation, we look at higher education pedagogy from the perspective of strengthening working life skills based on development projects carried out in different Finnish higher education institutes. In addition, we outline solutions for how to respond to the challenges posed by previous projects in the various higher education pedagogical practices. Our purpose is to stimulate discussion and to describe the current situation in the development of working life pedagogical skills. The theoretical background of the presentation is integrative pedagogy (Tynjälä & Virtanen 2013.) At the beginning of this presentation, we describe the theoretical frameworks and concepts underlying the projects, the measures taken, and the results achieved, as well as the recommendations for development. We consider the developmental work-based learning in the continuous promotion of work-life and win-win activities in universities. In addition, we describe the process of co-writing, how we worked together. This proposal is a part of the Integrating Education and Work in Higher Education (TYÖPEDA) project funded by the Finnish Ministry of Education and Culture.

METHODS /METHODOLOGY (up to 100 words)

The material of our presentation is based on the eleven practices dealing with working life skills development in Finnish universities between 2015 and 2019. We have reflected them as cases, which describe the practices of integrative pedagogy. We focused on the following three elements: 1) the cooperation between the higher education and working life network, 2) the development of the students' working life skills, and 3) the development of the management skills of the higher education staff.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The results will be presented according the cooperation between the higher education and working life network, the development of the students' working life skills, and the development of the management skills of the higher education staff. We'll answer to the question of good practices in strengthening the working life pedagogical competence of higher education institutions and to the emerged development needs. Finally, we'll construct a narrative of co-writing in the context of Integrating Education and Work in Higher Education (TYÖPEDA) project.

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<https://lehti.yliopistopedagogiikka.fi/2013/10/02/kohti-tyoelamataitoja-kehittavaa-yliopistopedagogiikkaa-opiskelijoiden-nakokulma/> Read 15.02.2019

2. **Maarit Virolainen, Hannu L.T. Heikkinen, Päivi Tynjälä, Anne Virtanen, University of Jyväskylä. Sirpa Laitinen-Väänänen, JAMK university of applied sciences, Anssi Mattila, Laurea university of applied sciences (ENG)**

Building partnerships of universities of applied sciences and workplaces from the perspective of ecosystems of learning

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Paper

LANGUAGE FOR PRESENTATION English

TITLE Building partnerships of universities of applied sciences and workplaces from the perspective of ecosystems of learning

AUTHOR(S) and AFFILIATIONS Maarit Virolainen, Finnish Institute for Educational Research, University of Jyväskylä, Finland contact: Maarit.ha.virolainen@jyu.fi Hannu L.T. Heikkinen, Finnish Institute for Educational Research, University of Jyväskylä, Finland Päivi Tynjälä, Finnish Institute for Educational Research, University of Jyväskylä, Finland Anne Virtanen, Finnish Institute for Educational Research, University of Jyväskylä, Finland Sirpa Laitinen-Väänänen, JAMK university of applied sciences, Jyväskylä, Finland Anssi Mattila, Laurea university of applied sciences, Finland

KEYWORDS (3-5) universities of applied sciences, workplace learning, learning ecosystem, partnership

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Research

FRAMING (General description, research questions, theoretical framework) (up to 200 words) The collaboration of higher education institutions with the world of work has become more and more complex over the last couple of decades. The organization of learning within collaborative networks of educational institutions and the world of work have been pictured from the theoretical perspectives such as integrative pedagogy (IP)^{1,2}, connectivity³ and knowledge recontextualisation⁴. While these approaches enable understanding how

learning is enhanced through combining education and workplace experience, there is an increasing demand to understand the diversified collaborative networks. On one hand, technological solutions enable communication between teachers, students and employers, and sharing of learning assignments both individually and in groups while students are learning at workplace. On the other hand, there is an increasing demand to understand better the co-construction and development of these ecosystems of learning⁵. The research questions are: -Which characteristics of the collaborative HE-workplace networks have become addressed from the perspective of learning ecosystems? -How do teachers perceive the framework of learning ecosystems to fit in understanding collaboration with the world of work? -How do teachers perceive their enhanced collaboration with the world of work from the perspective of the ecosystems of learning?

METHODS /METHODOLOGY (up to 100 words) The study is based on a data collected within the research and development projects of the universities of applied sciences for collaboration with the world of work, i.e. eAMK and Toteemi. The participants of these projects announced good, innovative practices for further investigation. Altogether, eleven exemplary practices have been chosen for further exploration. The presentation utilizes teacher interviews conducted about these practices (n=35) and their thematic analysis⁶. In addition, some data has been collected by videotaping the teacher meetings of developmental projects and teachers' discussions on learning ecosystems. These discussions are used to picture the teacher experience of the ecosystem's framework.

EXPECTED OUTCOMES/RESULTS (up to 100 words) The findings enhance understanding about the teachers' collaborative work with the world of work. Furthermore, the conceptual development of the ecosystems' framework enables more accurate picturing of the multiformity of collaborative networks. When higher education institutions are quested to combine various learning environments, they form the new ecologies of practices. These practices can be pictured to follow ecological principles, such as interdependence, cycles, flows, niches and dynamic balance^{7,8}. The findings show how apt teachers find these

principles to picture their collaborative work. In accordance, they enable the further deepening and development of the ecosystem approach.

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3. Johanna Köpsén, Linköping University (ENG)

Post-secondary VET in Sweden – Knowledge in curricula of Higher Vocational Education

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Post-secondary VET in Sweden – Knowledge in curricula of Higher Vocational Education |
| AUTHOR(S) and AFFILIATIONS |
| Johanna Köpsén, Linköping University, johanna.kopsen@liu.se |
| KEYWORDS (3-5) |
| knowledge; curriculum; higher vocational education |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>This paper investigates how Swedish policy define what knowledge should form curricula for programmes in the Swedish post-secondary VET system called Higher Vocational Education (HVE) where curricula and course syllabi are created locally for each programme by employers. The analysis is led by the research question ‘How do policy define what knowledge should form curricula in HVE?’ and the analysis uses the conceptualisation of knowledge realised as either horizontal or vertical discourse (Bernstein, 1999)</p> <p>The system of HVE is a market of both public and private provision and characterised by great employer influence and it is separate from academic and professional higher education.</p> <p>HVE is one example of the many emerging formations of post-secondary VET in countries all across the world, in which diversity of provision in institutional contexts as well as in working life is expanding. An expansion that is widening accessibility to higher education and that may be providing possibilities of social mobility for disadvantaged groups historically excluded from higher education. However, research in the field raises the question if the expanded access and vocational pathways in higher education actually</p> |

are reducing inequalities (e.g., Bathmaker, 2017; Giani & Fox, 2017; Marginson, 2016). Participation in higher education is not to be presumed as supporting processes for flattened social division.

METHODS /METHODOLOGY (up to 100 words)

The paper presents the results of a qualitative study using theoretical thematic analysis of policy documents. Fourteen Swedish public documents, published between 2006 and 2017, relating to post-secondary VET and the establishment of HVE have been analysed.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The analysis reveals two definitions of what knowledge should form HVE curricula, however these are inconsistent with each other. Originally, knowledge was defined as generated in the production of goods and services and selected by employers. This is segmented, context specific and procedural knowledge realised as horizontal discourse. In 2016 another definition based on the Swedish adaptation of the European Qualification Framework was introduced through changes in regulation. The new definition mainly entails disciplinary knowledge realised in vertical discourse unbound by context. However, as the idea that curricula should be employer-driven is consistent throughout the material, as well as over time, the original definition of knowledge as horizontal discourse appears as the dominant one.

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Assessment and Validation (paper presentations)

1. Sanna Brauer, University of Oulu, Eero Talonen, Oulu University of Applied Sciences - *The Concept of Desired Competences in Digital Open Badge-Driven Learning (ENG)*

There is a growing demand for economically effective accreditation practices that respond individually to local challenges and unique professional needs. This conference paper aims to discuss recent theoretical approaches to digital open badge-driven learning (Brauer, 2019) that could potentially support a competence development to meet the individual professional needs. This summary is the first to present principles for designing digital open badge-driven learning concerning the concept of desired competences in conference proceedings.

Digital open badges offer novel possibilities in identifying and recognising competences independent of how they were acquired. Theoretically, this study draws attention to the potential of digital badging and the competence-based approach in visualising desired competences. Digital open badges encapsulate the individual learning experience and tie performance and achievement to documentation and evidence of learning (Gamrat, Bixler, and Raish, 2016; Reid, Paster & Abramovich, 2015; Ahn, Pellicone & Butler, 2014). 'Work-Integrated Pedagogy in Higher Education' (WORKPEDA) project offers to build the first national pilot of digital open badge-driven learning within the studies of Learning, Education and Technology (LET) master's programme in close connection with the latest research. Working-life connections are highlighted throughout the master's studies. The aim is to determine the concept of desired competences in relation to students' individual interest and recognised needs of working life.

The investigated LET master's programme in education is a full-time two-year international master's programme in University of Oulu. The research represents LET master students' different ideas and views in relation to a competence-based approach to the professional development in the 21st century; it seeks to define the concept of desired competences in digital open badge-driven learning and the competence-based approach based on students' point of view. The data were collected from international master students ($n=14$) in 2018 via group interviews. The study draws on descriptive research methodologies of qualitative data analysis and phenomenography.

The preliminary results of the study offers insights into the principles for designing digital open badge-driven learning concerning the concept of desired competences. The paper explains the main principles of focusing the design model to meet unique personal needs, progression towards peer and community learning, and the recognition of excellence within working communities. The presentation at the conference should realise bilingual providing the premier of terminology of digital open badge-driven learning in swedish. Att ta upp svensk terminologi är viktigt med tanke på nordiskt utvecklingsarbete av kompetensmärkesstyrt lärande.

Keywords: digital open badges, gamification, professional development, digital open badge-driven learning, kompetensmärkesstyrt lärande

2. Julie Leonardsen, NTNU Norwegian University of Science and Technology - *The many faces of an assessor - exploring vocational teachers assessment literacy (ENG)*

Purpose

Assessment literacy (AL) is an essential part of vocational teachers' competence. However, knowledge of how teachers experience the assessor-role is limited in assessment- and vocational research. This study asks: How do vocational teachers experience an assessor-role which negotiate between vocational and educational discourses? It seeks to explore how teachers experience an assessor-role in change, as vocational education evolves to meet expectations from a global knowledge-based society.

Theoretical framework

"Assessment literacy" refers to how teachers understand principles of assessment (Popham, 2009; Stiggins, 1991/1995) by integrating practices, theories and philosophies which support learning. Xu and Brown (2016) argues that elements³ as knowledge base, interpretation of guidelines and framework, consumptions of assessment, cultural and institutional contexts, assessment literacy in practice and learning are crucial for how teachers construct and reconstruct their assessor-identity. I use this theoretical approach to understand teachers' development of AL from a socio-cultural perspective.

Research design

Methodology

This study is rooted in pragmatic qualitative research, has an exploratory approach to data collection and a descriptive approach to data analysis (Savin-Baden & Major, 2013). It is epistemologically rooted in sociocultural perspectives on learning (Vygotsky, 1978), supported by a constructivist worldview.

Context

The context is a Norwegian school-based professional development project, aiming to strengthen individual and collective assessment literacy. This project is a collaboration between a selection of upper secondary schools, a county and a university.

Methods for data collection and analysis

The data is collected through six focus group interviews with 16 teachers from agriculture/forestry, building/construction and restaurant/food-processing, all participating in the development-project. The teachers got a list of themes related to the assessor-role before the interview. Those themes make the basics for both data collection and analysis.

Preliminary findings

Firstly, teachers experience distance between their assessment practice and expectations from educational authorities. Their knowledge base is rooted in vocational traditions and it can be challenging to unite requirements from both vocational and academic sectors when qualifying young people for further professional practice.

Secondly, teachers find it challenging to justify how assessment for and as learning becomes summative grades, reflecting only parts of students' competence. They make criteria for learning outcomes, but they lack tools, language and AL to document learning and assessment in the way educational authorities expects.

Thirdly, teachers describe their assessor-role as "dual". They are crossing borders between their identity as professional practitioners and teachers. Frequent changes in vocational and

educational sectors influenced by a global knowledge-based economy, contributes to give the assessor-role many faces.

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3. Denise Villikka - FinEd: Study plans for Working-life (ENG)

The demographics of students entering university continues to change as national borders disappear, immigration increases and individuals seek degrees during different stages of life. As a result, those entering university may possess hidden knowledge and skills obtained previously during formal studies or in relation to working life that are not taken into account when developing study plans. Therefore, the aim of this action research is the creation of a new digital self-service assessment platform where students can generate automated individual study plans. The three decades of theory building by Ernest Pascarella and Patrick Terenzini on transition pedagogy is used as a theoretical framework for this investigation. The research design is experimental and the methodology is qualitative using questionnaires and individual interviews for the collection of data. This research began in the autumn 2017 and will end in the spring 2019. The expected results of this initiative are the creation, implementation and evaluation of digital tools that will facilitate the progress of university studies for a diverse

student cohort, resulting in expedient graduation and transition into working life. Dissemination includes universities within Finland, partners inside and outside the Nordic network. Publications, keynote presentations including workshops. It is hoped that the concepts developed through this initiative will stimulate genuine collaboration, transparency and the sharing of best practices.

Session 5 Friday (June 14th 10.30 – 12.00)

Eleven I yrkesutbildning (paperpresentations)

1. **Susanne Gottlieb, Danish school of Education - *At blive på sporet – processer der fører til beslutning om at blive eller ophøre på en uddannelse (DA)***

Uddannelsesfrafald er et globalt problem – og et dansk problem! Det gælder især unge voksne i alderen 18-25 år. I Danmark har 44% unge i alderen 22-23 år endnu ikke fuldført en ungdomsuddannelse. Flere har afbrudte grundforløb bag sig på gymnasiale uddannelser og på erhvervsuddannelser.

I et igangværende tre-årigt forskningsprojekt fokuserer vi på beslutningsprocesser hos unge voksne (i alderen 18 – 35 år) i erhvervsuddannelser og voksenuddannelsescentre, når de overvejer om de skal gennemføre uddannelsen eller droppe ud.

Vi ved en del om samspillet mellem individuelle og institutionelle faktorer – og at psykologiske faktorer påvirker beslutningen om frafald. Vi har ligeledes erfaringer med, at forskellige pædagogiske tilgange, som fx mentorordninger, udvikling af relationskompetence og progressive læring kan have positive effekt. Vi ved, at frafald er en proces, der udvikles over tid – og at det er en reaktion på længerevarende fremmedgørelse i uddannelsesverdenen. Men vi ved ikke så meget om den beslutningsproces hos den enkelte unge voksne, der leder til frafald. Derfor er projektets formål at blive klogere på samspillet mellem forskellige risikofaktorer og elevens individuelle udvikling, oplevelser og tanker (i og uden for skolen) i den specifikke proces.

Projektet er et aktionsforskningsprojekt, hvor 14 skoler deltager. Skolerne deltager i forskningscirkler i hele projektperioden. Derudover udvikler og gennemfører skolerne lokale indsatser inden for projektets overordnede ramme. Hver skole er repræsenteret i forskningscirklerne ved en lærer, en vejleder og ofte en leder. I forskningscirklerne præsenterer forskerne løbende resultater fra indsamlet empiri i projektet og anden relevant forskning, der understøtter skolernes arbejde. Skolernes repræsentanter præsenterer

erfaringer med indsatserne, erfaringsudveksler og verificerer forskernes tolkning af projektets empiri.

Empirien i projektet består dels af interview med elever fra de 14 uddannelsesinstitutioner og longitudinelle surveys med de samme elever, hvor vi over 10-15 uger lange perioder har stillet dem de samme fire spørgsmål, og dermed fået 'kurver' over deres 'vaklen' i forhold til om de vil blive på uddannelsen eller afbryde den.

Efter første del af projektet har vi karakteriseret fire typer af uddannelsesforløb for den unge voksne:

- Det stabile forløb, hvor eleven hele vejen igennem har et relativt klart mål med uddannelsen. Eleven har en klar forestilling om at ville gennemføre uddannelsen uanset hvad, der måtte ske.
- Det positive forløb, hvor eleven gennemløber en positiv udvikling hen imod større og større afklaring med, hvad uddannelsen kan anvendes til i forhold til egen karriereudvikling.
- Det ustabile forløb, hvor eleven ikke har et helt afklaret forhold til, hvad uddannelsen skal bruges til. Eleven er eller kommer i situationer, hvor de sociale relationer trækker i forskellige retninger i forhold til at ville gennemføre uddannelsen
- Det negative forløb, hvor eleven ikke har et klart mål med uddannelsen, der er valgt på et 'løst grundlag'. Eleven i denne kategori har ofte personlige og sociale problemer, der kan føre til ustabile sociale relationer i skolen.

Vi er ligeledes blevet klare over i den første del af forskningsprojektet, at de tre væsentligste forhold, når det gælder elevernes beslutningsprocesser i forhold til at blive på uddannelsen eller afbryde denne, er målorientering, tilhørsforhold og beslutningskompetence.

Disse tre fokusområder har vi nu arbejdet videre med i anden del af forskningsprojektet.

Skolerne har igangsat indsatser, der særligt fokuserer på disse tre forhold. Hver skole udvælger én klasse, hvorfra skolen bestemmer, hvem der skal deltage i indsatsen. Indsatsen kan være individuel eller gruppebaseret. Den kan have fokus på tilhørsforhold eller målorientering. Alle indsatser har desuden fokus på beslutningskompetence.

189 elever fra de 14 klasser har ugentligt svaret på fire spørgsmål, hvor de på en skal fra 1 til 7, markerer:

- Hvor sikker er du på, at du vil gennemføre uddannelsen?
- Hvor godt føler du dig tilpas i klassen?
- Hvor godt synes du, du klarer dig i klassen?
- Hvor god er du til at træffe beslutninger i forbindelse med din uddannelse?

Svarene gør det muligt at komme tættere på de processer, der leder til elevers og kursisters beslutning om at blive eller stoppe på en uddannelse. Derfor søger projektfasens undersøgelser at svare på følgende to spørgsmål:

- Hvordan ser processerne ud? Dette får vi svar på gennem det kurvemønster hver enkelt elev tegner qua sine markeringer på skalaen

-
- Hvorfor ser processerne sådan ud? Det får vi svar på ved interview med nogle af de elever, der har markeret karakteristisk mønstre i deres ugentlige besvarelse af de fire spørgsmål (vi har gennemført 31 interviews i denne fase).

Foreløbige konklusioner viser at

- I de forløb, hvor det er muligt at vurdere effekten af indsatsen, kan man konkludere, at indsatsen synes at have en stabiliserende effekt.
- De kursister/elever, som har deltaget, har et mere roligt forløb, hvor en eventuel overvejelse om at holde op tages i 'opløbet'.
- Kurverne viser en række forløb hos kursister, som synes at være på vej ud. I nogle forløb hænger det sammen med, hvor tilpas man befinder sig i klassen og med, hvor godt man synes, man klarer sig fagligt.
- I andre forløb synes kursisten/eleven at være på vej ud, uden det sætter sig spor i opfattelsen af, hvad der sker på skolen.
- På klasseplan er der to tendenser. Den ene er, at der stort set ikke sker noget på de fire variable undervejs. Den anden er, at der er en tendens til et U-formet forløb.
- En interessant konstatering er, at nogle klasser scorer systematisk højere på tilpashed i klassen end på troen på egen faglighed. I andre klasser er det omvendt. Man kan fristes til at tale om sociale klasser og om faglige klasser.
- Det er ikke muligt at dokumentere en systematisk udvikling i kursisternes/eleverne beslutningskompetence.

Disse konklusioner vil blive udfoldet yderligere på Nordyrk konferencen og vil desuden danne grundlag for en artikel, der især fokuserer på analysen af projektets empiriske materiale.

Venlig hilsen

Susanne Gottlieb

Projektdeltagere fra Aarhus Universitet:

- Bjarne Wahlgren, professor
- Vibe Aarkrog, lektor
- Kristina Mariager-Anderson, lektor
- Susanne Gottlieb, lektor emirita og forskningsassistent

Der er allerede produceret artikler fra projektet

- Wahlgren, B., Aarkrog, V., Mariager-Anderson, K., Gottlieb, S., & Larsen, C. H. (2018). Unge voksnes beslutningsprocesser i relation til frafald: En empirisk undersøgelse blandt unge voksne i erhvervs- og almen voksenuddannelse. *Nordic Journal of Vocational Education and Training*, 8(1), 98-113.
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2. Evi Schmid, Oslo Metropolitan University - *Upper Secondary Education for Youth at Risk: A Comparative Analysis of Education and Training Programmes in Austria, Norway, Sweden and Switzerland (NOR)*

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Paper presentation

LANGUAGE FOR PRESENTATION Norwegian

TITLE Upper Secondary Education for Youth at Risk: A Comparative Analysis of Education and Training Programmes in Austria, Norway, Sweden and Switzerland

AUTHOR(S) and AFFILIATIONS Evi Schmid Associate Professor Oslo Metropolitan University Department of Vocational Teacher Education Pb. 4 St. Olavs Plass 0130 Oslo Norway E-mail: evis@oslomet.no **KEYWORDS** (3-5) Vocational Education and Training, Dropout, Youth at risk, Social inclusion, Comparative analysis

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Research

FRAMING (General description, research questions, theoretical framework) (up to 200 words) Based on a comparative analysis of upper secondary education and training programmes for youth at risk in Austria, Norway, Sweden and Switzerland, the aim of this paper is to identify different training models these countries employ to include youth at risk in upper secondary education. Young people who do not complete upper secondary education constitute a particularly vulnerable group: They often have a long and difficult school career behind them, many have performed poorly, and many struggle with learning difficulties and social and mental health challenges (e.g. Lamb, Markussen, Teese, Sandberg & Polesel, 2011; Rumberger, 2011). To ensure that more young people complete upper secondary education, the OECD (2018) suggests designing interventions that address the specific needs of youth at risk dropping out of upper secondary education without achieving qualifications at this level. To this end, the OECD proposes changes in the standard duration, preparatory or personalised support measures to tackle the problems young people meet during the

training. Such programmes tailored to the needs of youth at risk are the focus of this paper, and the research question is as follows: What training models do Austria, Norway, Sweden and Switzerland employ to include youth at risk in upper secondary education?

METHODS /METHODOLOGY (up to 100 words) The study is based on document analysis; the documents studied are public documents like law texts and white papers from the education authorities as well as research publications. The interventions proposed by the OECD to adapt training programmes to the specific needs of youth at risk were chosen as a basis for the comparative analysis. Further structural characteristics of the programmes, which proved to be essential while analysing the documents, complemented the analysis. **EXPECTED OUTCOMES/RESULTS (up to 100 words)** The study found four different education and training models for youth at risk in Austria, Norway, Sweden and Switzerland: Shortened (Norway, Switzerland), prolonged (Austria), individualised (Austria, Norway and Sweden) and preparatory programmes (Sweden). Preparatory and prolonged programmes aim to help young people to achieve ordinary upper secondary qualifications through preparatory measures, more time or more support. Individualised or shortened programmes aim to adapt education and training programmes to young people's needs by reducing the programmes' demands. In all four countries, youths have the opportunity to conclude their education with a certificate at a level lower than ordinary upper secondary education.

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Knowledge and Learning Curriculum (paperpresentations)

1. Øyvind Glosvik, Western Norway University of Applied Sciences - *Some questions on school leadership in VET (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Some questions on school leadership in VET |
| AUTHOR(S) and AFFILIATIONS |
| Øyvind Glosvik, Western Norway University of Applied Sciences |
| KEYWORDS (3-5) |
| Complexity, leadership, learning schools |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Weick (1976) described educational systems as loosely coupled. It was the U.S. he wrote about, but a general idea of sub-systems operating independent has become a household notion of educational systems, often named «complex». Such systems and sub-systems are however not independent from changes around them, hence complexity because loose couplings are unpredictable. Weick's point was that loose couplings might be a good thing in education, as schools enacted on changing circumstances. In this paper, the notion of loose and tight couplings is employed in a discussion of leadership challenges in VET-schools, as ties and links to industries and businesses might differ between study-programmes. Such differences might create complex situations for school leaders. A definition of complexity is derived from Perrow (1984) and Stacey (2012), and is then employed in a discussion on three possible leadership strategies in VET schools: ordering, answering and questioning.</p> <p>New ideas on educational leadership have been offered by OECD in the Leadership for 21st Century Learning Report (2013). It is said that "Leadership is critical because it is strongly determinant of direction and outcomes, whether at the micro level of schools or of broader systems". This paper takes on a broader systems perspective.</p> |

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| METHODS /METHODOLOGY (up to 100 words) |
| Some main findings and recommendations from a qualitative study of a VET-system in a Norwegian county is presented and discussed in view of the theoretical approach mentioned above. 28 interviews were conducted with leaders in schools and training institutions (Glosvik, 2018). |
| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
| The general idea of this paper is to develop a conceptual framework capturing leadership challenges in VET-schools embedded in broader educational systems. As students are crossing borders between schools, training institutions and companies, the traditional notion of school leadership might be challenged. |
| REFERENCES |
| Glosvik, Ø. (2018), «Lærarane ut..og bedriftene inn!» <i>Eit kvalitativt blikk på nokre utfordringar innan fagopplæring i Sogn og Fjordane</i> . Utkast til HVL-rapport, januar 2018 (upublisert) |
| OECD (2013), <i>Leadership for 21st Century Learning</i> , Educational Research and Innovation, <i>OECD Publishing</i> , Paris, https://doi.org/10.1787/9789264205406-en . |
| Perrow, C. (1984), <i>Normal Accidents: Living with High-Risk Technologies</i> New York: Basic Books |
| Stacey, R. (2012), <i>The Tools and Techniques of Leadership and Management: Meeting the challenge of complexity</i> . London: Routledge |
| Weick, K. (1976), Educational Organizations as Loosely Coupled Systems. <i>Administrative Science Quarterly</i> , Vol. 21, No. 1, (Mar., 1976), pp. 1-19 |

2. Per Andersson, Karolina Muhrman, Linköping University - *Marketization of VET for adults in Sweden (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Marketization of VET for adults in Sweden |
| AUTHOR(S) and AFFILIATIONS |
| Per Andersson, Karolina Muhrman Linköping University, Sweden |
| KEYWORDS (3-5) |
| marketization; adult education; vocational education and training; municipality |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Since the 1990s a marketization process in Swedish municipal adult education (MAE) means that external providers might be contracted to arrange courses. There are decisive differences in this way of applying market principles, compared to the system of independent schools in upper secondary school. Little is known about the present ways of organising vocational adult education (VET) in Swedish municipalities. We will present results from the first two steps in a research project studying the process of marketization of MAE, including MAE VET. We are employing a policy ethnographic approach (cf. Ball, 2006; Beach, 1995; Gustafsson, 2003), focussing the trajectory and transformation of policy, from the central context of influence to the local context of practice.</p> |

In these first steps we aim at providing an overview of how national policy for the organisation of MAE VET is enacted on local level.

The presentation will focus on the following research questions:

- How is vocational adult education organised in different municipalities in Sweden?
- How is educational counselling and quality assurance in vocational adult education organised in different municipalities?
- What character does the marketization of vocational adult education have in different municipalities?
- What differences are there between vocational and other adult education?

METHODS /METHODOLOGY (up to 100 words)

The analysis is based on data from a nationwide survey distributed to representatives for adult education in all Swedish municipalities (N=290), with 164 responses representing 201 municipalities (69%), and 20 interviews with representatives responsible for adult education in different municipalities. The survey data is supplemented by background data from public statistics on the character of the municipalities that provide the basis for some comparisons between different types of municipality, mainly concerning size of population. Based on the background data and the responses to the survey the 20 municipalities for the qualitative interviews were selected.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

MAE VET is rather extensive in Sweden, and most municipalities in Sweden contract external providers for part of their MAE. It is also relatively common that MAE VET is organized as distance courses.

Large organizations and appeals to procurements, short-term contracts that make it difficult to plan, as well as the risk of over-establishment are problems described in the wake of the marketization of MAE VET.

There are also answers that suggest resource shortages in MAE VET, for example problems with recruiting qualified teachers and that there are no resources for students in need of special support.

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3. Christa Tigerstedt, Christel Willför, Arcada University of Applied Sciences - *Work life blogs and podcasts- Insights into Arcada's Toteemi initiative on students' work placement learning and sharing (ENG)*

Arcada is part of the national project Toteemi (<http://www.amktoteemi.fi/>) which focuses on skills validation and more generally on work life skills. As part of the project Arcada has decided to develop the work placement learning for students, co-workers, degree programs and the work life partners. This article is to describe the development project and the initial results.

At Arcada the aim with this project is among other things to replace the traditional, written placement reports with blogging and creation of podcasts for, in firsthand, the business students. The traditional report has not been shared and the new form for reporting would enable the shared learning for students, staff and other stakeholders. We believe that we strongly can learn more if we share. The pilot started with a few student in January and will be tested full scale in April when the placements starts. The students are 2nd and 3rd year business students. Their placement periods are 2x 10 weeks (fulltime work).

Theoretically the article and initiative builds on the ideas of Donald Schön, *Reflection in Action* as well as on more recent research (Beckman et al , 2015, Cornelius et all 2011 etc) emphasizing sharing and collaboration in learning. Support is also found in SITRA's studies on work life skills and the future of work (www.sitra.fi).

The main method used in this development project and study is participant observation by coaching teachers which here includes a systematic analysis of the students contributions in the online environment.

The expected results are: more learning about work life in order to develop the degree program, strengthening the relation to work life and increased learning for the students through reflection and sharing.

Knowledge and Learning Curriculum (paperpresentations)

1. Merja Alanko-Turunen, Haaga-Helia University of Applied Sciences, Helsinki - *Orchestrating an Experience Designer Module – Assessing Competence Development with Company Representatives (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Orchestrating an Experience Designer Module – Assessing Competence Development with Company Representatives |
| AUTHOR(S) and AFFILIATIONS |
| Merja Alanko-Turunen, Haaga-Helia School of Vocational Teacher Education, Haaga-Helia University of Applied Sciences, Helsinki, Finland |
| KEYWORDS (3-5) |
| designing for learning, industry collaboration, experience designer, assessment |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research work in progress |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

The needs of the world of work are continually changing in response to disruptions in business models. The generic/meta competences such as adaptability and complex problem-solving are getting even more important than ever. Companies want to recruit graduates who perform on a high level in a professional environment from the outset. Therefore, HEIs with company collaboration are finding ways to constantly develop curricula to meet these expectations.

The Experience Designer module is a new study unit at the Haaga-Helia UAS. A group of teachers, students and partner companies learn and work together in accordance with service design and design thinking during a whole semester. These partners provide authentic development challenges to the student groups. The main idea is to learn to create customer experiences that truly enhance customers' engagement with the partner companies.

The original service design process (done with students, teachers and alumni) of the ED module produced unique and yet generic core competences the students should develop during their ED studies: empathy, sense making, curiosity, volition and wowness. Versatile assessment approaches are used to provide feedback to the students of their competence development during their studies. The partner companies are involved in the assessment process as well.

This case study focuses on the insights of the partner companies, their role in the ED process in general and in particular as students' competence assessors. I'm interested in finding out how they negotiated their roles as learning resources and facilitators in general and how they found their role as competence assessors in particular - how they understood and interpreted the competence dimensions during students' learning processes.

METHODS /METHODOLOGY (up to 100 words)

This is a case study and the material for analysis will be collected via semi-structured interviews with the company representatives. The analysis method is inspired by a narrative analysis and uses critical incident technique to pinpoint the critical moments in the orchestrating and especially assessing the competences achieved in the to match the competence requirements of the world of work and the competences requirements embedded in the outline of the ED module.

| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
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| <p>This study is work in progress and will provide preliminary results of the narrative analysis. The discussions so far with the company representatives suggest that taking the role of an assessor is demanding. It requires plenty of time to digest and interpret the particular competence requirements set to the ED module. This study will assist in understanding how to design and negotiate the different roles in assessment process in UAS-company collaborations.</p> |
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| REFERENCES |
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2. Sigrun Saur Stiklestad, OsloMet –storbyuniversitetet - *Eldre LHBT-pasienter i møte med den kommunale omsorgstjenesten (NOR)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper-presentasjon |
| LANGUAGE FOR PRESENTATION |
| Norsk |
| TITLE |
| Eldre LHBT-pasienter i møte med den kommunale omsorgstjenesten |
| AUTHOR(S) and AFFILIATIONS |
| Sigrun Saur Stiklestad Førsteamanuensis Institutt for yrkesfaglærerutdanning OsloMet –storbyuniversitetet Pb. 4 St. Olavs plass 0130 Oslo Mail-adresse: sigrst@oslomet.no |
| KEYWORDS (3-5) |
| Fag- og yrkesopplæring, helse- og oppvekstfag, helsefagarbeider, kommunale omsorgstjenesten, eldre LHBT-pasienter (Lesbiske, Homofile, Bifile og Transpersoner) |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Forskning |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| Helse- og oppvekstfag er det yrkesfaglige utdanningsprogrammet med flest søkere, og helsearbeiderfaget det største utdanningsprogrammet (Utdanningsdirektoratet, 2019). Helsefagarbeidere er den største gruppen helsepersonell i den kommunale omsorgstjenesten (Helsedirektoratet, 2017). Verdihetsgarantien (2010) presiserer at eldreomsorgen skal tilrettelegges slik at den bidrar til en verdig, trygg og meningsfull alderdom. Arbeid i helse- og omsorgstjenesten har en normativ side om å gripe inn til pasientens beste (Grimen, 2008). Den praktiske kunnskapsformen 'phronesis', gjerne forstått som praktisk klokskap, omhandler hvordan man bør handle for å oppnå det moralsk gode for mennesker i konkrete situasjoner (eks. Eikeland, 2018). Eldre LHBT-personer har levd sine liv i en tid preget av gjennomgripende endringer i synet på homofili: Fra kriminalisering og diagnostisering til diskrimineringsvern, rettslig likestilling og vigselfrett. Dagens eldre lhbt-generasjon er den første som har opplevd å kunne leve åpent om sin minoritetsstatus. Spesifikke utfordringer for LHBT-personer kan være: Heteronormativitet (Bjørkmann, 2012), minoritetsstress (Brooks, 1981), og at det å vise noen tillit alltid er forbundet med en viss risiko (Levinas, 1972/1993), og risiko for å møte negative holdninger knyttet til ens minoritetsstatus. Problemstillingen i studien er følgende: I hvilken grad innehar den kommunale omsorgstjenesten nødvendig kompetanse for å ivareta eldre LHBT-pasienter? |
| METHODS /METHODOLOGY (up to 100 words) |

Teoretisk studie basert på kvalitativ dokumentanalyse. Tanken er at studien skal være utgangspunkt for en senere empirisk studie med semi-strukturerte intervjuer av LHBT-personer om deres erfaringer som tjenestemottakere i den kommunale omsorgstjenesten.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

LHBT-perspektiv er mangelfullt belyst eller er fraværende i norsk utdanning, både på yrkesfaglærerutdanningen for helse- og oppvekstfag som utdanner helsefagarbeidere, og i helsearbeiderfaget. Nærmere 30 prosent av ansatte i den kommunale omsorgstjenesten er ufaglærte. Helse- og omsorgstjenester er næringen med størst antall sysselsatte innvandrere, hvor flere er sosialisert i land hvor lhbt-personer er kriminalisert, inkludert dødsdom, eller ikke har et diskrimineringsvern. Det gir grunn til å tro at det kan være tilfeldigheter heller enn LHBT-spesifikk kunnskap som preger ivaretakelsen av eldre LHBT-pasienter i den kommunale omsorgstjenesten.

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2. Dorthea Sekkingstad og Ingrid Syse, Høgskulen på Vestlandet - “Skuleleiinga må følgje opp” – kompetanseutvikling gjennom yrkesfaglærarløftet (NOR)

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| Norsk |
| TITLE |
| “Skuleleiinga må følgje opp” – kompetanseutvikling gjennom yrkesfaglærarløftet |
| AUTHOR(S) and AFFILIATIONS |
| Dorthea Sekkingstad og Ingrid Syse, Høgskulen på Vestlandet Dorthea.sekkingstad@hvl.no Ingrid.syse@hvl.no |
| KEYWORDS (3-5) |
| undervisning, vidareutdanning, distribuert leiing, skuleutvikling, lærande organisasjonar |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Lærarar har stor betydning for elevane si læring (Hattie, 2009; Darling–Hammond, 2010). Dette har ført til auka merksemd mot kompetanseutvikling i skulen. Etter ei storstilt nasjonal satsing på kompetanseutvikling retta mot alle lærarar i ungdomsskulen er turen komen til vidaregåande opplæring gjennom «Yrkesfaglærarløftet – for fremtidens fagarbeidere» (KD, 2015). Mens ungdomstrinnsatsinga la til grunn at alle lærarane skulle delta, er det i yrkesfaglærarløftet (YFL) stilt krav om at det skal vere minimum tre lærarar frå kvar skule. Intensjonen er at desse lærarane skal bidra som ressurspersonar inn mot kompetanseutvikling på eigen skule. Det er då interessant å sjå nærare på kva føresetnader som må vera til stades for at desse lærarane kan fungerer som ressurspersonar på eigen skule. Føremålet med denne studien er å få fram kunnskap om korleis skuleleiinga kan fremja kompetanseutvikling gjennom bruk av desse ressurspersonane. Vi spør derfor:</p> <p><i>Korleis kan lærarar som har delteke på ei vidareutdanning i Yrkesfaglærarløftet brukast som ressurspersonar i kompetanseutvikling på eigen skule?</i></p> <p>Empiri vil bli drøfta i lys av teori knytt til distribuert leiing og læring i profesjonsfelleskap der vi tek utgangspunkt i Grønn (2003) og Huber (2011, 2013).</p> |
| METHODS /METHODOLOGY (up to 100 words) |

Vi har gjennomført ein kvalitativ studie der empiri er henta inn gjennom fokusgruppeintervju (seks grupper) med lærarar/studentar som har delteke på ei vidareutdanning i Yrkesfaglærløftet. I tillegg har vi gjennomført fokusgruppeintervju med skuleleiinga på deltakaraskulane (fem grupper). Dermed byggjer empirien på både eit student-/lærarperspektiv og eit leiarperspektiv. Meiningsfortetting og koding har blitt gjort i tråd med etablert forskingspraksis (Coburn & Turner, 2011; Thagaard, 2018). Desse tre hovudkategoriane utkrystalliserte seg i materialet vårt: 1) Innhald og organisering av vidareutdanninga, 2) rekruttering av deltakarar, og 3) oppfølging på eigen skule etter avslutta vidareutdanning.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Funna våre indikerer at rekruttering av deltakarar og innhaldet og organiseringa av vidareutdanninga bidreg til å fremje læring for deltakarane. Vidare ser rekruttering av deltakarar ut til å ha betydning når det gjeld ringverknader i dei ulike team og avdelingar på skulen. Hovudfunnet vårt er at korleis skuleleiinga legg til rette for at deltakarane skal kunne bidra som ressurspersonar etter avslutta vidareutdanning, er avgjerande. Skuleleiinga må forplikte seg og vere leiingar for kompetanseutviklinga. Dei må etterspørje ressurspersonane sin kompetanse, gje dei oppgåver og fullmakter og etablere gode rammer for kompetaseutviklinga. Dette føreset eit tett samarbeid med ressurspersonane.

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Knowledge and Learning Curriculum (paperpresentations)

1. Kaia Mobråten, OsloMet - Utdanning for bærekraftig utvikling i yrkesfaglærerutdanningen (NOR)

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Paper

LANGUAGE FOR PRESENTATION Norsk eller engelsk

TITLE Utdanning for bærekraftig utvikling i yrkesfaglærerutdanningen

AUTHOR(S) and AFFILIATIONS Kaia Mobråten kaim@oslomet.no OsloMet-Storbyuniversitetet

KEYWORDS (3-5) Bærekraftig utvikling, matsvinn, råvarekunnskap, undervisning

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) Work in progress

FRAMING (General description, research questions, theoretical framework) (up to

200 words) I en verden som preges av klimaendringer står bærekraftig utvikling

sentralt. Bærekraftig matproduksjon og matsvinn er en del av dette, og med tall som

viser at en tredjedel av all maten som produseres i verden blir kastet er dette noe det

bør fokuseres på også i skolen. Med innføring av nye lærerplaner og ny overordnet del

høsten 2020 blir bærekraftig utvikling løftet frem som et av tre tverrfaglig temaer som

skal prege alle fagene i skolen. Utdanning for bærekraftig utvikling er undervisning som

er lagt opp slik at elevene skal få utvikle kompetanser som anses som sentrale for å

leve og handle for en mer bærekraftig verden. Denne studien belyser hvordan man kan

undervise i restaurant- og matfag for å ivareta dette.

METHODS /METHODOLOGY (up to 100 words) Empirien i studien er hentet fra

refleksjonsnotater som er skrevet av førsteårsstudenter på yrkesfaglærerutdanningen i

restaurant- og matfag ved OsloMet- Storbyuniversitetet. Det er også gjort kvantitative

intervjuer blant lærere i den videregående skole. Denne studien tar sikte på å

undersøke følgende problemstillinger: Hvilke holdninger har yrkesfaglærerstudenter i

restaurant- og matfag til matsvinn, og på hvilke måter tenker studentene at deres holdninger er relevante i rollen som yrkesfaglærer? Studien belyser også hvordan vi kan lage gode undervisningsopplegg om matsvinn og bærekraft, med synspunkter både fra yrkesfaglærerstudenter i restaurant- og matfag, og fra lærere i videregående skole som underviser på restaurant- og matfag.

EXPECTED OUTCOMES/RESULTS (up to 100 words) Foreløpige resultater viser at dagens studenter er bevisste på hvor mye mat de kaster, og at deres holdninger kommer dels fra jobberfaringer i bransjen, men også fra det økte fokuset på dette i samfunnet. Resultatene viser også at råvarekunnskaper blir ansett som det viktigste fokusområdet i en undervisning som fokuserer på bærekraft innen restaurant- og matfag. Ved å ha kunnskaper om råvarene vil fremtidens fagarbeidet lettere kunne anvende råvarene til nye retter og produkter, samt utnytte hele råvaren bedre. Denne studien vil gi nyttig informasjon om hva både studenter og lærere anser som viktige kunnskaper innen området bærekraft og matsvinn og den vil gi lærere og andre interesserte innspill til hvordan man kan undervise i disse temaene.

2. Nina Marie Storborg - en casestudie av yrkesfaglæreres vurderingspraksiser i verksteder og arbeidsplassrelaterte undervisningsarenaer (NOR)

Dette paperet presenterer en casestudie av yrkesfaglæreres vurderingspraksiser i verksteder og arbeidsplassrelaterte undervisningsarenaer. Studien bidrar til å utvikle kunnskap om og å få en dypere forståelse for yrkesfaglærernes vurderingspraksiser.

Forskningsprosjektet rammes inn av teorien om praksisarkitektur (Kemmis et al., 2014) , en praksisteori som bygger på et intersubjektivitisk ståsted. Teorien legger vekt på kulturelle-diskursive arrangementer («sayings»- det yrkesfaglærerne sier til elevene), materielle- økonomiske arrangement («doings»- det yrkesfaglærerne gjør i forhold til elevene) og sosiale -politiske arrangementer («relatings» - yrkesfaglærernes relasjoner til elevene).

Teorien om praksisarkitektur bidrar til å forstå og konkretisere yrkesfaglærernes vurderingspraksiser og kunne analysere sammenhenger mellom deres praksis og konteksten de arbeider i, og teorien bidrar til å synliggjøre hva som muliggjør og begrenser yrkesfaglærernes vurderingspraksiser.

Forskningsprosjektet vil beskrive og analysere yrkesfaglærernes vurderingspraksiser ut fra tidligere forskning på formativ vurderingspraksis (Black & Wiliam, 2009), som viser at vurderingspraksiser først er formative når elevene har klart å bruke tilbakemeldingene for å forbedre sin egen læring.

Data er innhentet ved å observere og gjøre video-opptak av yrkesfaglærere fra fire utdanningsprogram ved tre videregående skoler. Etter observasjonene vart video-opptakene brukt som grunnlag for refleksjon med yrkesfaglærerne (Powell, 2005). Video-klipp og refleksjonssamtalene analyseres med utgangspunkt i «sayings», »doings» og «relatings» (Mahon, Kemmis, Francisco, & Lloyd, 2017). Foreløpige funn viser at yrkesfaglærerne er tydelig på å tilpasse vurderingene til hver enkelt elev og å forberede elevene på framtidig yrkesrolle. Dette kommer fram i video-opptak, hvor vi ser at yrkesfaglæreren konkret viser og gir tilbakemeldinger på utført arbeid til enkeltelever, hvor han/hun begrunner ut fra elevens framtidige yrkesrolle. Dette bekreftes i samtaler med yrkesfaglærerne. Andre funn handler om relasjonsbygging og hvordan yrkesfaglærerne arbeider med dette (Skaalvik & Skaalvik, 2018).

Analyse av datamaterialet vil gjøres ferdig i løpet av våren 2019.

Presentasjonen vil diskutere funn ut fra teorien om praksisarkitektur (Kemmis et al., 2014).

Black, P., & Wiliam, D. (2009). Developing the Theory of Formative Assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5-31. doi:10.1007/s11092-008-9068-5

Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014). *Changing practices, changing education*. Singapore: Springer.

Mahon, K., Kemmis, S., Francisco, S., & Lloyd, A. (2017). Introduction: Practice Theory and the Theory of Practice Architectures. In K. Mahon, S. Francisco, & S. Kemmis (Eds.), *Exploring Education and Professional Practice* (pp. 1-31). Singapore: Springer.

Powell, E. (2005). Conceptualising and facilitating active learning: teachers' video - stimulated reflective dialogues. *Reflective Practice*, 6(3), 407-418. doi:10.1080/14623940500220202

Skaalvik, E. M., & Skaalvik, S. (2018). *Skolen som læringsarena : selvsoppfatning, motivasjon og læring* (3. utg. ed.). Oslo: Universitetsforlaget.

3. Heta Rintala & Petri Nokelainen, Tampere University - Vocational education and the learning curriculum at work (ENG)

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Paper |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Vocational education and the learning curriculum at work |
| AUTHOR(S) and AFFILIATIONS |
| Heta Rintala Tampere University Faculty of Education and Culture |
| Petri Nokelainen Tampere University Faculty of Education and Culture |
| KEYWORDS (3-5) |
| Vocational education, workplace learning, curriculum, student experiences |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| This study aims to contribute to an understanding of the integrated and structured nature of workplace learning experiences and how these might differ across VET pathways, occupational fields and workplace settings. Even outside of education systems, learners' experiences in attempting to achieve full and effective work performance are more or less intentionally organised, with this being referred to as a learning curriculum (Lave and Wenger 1991) or a workplace curriculum (Billett 2006, 2011). Often, within this sequencing of activities, i.e., a workplace curriculum, supporting learning processes and outcomes includes the rationale of movement from activities with low accountability levels, error costs and standing to tasks of higher accountability and standing (Billett 2006). This view on the curriculum is based on participation, and thus, this study takes a position in a socio-cultural paradigm and emphasizes the importance of context, culture and the social aspects of learning (Lave and Wenger 1991; Billett 2004). The aim of this study is to better understand the integration and structuring of workplace learning from the viewpoint of VET students. This study addresses the following research question: How are the experiences in the workplace integrated into education and enacted at work? |
| METHODS /METHODOLOGY (up to 100 words) |
| This study focuses on three vocational upper secondary qualifications: vocational upper secondary qualification in social and healthcare, vocational upper secondary qualification in construction and vocational upper secondary qualification in business and administration. The sample of this study consisted of 33 participants, of which 15 were apprentices and 18 were students in school-based VET. The data consisted of semi-structured interviews that were thematically analyzed. |

EXPECTED OUTCOMES/RESULTS (up to 100 words)

It was found that a given vocational pathway shapes the learning process by providing regulations and experiential ordering. Based on this study, apprenticeship training and school-based VET cannot be considered parallel routes regarding learning experiences. This implies that the flexible combination of these pathways, as promoted in the reform of VET, is not without challenges because the learner is put in different positions in each of these pathways. However, the experiences from the construction sector suggested that learning experiences are often shaped by work, despite different vocational pathways. As a result, learning can be extremely dependent on the learner.

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Knowledge and Learning Curriculum (workshop) room PRAKTICUM (opposite building)

1. **Virve Vainio, Marja Brandtberg, Kari Viinisalo - Discussing learning processes and collaboration practices between school and workplace (ENG)**

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Workshop |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Discussing learning processes and collaboration practices between school and workplace |
| AUTHOR(S) and AFFILIATIONS |
| Virve Vainio, Marja Brandtberg, Kari Viinisalo virve.vainio@haaga-helia.fi , marja.brandtberg@haaga-helia.fi , kviinisalo@gmail.com |
| KEYWORDS (3-5) |
| collaboration practices, co-planning, work place learning, productive learning |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| development |

FRAMING (General description, research questions, theoretical framework) (up to 200 words)

An overview of the guidance in the context of vocational education and training adduces that:

...."the integration of formal and informal learning requires close collaboration between various actors in vocational education. Moreover, guidance associated with training calls for collaboration between teachers, students and employers, which facilitates subsequent professional development".
(Mikkonen et al 2017)

According to the Reform of vocational upper secondary education 2018 in Finland vocational schools are expected to respond more smoothly to the swift changes of the working life. Competence based vocational education requires also individual study paths to ensure productive learning, it should be planned and implemented in collaboration with employers.

To paraphrase Tuomi-Gröhn, Engeström et al (2007):

- There is a need for collaborative planning for practice-driven learning processes and construction of visions for the future
- There is a need for transforming vocational education to subsume negotiations between teachers and representatives of workplaces

In this workshop we will focus on following questions:

- 1) Who is in charge of taking the first step and making the first efficacious act for collaboration?
- 2) Who are involved in the planning of the learning/teaching process
 - are the relevant people involved?
- 3) How do the potential significant objectives be adjusted to one shared goal
 - is it possible to achieve a win-win-win –result between the student, teacher/school and employer?

METHODS /METHODOLOGY (up to 100 words)

The workshop can be organized in Yrkesinstitut Prakticum in the authentic location of vehicle mechanic (near Arcada).

We are going to have participants from

- workplaces (technical field)
- basic schools
- vocational institutes
- teacher education (academic and vocational)
- university research

In the workshop we apply a fishbowl technique. The small group of work place representatives starts discussion surrounded by other participants observing without

interrupting. After that there is room for others to raise questions or give comments. There will be a person who facilitates the process.

As mirror material we'll be using the outcomes of the formerly implemented project (Vainio&Viinisalo 2017) and of the workshop held with Ann Karin Sandal in NordYrk Oslo 2018 (Finnish and Norwegian visions of co-planning in work place learning).

EXPECTED OUTCOMES/RESULTS (up to 100 words)

A model for researching and developing the negotiation practises between school and workplace in order to utilize the workplace learning potential and ensure productive learning.

The outcomes emerging from this workshop will be used in our coming pedagogical interventions within the field of work-based learning to develop vocational teacher education.

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Tuomi-Gröhn, T 2007. Developmental Transfer as a Goal of Collaboration between School and Work. An International Journal of Human Activity Theory No. 1 2007 Pp. 41-62. The Center for Human Activity Theory, Kansai University.

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Posterpresentations

- 1. Anu Grönlund, Maria Grotell, Arcada University of Applied Sciences - *The role of interprofessional learning & simulation pedagogy: Preparing future home-care nurses for the demands of working life (The NURED Project)***

PRESENTATION FORMAT (Paper, poster, workshop or symposium) Poster

LANGUAGE FOR PRESENTATION English

TITLE The role of interprofessional learning & simulation pedagogy: Preparing future home-care nurses for the demands of working-life (The NURED Project)

AUTHOR(S) and AFFILIATIONS Grönlund, Anu; Grotell, Maria / ARCADA UAS, The NURED Project (funded by: EU Interreg Central Baltic)

KEYWORDS (3-5) Interprofessional education, Nursing, Baltic Sea Region, Teamwork, Development

TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS)

Development – on-going until 30.11.2019

FRAMING (General description, research questions, theoretical framework) (up to 200 words) The rapidly increasing amount of ageing population creates

increased demands and challenges for home care services in Finland, as well as elsewhere in the Baltic Sea Region. NURED, a EU-funded project, aims to improve the curricula in home-care nursing in the Baltic Sea Region through cross-border co-operation (Finland, Sweden, Estonia & Latvia). The purpose of NURED is to develop two curricula (16 ECSS SP, EQF levels 5 & 6) for home-care nurses/nurses in the Baltic Sea Region. The overall goal of the project is to improve professional skills, teamwork and stress management, as well as other work management related skills and knowledge for their future profession. By these actions and improvements, the home care nurse/nurse students and future workers will be better prepared to offer good service for end-users and to meet working-life demands in the Baltic Sea Region countries. Lead partner Arcada UAS (FIN) has had the main responsibility of creating the 5ECTS module regarding teamwork and professional skills, and this work is what we wish to focus on at NORDYRK 2019. The theoretical framework is interprofessional education, which occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes. Interprofessional education is a necessary step in preparing nursing professionals to be better prepared to respond to local health needs.

METHODS /METHODOLOGY (up to 100 words) The students learn with and from each other through shared experiences. Peer learning is an educational practice in which students interact with other students to attain educational

goals. Simulation pedagogy is also used as a method to enhance competences in interprofessional teamwork and peer learning.

EXPECTED OUTCOMES/RESULTS (up to 100 words) The expected outcome of NURED as a whole is improved curricula for nursing students, as well as a broader base of knowledge and better working-life skills (teamwork, stress- and time management, IT-skills) for future home-care nurses in the Baltic Sea Region. Further, NURED expects to improve education efficiency by ICT-based solutions (distance learning). NURED also aims to reduce the amount of educational drop-outs, and improve attractiveness of HCN/nurse education in the Baltic Sea Region.

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2. **Mervi Hernberg, Camilla Wikström-Grotell, Arcada University of Applied Sciences - Arcada coaching clinic – to develop an entrepreneurial learning culture and environment from a student perspective (ENG)**

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| PRESENTATION FORMAT |
| Poster |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| ARCADA COACHING CLINIC – TO DEVELOP AN ENTREPRENEURIAL LEARNING CULTURE AND ENVIRONMENT FROM A STUDENT PERSPECTIVE |
| AUTHOR(S) and AFFILIATIONS |
| Mervi Hernberg Arcada UAS, Camilla Wikström-Grotell Arcada UAS |
| KEYWORDS (3-5) |
| Intrapreneurship, entrepreneurship, work life competences and skills |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Development |
| FRAMING (GENERAL DESCRIPTION, RESEARCH QUESTIONS, THEORETICAL FRAMEWORK) |
| Digitalization and globalization mean that future working life places new demands on both generic and professional skills, especially because working life is changing rapidly. Both within the EHEA (European Higher Education Area) and in the national higher education policy discussion, the importance of developing competence in entrepreneurship, being prepared to act as an entrepreneur and creating one's own work possibilities is emphasized. Entrepreneurship within professional higher education can be examined at different levels and from different perspectives. The approach of our development project is a broad view of entrepreneurship as internal entrepreneurship or intrapreneurship. The goal is therefore to go beyond skills needed to run a business. It is about students learning to develop an idea, product or service so that it creates economic, social or cultural benefits or values. This sub-project is part of creating an innovative learning culture in a professional UAS in collaboration with working life. The purpose is to develop and evaluate an activity-based learning environment (Arcada Coaching Clinic) and a model for coaching that supports self-directed learning. The focus is on the student's individual competence development and future generic work life competencies such as, entrepreneurial thinking, driving force, innovation ability, self-leadership and change preparedness. |
| METHODS /METHODOLOGY |
| The project is a "learning by doing" project, where students and teachers / coaches together develop and evaluate the concept for Arcada Coaching Clinic through cases that are analyzed during theme days, workshops and study visits to entrepreneurial environments in both Finland and Denmark. The conceptualization process utilizes the SRINT method: a 5-day process for employing critical questions through design, prototyping and testing. During an intensive week, the |

students act as active agents who gather experiences that are used systematically in the development of the new innovative learning environment.

EXPECTED OUTCOMES/RESULTS

A concept for coaching that supports self-directed learning and internal entrepreneurship among students has been developed and taken into pilot use. Arcada Coaching Clinic starts its activities in the autumn of 2019 and an increased number of teachers and researchers work as coaches. The cross-disciplinary and industry-wide collaboration within Arcada has been strengthened and enables new forms of cooperation for development and innovation in collaboration with various types of organizations and companies.

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Pitkänen, E., Lempinen, P. & Vainio, E., 2019. Innovaatioita ja osaamista työelämään. Tutkimus-, kehittämis- ja tutkimustoiminta ammattikorkeakouluissa. Ammattikorkeakoulujen rehtorineuvosto Arene ry. <http://www.arene.fi/ajankohtaista/innovaatioita-uusia-tuotteita-ja-yhteiskunnallisia-palveluita-ammattikorkeakouluista/>

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3. Anders Grydeland, OsloMet - *Social competence, the silent quality of technical and industrial production (NOR)*

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster |
| LANGUAGE FOR PRESENTATION |
| Norsk |
| TITLE |
| Social competence, the silent quality of technical and industrial production |
| AUTHOR(S) and AFFILIATIONS |
| Anders Grydeland (angry@oslomet.no) |
| KEYWORDS (3-5) |
| Social competence, quality, Teknikk og industriell produksjon |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Research |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Quality in the technical and vocational education and training in Norway was put on the agenda with the official Norwegian reports (NOU 2002: 10, 2002; NOU 2003: 16, 2003) followed by whitepaper 31 (Kunnskapsdepartementet, 2008). The work is thorough but lack a clear definition of what quality in education is, instead the reports and the whitepaper identify indicators of quality (Deichman-Sørensen, 2007). Structural quality, process quality and result quality are defined as quality areas (NOU 2002: 10, 2002) which the Educational Directorate linked to 13 indicators of quality in their description of a quality assesment systems for school and learning companies within vocational education and training (Utdanningsdirektoratet, 2014).</p> <p>Companies in the area of Techical and industrial productions often uses standards from the Internation Organization for Standardization (ISO), and they have a quite clear definition of quality: "a set of features and properties of a product or service that has the product or service's ability to meet explicit or implied needs" (NS-ISO 5127: 2001, 2015).</p> <p>The research question in this paper is "What is quality in TIP training in the tension field between school and enterprise?", Operationalized with the research questions:</p> <ul style="list-style-type: none"> - What importance does social competence have for quality in the TIP training? - What importance does professional competence have for quality in the TIP training? <p>I will argue that social competence is a important learning and working life competence in a future perspective, and might cause a challenge for professional education.</p> <p>The empirical data has been analysed using theory of social competence (Spurkeland, 2012) and existential pedagogy (Bay, 2005).</p> |
| METHODS /METHODOLOGY (up to 100 words) |
| The article is founded on a survey based on five exploratory, qualitative |

Interviews of practitioners in vocational and vocational training. Literature from method theories is central. My own understanding of the problem field is also included in the method.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The article's analysis of the collected data suggests three main findings:

- Training offices and apprenticeship placements in enterprises have different contacts with the county
- There are challenges with the apprenticeship survey from The Directorate of Education and Training
- Social competence is a key competence in vocational education and training

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4. Tore Ståhl, Arcada University of Applied Sciences - *Epistemic beliefs and field of study (ENG)*

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Epistemic beliefs and field of study |
| AUTHOR(S) and AFFILIATIONS |
| Tore Ståhl |
| KEYWORDS (3-5) |
| Epistemic beliefs, domain, professional education |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Has ubiquitous access to information changed the way young individuals regard knowledge and learning? Can we describe this change in terms of so-called epistemic beliefs?</p> <p>According to a line of research initiated by Schommer (1990), epistemic beliefs can be regarded as a set of dimensions describing different aspects of knowledge, such as knowledge being simple or stemming from an omniscient authority. Attempts have been made to develop the instrument (Wood, Kardash, 2002, Schraw, Bendixen & Dunkle, 2002, Moschner et al., 2005) and there has been discussion about the domain-specificity of epistemic beliefs (Muis, Bendixen & Haerle, 2006, Trautwein, Lüdtke, 2007, Aditomo, 2018). In a recent study, new dimensions were suggested for capturing beliefs about internet-based information (Ståhl, submitted).</p> <p>Epistemic beliefs are assumed to develop from naïve to sophisticated, but they can also change through intervention (e.g. Kienhues, Bromme & Stahl, 2008).</p> <p>Grossnickle Peterson, Alexander & List (2017) introduced epistemic competence as the ability to identify the appropriate justifications for the task at hand. Aditomo (2018) suggested that the development from naïve to sophisticated is perhaps not linear but that the appropriate level of sophistication for each dimension may vary depending on context, topic and study level.</p> |

METHODS /METHODOLOGY (up to 100 words)

New students' epistemic beliefs were measured using an extended instrument, partly based on previous instruments. The new instrument contained four previously described dimensions (Structure of knowledge, Certainty of knowledge, Learning ability and Omniscient authority) and was extended with three new dimensions describing a constructivist approach to learning, learning by dialogue and a reliance on internet-based information (Ståhl, submitted). The instrument was presented as a web questionnaire with 60 statements on a 6-point Likert-type scale. Data were factor analysed to create the seven dimensions and to calculate the factor scores that were compared across different groups using One-way Anova.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

For four of the seven dimensions, the factor scores expressing the epistemic beliefs differed significantly ($2.02 < F < 2.56$, Sig. $< .05$) across the degree programmes. Students having different epistemic mind-sets before they even entered the university is an interesting finding in itself, but the findings may have consequences also for educational practice. Identifying the new students' epistemic profiles may enable choosing interventions to change their mind-sets towards a more appropriate epistemic competence. Further, acknowledging the level of sophistication for each dimension for the current context, topic and study level may support the teacher in choosing the appropriate epistemic level and learning activities.

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5. **Ilkka Väänänen, Paula Harmokivi-Saloranta, Marja Lenna Kukkurainen, Anssi Mikkola, Ahti Romo, Sirpa Varajärvi, Lahti University of Applied Sciences - *Work ability and productivity coaching at work life as a three level learning process to respond to the challenge of employment and labour mobility (ENG)***

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| WORK ABILITY AND PRODUCTIVITY COACHING AT WORK LIFE AS A THREE LEVEL LEARNING PROCESS TO RESPOND TO THE CHALLENGES OF EMPLOYMENT AND LABOUR MOBILITY |
| AUTHOR(S) and AFFILIATIONS |
| Väänänen Ilkka, Lahti University of Applied Sciences Harmokivi-Saloranta Paula, Lahti University of Applied Sciences Kukkurainen Marja Leena, Lahti University of Applied Sciences Mikkola Anssi, Lahti Region Educational Consortium Romo Ahti, Päijät-Häme Regional Sport Association Varajärvi Sirpa, Lahti University of Applied Sciences |
| KEYWORDS (3-5) |
| Workplace learning, technology industry, coaching model |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Development |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>The purpose of this presentation is to reveal the Work Ability and Productivity Coaching (WAPC) model as a competence based learning process of working life to respond to the future challenges of employment and labour mobility in machine and metal products industry. The WAPC was developed to improve productivity by promoting employee health, physical work ability and self-management skills as well as working capacity management within the organisation based on two theoretical framework models: the personnel productivity (Aura et al. 2015), and the work ability ‘house’ (Lundell et al. 2011).</p> <p>The WAPC paid attention to the individual, community and enterprise levels and we used usability testing as a user-centered interaction design experiment to evaluate WAPC by piloting it in five SMEs. The testing pilots</p> |

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| <p>were planned together with the enterprises following the continuous development process tradition.</p> |
| <p>METHODS /METHODOLOGY (up to 100 words)</p> |
| <p>Nearly two hundred employees participated to the testing pilots. The content of the WAPC focused on physical work capacity, nutrition, workload and recovery, and on the productivity and management of well-being at work. To assess the work capacity of the participants the physiological measurements were performed twice. The assessment of the physical ergonomics, as working positions and methods, and their effects on the physical load on one's musculoskeletal system was performed. Cognitive ergonomics were discussed during the coaching as well as organisational. Factors were compiled together and utilised in subsequent coaching meetings with the management and employees of the enterprises.</p> |
| <p>EXPECTED OUTCOMES/RESULTS (up to 100 words)</p> |
| <p>It is possible to respond to the future challenges of employment and labour mobility at the enterprise level by developing the entire organisational culture and constructing theoretical, practical, self-regulative, and socio-cultural learning environments. WAPC is a circular and community-oriented learning process based on continuous development and assessment. In addition to measurements and participatory workshops, it involves reviewing and developing highlighted work ability and productivity issues and experimenting with them. WAPC is based on the scalability, systematic approach, proportionality, contextuality and participation. It can help in achieving direct and indirect effects on social and cultural sustainability and non-discrimination.</p> |
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6. Denice Haldin, Carina Kiukas, Camilla Wikström-Grotell, Arcada University of Applied Sciences - *A collective framework for supporting innovative competence in professional higher education – a social and health care context (ENG)*

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| PRESENTATION FORMAT |
| Poster |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| A COLLECTIVE FRAMEWORK FOR SUPPORTING INNOVATIVE COMPETENCIES IN PROFESSIONAL HIGHER EDUCATION – A SOCIAL AND HEALTH CARE CONTEXT |
| AUTHOR(S) and AFFILIATIONS |
| Denice Haldin, Carina Kiukas, Camilla Wikström-Grotell, Arcada University of Applied Sciences |
| KEYWORDS (3-5) |
| group-tutoring model, innovation competence, teacher dispositions |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) |
| <p>Professional Higher Education (PHE) is characterized by its bridges to society, employment as well as knowledge production as lined out in the European higher education modernization agenda. Demographic changes and future social and health care needs require higher demands on graduated students' competencies. PHE should contribute in a more comprehensive way to innovative practice in working life. It is therefore crucial to include competencies related to innovation and service design. We have identified a group-tutoring model as one way to support innovative thinking among students.</p> <p>This paper highlights a model for group tutoring and supervision, used to facilitate students' process towards their bachelor thesis. The bachelor thesis process takes place in close collaboration between the University of Applied Sciences (UAS) and working life. This enables development of students' innovation competence needed in the future.</p> <p>Furthermore, the aim was to explore the role of the teachers in research and development projects carried out as bachelor thesis in regional projects within working life.</p> |
| METHODS /METHODOLOGY |
| <p>A new model for group-tutoring and supervision of 6-10 students led by two teachers was developed and evaluated through narratives (teachers), focus group discussions (teachers and students) and ordinary course evaluation (students). The tutorials entailed a structured three-phase thesis process, a pedagogical agreement between students and teachers and group coaching support for the teachers involved in the project. Furthermore, degree projects carried out 2017-2018 within the Department of Health and Welfare at Arcada UAS were analyzed descriptively in order to explore the connection to working life and the innovative approach.</p> |
| EXPECTED OUTCOMES/RESULTS |
| <p>The group-tutoring model support new initiatives to involve working life in bachelor thesis project. The three-phase model have given the thesis process a structure that helps</p> |

student to complete their thesis within the expected timeframe. The preliminary results show that this process model where students and supervisors in close connection with the working life has potential to enhance student's innovative thinking and competencies. Six different teacher dispositions: coach, mentor, facilitator, supervisor, partner in a network and study designer were found in the material and reflected upon.

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7. Anne Kokko, Marina Arell-Sundberg, Arcada University of Applied Sciences-
*Simulation enhance competence in inter-professional communication and
collaboration among occupational and physical therapy students (Toteemi
project) (ENG)*

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster presentation |
| LANGUAGE FOR PRESENTATION |
| English |
| TITLE |
| Simulation enhance competence in inter-professional communication and collaboration among occupational and physical therapy students |
| AUTHOR(S) and AFFILIATIONS |
| Anne Kokko, PT, MSc , Marina Arell-Sundberg, OT, Toteemi Project |
| KEYWORDS (3-5) |
| Simulation, Inter-professional Collaboration, Physiotherapy students, Occupational Therapy students |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Development |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>By facing working-life demands of competences in inter-professional communication and collaboration, the Occupational Therapy and Physiotherapy programs at Arcada UAS started with common case-based simulation education. We chose the case together with professionals from working life.</p> <p>Aim of this project was to increase OT and PT students' competency and understanding of interdisciplinary teamwork.</p> <p>Chosen case was "home assessment" within rehabilitation course. Prior simulation the students had needed theoretical knowledge and got time to prepare together. The students were divided into small inter-professional groups and the process were subdivided into small sessions. OT and PT students worked together but had tasks and roles of their own. During the simulation, the students made observations and after every session, the whole group was activated during the debriefing.</p> <p>Post-simulation, the students reflected upon their competency, attitudes and roles via discussion and feedback form.</p> |

METHODS /METHODOLOGY (up to 100 words)

The project group was 60 first year Occupational Therapy and Physiotherapy students. By using a feedback form, we collected the information of the students' perception of their competency, attitudes and roles about interdisciplinary teamwork after the simulation. The feedback form included criteria from the course competency and learning outcomes and were analyzed by content analyzing.

EXPECTED OUTCOMES/RESULTS (up to 100 words)

According to the feedback, the students appreciated this learning experience and will implement the inter-professional working model into practice. They understood the inter-disciplinary teamwork as an essential part of a client-centered way of working.

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- 8. Christel Holmlund-Norrén, Harriet Bystedt, Kim Vesterbacka, Yrkesakademin i Österbotten - *Lotslärande – kollegialt stöd för yrkeslärare (SWE)***

| |
|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster of work in progress |
| LANGUAGE FOR PRESENTATION |
| Swedish |
| TITLE |
| LOTSLÄRARE - KOLLEGIALT STÖD FÖR YRKESLÄRARE |
| AUTHOR(S) and AFFILIATIONS |
| Christel Holmlund-Norrén, Harriet Bystedt och Kim Vesterbacka |
| KEYWORDS (3-5) |
| Reform, kollegialt stöd, yrkesutbildning |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Work in progress |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>Nätverksprojektet Bästa Kunnande ska stöda den undervisande och handledande personalens kompetensutveckling när yrkesutbildningens verksamhetsmiljö ändrar efter att den nya lagen om yrkesutbildning togs i bruk 1.1.2018 i Finland. Den undervisande och handledande personalens kompetensbehov utreddes nationellt och presenteras i rapporten "Mod att förnya". Kompetensbehoven är</p> <ol style="list-style-type: none"> 1)Handledning i den personliga utvecklingsplanen för kunnande 2)Arbetslivs-, nätverks- och kundkompetens 3)Handledningskompetens 4)Nya sätt och möjligheter att lära 5)Självledarskap och utveckling av det egna arbetet 6)Utbildningsanordnarens kvalitetsledningssystem, <p>För att stöda personalen i kompetensutvecklingen har en lotslära-modell för kollegialt stöd utvecklats inom nätverket Bästa Kunnande. Lotslära-modellen är en kollega som stöder andra kollegor i frågor om den nya yrkesutbildningen. Lotsarna ska vara lättillgängliga och det ska vara låg tröskel för personalen att ta kontakt med en lots. Lotsarna deltar också tillsammans med förman i möten där de informerar om aktuella saker för personalen. Förman och lotsen utgör ett arbetspar som stöder varandra.</p> <p>Den fråga som Yrkesakademin i Österbotten under 2019 söker svar på är följande:</p> <ul style="list-style-type: none"> • Vilket mervärde ger lotslära-verksamheten med 14 lotsar för den undervisande och handledande personalens kompetensutveckling vid Yrkesakademin i Österbotten? |
| METHODS /METHODOLOGY (up to 100 words) |

Yrkesakademin i Österbotten piloterar under tiden oktober 2018-december 2019 lotsläroanordnaren genom att ha 14 utsedda lotsläroanordnare inom olika utbildningsområden som en av läroanstaltens strategiska tyngdpunkter. Lotsläroanordnaren utvärderas regelbundet av både lotsar och ledningen för Yrkesakademin i Österbotten. Lotsarna möts regelbundet för utbildning och diskussion om aktuella teman inom yrkesutbildningen som lotsarna har fått frågor om av den övriga personalen i. Lotsläroanordnaren har presenterats vid två fortbildningsdagar för hela personalen och vid dessa tillfällen har personalens synpunkter på verksamheten samlats in för att vidarebearbetas. Som metod för sammanställning av personalens åsikter om verksamheten används innehållsanalys. Vid fortbildningsdag har lotsarna presenterat olika modeller, som yrkesläroanordnare och handledare kan använda i arbetet, och som Bästa kunnande nätverket har gjort. Den här verksamheten har också utvärderats, men resultaten har inte ännu sammanställts (fortbildningsdagen hölls 22.2.2019).

EXPECTED OUTCOMES/RESULTS (up to 100 words)

Erfarenheter av lotsläroanordnaren i en finlandssvensk yrkesläroanordnare. Verksamheten förväntas ge svar på frågan vilket mervärde lotsläroanordnaren i form av kollegialt stöd har för personalens, och i första hand yrkesläroanordnarens, kompetensutveckling. Piloteringen eftersträvar också en erfarenhetsbaserad modell för lotsläroanordnaren som kan spridas till övriga finlandssvenska utbildningsanordnare.

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9. **Camilla Björk-Åman, Kristina Ström, Åbo Akademi - *Right to learn – skills to teach / Rätt att lära – förmåga att undervisa, utvecklingsprojekt inom lärareutbildningen (SWE / ENG)***

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|---|
| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster |
| LANGUAGE FOR PRESENTATION |
| Swedish and English (same poster x2 in different languages) |
| TITLE |
| Right to learn – skills to teach/Rätt att lära – förmåga att undervisa, utvecklingsprojekt inom lärarutbildningen |
| AUTHOR(S) and AFFILIATIONS |
| Camilla Björk-Åman, PeD, universitetslärare; Kristina Ström, professor, Åbo Akademi |
| KEYWORDS (3-5) |
| Developmental project, VET, special needs |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| Development project |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| <p>I och med finländska yrkesutbildningsreformen (2018) samt förnyade gymnasielagen (2019) finns ett behov att utveckla lärares kunskaper gällande särskilt stöd (specialpedagogiska arrangemang) och handledning. Projektet <i>Rätt att lära – förmåga att undervisa</i> genomförs i samarbete med nio lärarutbildningsenheter: Häme University of Applied Science koordinerar projektet. Projekttiden är 1.10.2018-30.9.2021. Projektet är inriktat på andra stadiets utbildning dvs. yrkesutbildning och gymnasium.</p> <p>En målsättning i den finländska yrkesutbildningen är att kunna erbjuda utbildning åt hela årskullen av ungdomar, yrkesutbildningen behöver därmed vara inkluderande. I den nya gymnasielagen betonas studerandes rätt till specialundervisning vilket kan antas främja inkludering även i denna utbildningsform. Under de senaste två decennierna har innebörden i begreppet inkludering vidgats från en fokusering på enskilda elever med särskilda behov, till en fokusering på skolornas förmåga att möta mångfald (Kiuppis, 2014; Jahnukainen, 2015)</p> <p>Projektet <i>Rätt att lära – förmåga att undervisa</i> går i linje med inkluderande utbildning. Målsättningen är att 1. genom användning av forskningsbaserade metoder utveckla och garantera kvalitén inom lärarutbildningarna (specialpedagogiskt kunnade åt alla lärare), 2. genom kartläggning av behoven hos olika yrkesutbildare och gymnasier identifiera utvecklingsområden inom det specialpedagogiska fältet samt kunna erbjuda utbildningsmaterial och fortbildning, 3. bidra till en förnyad verksamhetskultur inom andra stadiet där ökad inkludering och delaktighet främjas.</p> |

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| METHODS /METHODOLOGY (up to 100 words) |
| Olika teman om områden inom projektet studeras med olika metoder så som dokumentanalys (befintliga läroplaner), designbaserad forskning (med utgång i intervjuer, observationer och fokusgruppdiskussioner med yrkesverksamma lärare) |
| EXPECTED OUTCOMES/RESULTS (up to 100 words) |
| Uppdaterade och utvecklade läroplaner hos lärarutbildarna, nya och uppdaterade kurser i lärarutbildningarna, publicerade forskningsartiklar |
| REFERENCES |
| <p>Jahnukainen, M. (2015). Inclusion, integration, or what? A comparative study of the school principals' perceptions of inclusive and special education in Finland and in Alberta, Canada. <i>Disability & Society</i>, 30, 59–72.</p> <p>Kiuppis, F. (2014). Why (not) associate the principle of inclusion with disability? Tracing connections from the start of “Salamanca Process”. <i>Internationa Journal of Inclusive Education</i> 18(7), 746-761.</p> |

10.Kati Korento, Erja Kotimäki, Oulu University of Applied Sciences - *Pedagogical co-creation in the border zone of education and working life (ENG)*

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| PRESENTATION FORMAT (Paper, poster, workshop or symposium) |
| Poster |
| Language for presentation |
| English |
| Title |
| Pedagogical co-creation in the border zone of education and working-life |
| AUTHOR(S) and AFFILIATIONS |
| KATI KORENTO, SENIOR LECTURER AT OULU UNIVERSITY OF APPLIED SCIENCES |
| ERJA KOTIMÄKI, SENIOR LECTURER AT OULU UNIVERSITY OF APPLIED SCIENCES |
| Keywords (3-5) |
| Work related pedagogy, co-creation, border zone, cultural-historical activity theory (chat) |
| TYPE OF WORK (RESEARCH, DEVELOPMENT or WORK IN PROGRESS) |
| WORK IN PROGRESS |
| FRAMING (General description, research questions, theoretical framework) (up to 200 words) |
| We have been developing work related pedagogy among vocational education since 2013. At first, we have been defining (with an expert group) what kind of expertise a vocational teacher or a pedagogy of working life needs. In this defining process, we have utilized our earlier results from the project "Future driven Knowledge Community - developing professional teacher". The competence criteria was tested in a training session, where we had both the vocational teachers and the experts of the working life co-creating the criteria further. |

Our next step is to start developing competence criteria for the professional teachers in the University of Applied Sciences and their working-life partners in a project "Work-Integrated Pedagogy in Higher Education" (WORKPEDA). Our main question is; What kind of expertise and tools are needed in the pedagogical border zone of learning and work in higher education context?

METHODS /METHODOLOGY (up to 100 words)

Cultural-historical activity theory (chat)

EXPECTED OUTCOMES/RESULTS (up to 100 words)

The results will be published during 2020.

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Paaso, A., Korento, K & Kotimäki, E. 2013. Ennakoiva osaamisyhteisö- Kehittyvä ammatillinen opettajuus. Loppuraportti. Oulu: Oulun seudun ammattikorkeakoulu.