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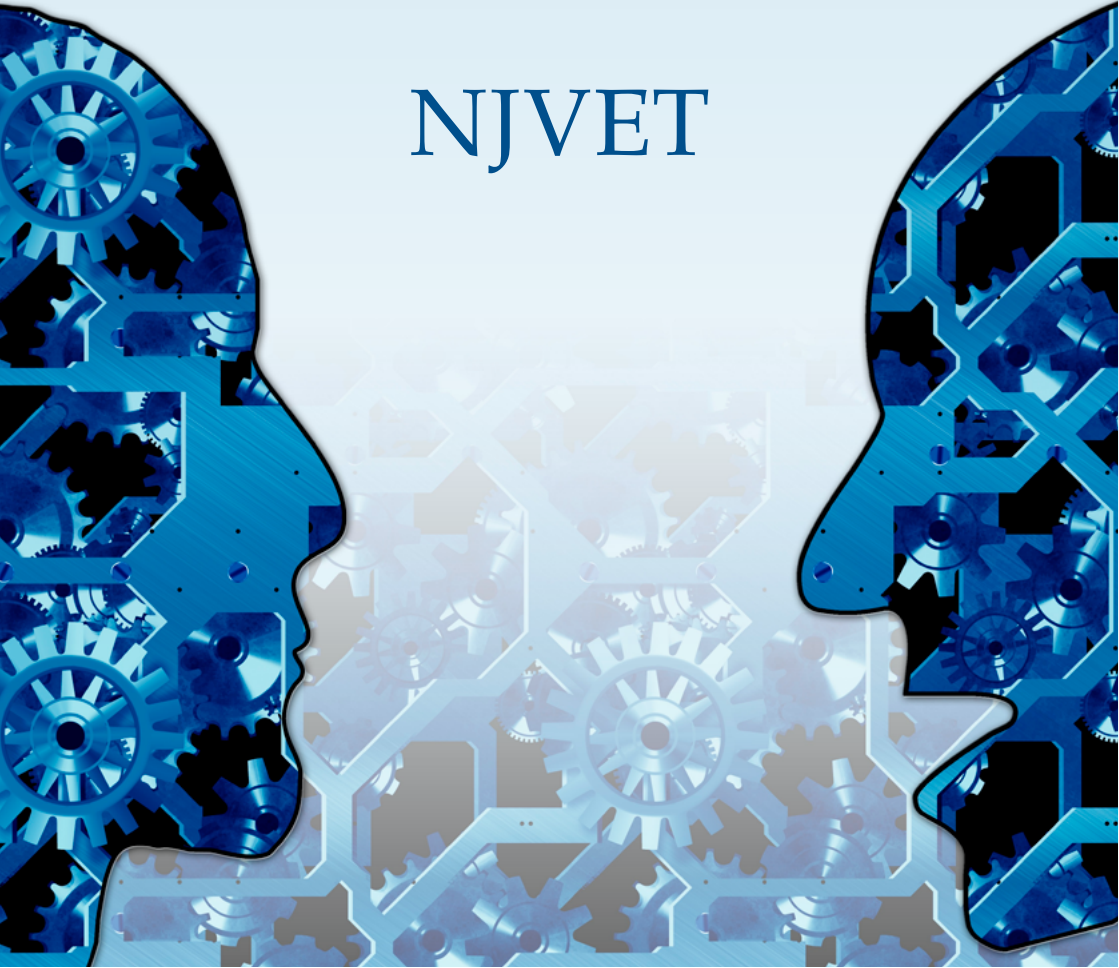




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Editorial: Summer 2026

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This journal, the *Nordic Journal of Vocational Education and Training*, is published on behalf of the Nordic vocational education and training (VET) research network *NordYrk*. The network met in June in Jyväskylä, Finland, at its annual conference, where a broad spectrum of VET research was presented. The research projects and findings that were presented will hopefully result in new articles published in our journal in the coming volumes. But for now, we are presenting four new articles based on earlier research efforts in Sweden, Finland, and Denmark. They are about matchmaking in the technology industry via recruitment to VET, literacy practices expressed in reading a blueprint at a construction site, transitions from school- to workplace-based training, and learning outcomes in professional education concerning collaboration.

The four articles

The first article, *Matchmaking i industri- och teknikbranschen: En diskursanalys av Teknikcolleges hemsida* (Matchmaking in the technology industry: A discourse analysis of the Teknikcollege website), is written by **Maria Terning**, **Katarina Kärnebro**, and **Daniel Persson Thunqvist** from Sweden. Their article addresses previously known matching problems in the Swedish context, namely the gendered industry sector and the dominance of masculinities, and offers a new perspective by analysing this mismatch through the lens of tensions among labour markets, education, and young people's wishes. The authors examine the digital marketing strategies of a branding and certification collaboration among technical colleges called 'Teknikcollege' (TC), a certification concept for upper secondary vocational education, designed to attract students, educational



institutions, and employers. The theoretical underpinning of the analysis is gender systems theory. Three discursive strategies are explored through a critical discourse analysis of TC's website: social identities, relationships, and power structures. The website seems to reflect international trends towards the marketisation of education, expressed through advertising and target-group thinking in the competition for attention in an age of economisation and technological boom-up. The results suggest that an overarching industrial discourse permeates all discursive strategies, while additional discourses are often contradictory. The results indicate that TC's marketing directed at students, especially young women, emphasises autonomy in ways that challenge traditional gender norms within industrial professions. Also, communication aimed at educational providers reflects discourses of responsibility and inclusivity. In contrast, employer-oriented messaging relies on traditional masculine ideals as a hierarchy, positioning students as production resources that contribute to and reproduce the masculine: the strong male worker and the manager, whose mis-recruitment costs money and jeopardises economic growth at local and global scales. Although TC seeks to increase attractiveness across non-gendered routes and careers in the industry sector, its marketing fails to address underlying power dynamics and tensions, thereby maintaining the existing mismatch.

In the second article, **Anne Kolehmainen** from Finland writes about *Vocational students' literacy practices at a construction site: Nexus analysis of reading the blueprint*. The article's point of departure is that literacy is one of the 'key competencies' for lifelong and continuous learning in the European Qualifications Framework, and Kolehmainen examines professional literacy practices in vocational education and training (VET) in Finland. The participants in her study are eleven students, young people in a technical building services programme, and their vocational teacher, who work at the construction site on the vocational school's premises. Literacy skills are understood as multiliteracies, as texts increasingly comprise linguistic, visual, audio, spatial, and gestural semiotic systems. Kolehmainen explains that, in this context, a multiliterate person is flexible in understanding and using traditional and new communication technologies, has a repertoire of literate knowledge and practices, and can engage with new texts in different contexts. The article's analytical focus is on reading a 'ventilation blueprint' at the work site, and it asks what kind of literacy practice the blueprint represents and what situated factors affect its use. The data consist of ethnographic field observation data at the work site and interviews with the students. These data were analysed using nexus analysis. The results are discussed through three cycles of discourse: the discourses in place, the discourse of interaction orders, and the discourse of participants' embodiment. The results show that reading the blueprint is the prerequisite for performing the work task, because its material substance is relevant, as it enables using embodied methods in the concrete

working environment. Interaction around and with the blueprint includes significant activities such as resolving, organisation of workflow, evaluation and bridging the theory/practice divide. Kolehmainen concludes that reading the blueprint required a concrete environment for the work at hand, which we, as editors, would argue aligns well with earlier work published in this journal, showing that the educational part of vocational learning is inseparable from the communities and contexts in which practical knowledge translates to action.

The third article presents a study from Denmark, *Transition from school-based to workplace-based training: Student, teacher, and trainer perceptions of the interrelation of school-based and workplace-based training*, made by **Vibe Aarkrog** and **Anne Katrine Kamstrup**. The article aims to examine VET students' experiences of transition from school-based training to workplace-based training. In addition to exploring the students' own perspectives on the relationship between school- and workplace-based training, the study also considers the positions of teachers and workplace trainers as factors that influence students' experiences of this transition. Therefore, the authors investigate the narratives students construct to make sense of the transition and explore how the positions adopted by teachers and workplace trainers shape these narratives. The article is based on empirical data from interviews with students, their teachers, and workplace trainers. The students were recruited from five schools and were interviewed at school before their transition to workplace-based training and again at their workplaces after they had commenced the training. The study identifies four student narratives (two expressed during school-based training and two after the commencement of workplace-based training), as well as two teacher positions and two trainer positions. These groups produce contrasting narratives concerning the relationship between school-based and workplace-based training, the relevance of school-based learning for workplace training, and the role of school-based education. During school-based training, students construct two contrasting narratives: 'I want to use the knowledge I have acquired at school during workplace-based training' and 'I want to put school behind me.' Similarly, during workplace-based training, students construct contrasting narratives regarding the meaningfulness and relevance of school-based learning. The analysis of the teacher interviews reveals differing views on the role of school-based training, with some teachers emphasizing broad knowledge and general skills, while others focus on specific vocational skills. Likewise, workplace trainers adopt different positions regarding the relevance of school-based training for workplace learning. While juxtaposing the student narratives with the different positions by teachers and workplace trainers, the article shed light on conditions that promote either smooth or more irregular transitions. Furthermore, the study contributes to a more nuanced understanding of students' experiences of moving between school-based and workplace-based training in VET.

On the note on knowledge and contexts we were already into. The fourth article published in this issue is a study from Sweden, *Collaboration at the intersection of policy, practice, and professional identity: An analysis of governance and degree learning outcomes in four Swedish professional higher education programmes*, written by **Matilda Fredriksson** and **Charlotta Pettersson**. Their article analyses how Swedish national degree learning outcomes regarding collaboration across educational and workplace contexts are interpreted, implemented and assessed in four education programmes. In this context, they also explore how professional logics and indirect governance enable or limit the pedagogical possibilities for practice-based learning and equitable assessment across institutions. Drawing on neo-institutional theory and a governance perspective, their article analyses semi-structured interviews with programme directors from 21 Swedish universities and university colleges. The analytical focus is on the interpretation, implementation, and assessment of the learning outcomes. From this perspective, the article's analysis suggests that collaboration is framed as a self-evident core competence but is interpreted differently across education programmes. The findings suggest that professional logics shape local interpretations in a way that can give similar outcomes different meanings. They also suggest that organisational structures, such as timetables, course architecture, and placements, function as indirect governance, enabling or constraining collaboration. Thirdly, Fredriksson and Pettersson's results suggest that assessment of learning outcomes tends to privilege reflection over action, shifting responsibility from students to supervisors in the practical learning contexts analysed. Their study concludes that authentic, practice-based learning and assessment designs, supported by coherent organisational and policy conditions, are crucial for achieving functional equivalence of the notion of learning outcomes across contexts and institutions.



Matchmaking i industri- och teknikbranschen: En diskursanalys av Teknikcolleges hemsida

Matchmaking in the technology industry:
A discourse analysis of the Teknikcollege website

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Abstract

This article addresses the mismatch in Sweden between youth interest in industrial and technology education and labour market demands. It examines the digital marketing strategies of Teknikcollege (TC), a certification concept for upper secondary vocational education, aimed at attracting students, educational providers, and employers. Using critical discourse analysis of TC's website, the study explores how discursive strategies construct social identities, relationships, and power structures, interpreted through gender system theory. The findings indicate that an overarching industrial discourse permeates all target groups, while additional discourses are often contradictory. Marketing directed at students, especially young women, emphasises autonomy and challenges traditional gender norms within industrial professions. Communication aimed at educational providers reflects responsibility and inclusivity discourses. In contrast, employer-oriented messaging relies on traditional masculine ideals, positioning students as production resources. Although TC seeks to increase sector attractiveness, its marketing fails to address underlying power dynamics and tensions, thereby maintaining the existing mismatch.

Keywords: vocational education, gender, skill supply, marketing, identity constructions



Inledning

Hur kan fler unga attraheras till tekniska och industriella yrken? Denna fråga har dubbel aktualitet i Sverige där det å ena sidan finns arbetslöshet och å andra sidan finns svårigheter att säkra kompetensförsörjningen inom denna arbetslivs-sektor; matchningen mellan ungas önskemål och de kunskaper som efterfrågas i arbetslivet stämmer inte överens. Mansdominerade tekniska och industriella yrkesutbildningar har dessutom låg attraktionskraft bland unga och i synnerhet bland kvinnor (Panican, 2020; Tellhed, 2022).

I ett nordiskt perspektiv utmärker sig Sverige genom att staten har ett betydande inflytande på yrkesutbildning till skillnad mot i exempelvis Danmark (Jørgensen m.fl., 2018). Numera märks dock en utveckling mot ökad marknads-ering och med delvis nya regionala aktörer och industriföretag, där organisationen Teknikcollege engagerar sig inom ramen för yrkesutbildning och ungas bristande intresse för industriarbeten. Det saknas dock forskning om hur kända matchningsproblem hanteras i spänningsfältet mellan arbetsliv, utbildning och ungas önskemål. Denna studie fyller denna lucka genom att undersöka hur utbildningar marknadsförs för att locka fler unga till tekniska och industriella yrken. Med hjälp av ett diskursanalytiskt perspektiv synliggörs hur samtida ideal och samhällsintressen på olika sätt kommer till uttryck i denna marknadsföring (jfr Fairclough & Wodak, 1997). Det är en marknadsföring som bland annat riktar sig mot flickor i syfte att få dem att våga göra otraditionella utbildningsval samtidigt som den anspelar på stereotypa föreställningar om den traditionella och kompletta industriarbetaren.

Den marknadsföring som studeras är Teknikcollege nationella webbplats (Teknikcollege, u.å.d). Teknikcollege (TC) är ett koncept för certifiering av yrkesutbildning på gymnasial nivå som utvecklats av Industrirådet, främst för att trygga kompetensförsörjningen inom industrisektorn. TC utmärker sig bland annat genom ett mycket medvetet och påkostat sätt att marknadsföra verksamheten. Detta aktualiserar intressanta forskningsspörsmål om hur utbildningsanordnare och arbetsgivare försöker attrahera unga för tekniska och industriella yrken, och hur de marknadsför branschen och yrket mot andra målgrupper i samhälle och arbetsliv.

Syftet med artikeln är att undersöka vilka föreställningar om industriarbetaren och industrieleven som skapas och upprätthålls i TC:s marknadsföring. Detta görs genom en analys av vilka strategier som används på tre sammanlänkade webbsidor med olika mottagare: en sida som riktar sig till presumtiva elever, en som riktar sig till utbildningsanordnare och en som riktar sig till industriföretag.

Teknikcollege som samverkansform och matchningspraktik

Samverkan mellan utbildningsanordnare och arbetsgivare framställs ibland som en åtgärd med potential att råda bot på olika typer av problem på arbetsmarknaden, däribland matchningsproblematiken (Olofsson, 2015; Persson & Hermelin, 2018). Under senare tid har TC uppmärksammats inom forskning om yrkesutbildning och arbetsliv som en principiellt intressant samverkansform: kommuner, utbildningsanordnare och industriföretag samverkar i syfte att göra utbildningarna attraktiva och säkerställa deras kvalitet (Olofsson, 2020). I grunden är Teknikcollege ett koncept för certifiering av utbildning som utvecklades 2004 av Industrirådet, en sammanslutning av arbetsgivar- och arbetstagarorganisationer verksamma inom industrisektorn (Teknikcollege, u.å.d). På nationell nivå utövar Riksföreningen Teknikcollege Sverige (bildad 2007) tillsyn över de lokala kompetenscentra genom ett system för certifiering. TC fungerar därmed som en intermediär organisation som möjliggör intersektoriell samverkan, och företagen spelar en viktig roll när utbildningsanordnaren utformar kurser och program. Initiativet var ett svar på ovan nämnda utmaningar för industrisektorn som blev uppenbara under det nya millenniet: missmatchning i arbetslivet som hotar kompetensförsörjningen inom industrisektorn, låg attraktionskraft bland unga att söka sig till yrkesprogram för industriella yrken men även svårigheter att rekrytera kvinnor till tekniska och industriella yrken (Karlsson m.fl., 2015).

Historiska studier ger en fördjupad förståelse för hur denna samverkansform har vuxit fram över tid i svenskt arbetsliv (Olofsson, 2015; Olofsson & Wadensjö, 2021). TC har beskrivits som ett uttryck för en delvis ny variant av den svenska förhandlingsmodellen i arbetslivet, baserad på partnerskap mellan arbetsgivare, fackföreningar och även kommuner (Karlsson m.fl., 2015; Olofsson & Persson Thunqvist, 2018). Inom yrkesutbildningsområdet kan rötterna till Teknikcollege spåras till industriskolor organiserade av företag i samverkan med fackföreningar vilka florerat i Sverige under olika perioder sedan 1950-talet (Karlsson m.fl., 2015). Ett dilemma för företagsstyrda yrkesutbildningar är att lärandet blir företagsspecifikt och att kunskaper följaktligen kan vara svåra att överföra till andra sammanhang. Teknikcolleges starka fokus på certifieringar vilka både har en lokal och regional räckvidd implicerar att kunskaper och färdigheter i relativt stor utsträckning är överförbara till många olika företag och teknologiska och industriella sammanhang. Certifiering kan dock höja elevers förväntningar och förhoppningar om utbildningskvalitet och framtida arbete och leda till besvikelse och kritik när inte utbildningarna håller vad de lovar (Persson Thunqvist & Gustavsson, 2021).

Samverkansformen är ett tydligt exempel på hur industriföretag tagit en mer drivande roll i att aktivt påverka och engagera sig i yrkesutbildningar på lokal nivå men också på sätt som kan konkurrera med den nationella utbildnings-

politikens bredare målsättningar, exempelvis social inkludering (Persson & Hermelin, 2018). Huvudidén är alltså att motverka matchningsproblem inom tekniska yrkesområden och därigenom säkerställa kompetensförsörjning. TC kan betraktas och studeras som en matchningspraktik som involverar flera olika aktörer och målgrupper. Därmed reses frågor om vilka föreställningar om industriarbetare och industrilever som skapas och upprätthålls.

Bilder av industriarbetaren i arbetslivet, i skolan och i medier

Statistik över förstahandsval till Industritekniska och Teknikprogrammet visar att flickor är i minoritet då 89 procent respektive 81 procent av de sökande till dessa program är pojkar (Skolverket, u.å.). Bilden av industriarbetaren är också intimt kopplad till föreställningar om maskulinitet (Faulkner, 2003). En återkommande dikotomi för att identifiera och kategorisera arbetare inom industriarbetarkulturer är, enligt Faulkner (2003), den praktiske teknikern och den högskoleutbildade ingenjören. Medan den förstnämnde utför manuellt arbete i verkstaden arbetar ingenjören längre från tillverkningen, alternativt på kontor. Denna dikotomi mellan två maskuliniteter är klassbaserad och konstruerar en gränsdragning mellan kropp och själ (Mellström, 2003).

Dikotomin som beskrivs ovan återfinns även i identitetserbjudanden till grundskoleelever i färd med att välja program till gymnasieskolan. I en diskursteorietisk textanalys av propositionen "Högre krav och kvalitet i den nya gymnasieskolan" som ligger till grund för 2011 års gymnasieskola visar Terning och Tsagalidis (2020) hur elever som ska välja yrkesprogram respektive högskoleförberedande program tillskrivs olika egenskaper. Medan yrkeseleven sägs ointresserad av teoretiska studier och med en fallenhet för praktiska arbetsuppgifter framställs eleven på högskoleförberedande program som dess motsats. Ett val av yrkesprogram blir därmed en förberedelse för arbeten med inriktning mot praktiska arbetsuppgifter medan val av högskoleförberedande program leder till universitetsstudier och arbeten med en mer privilegierad position. Terning och Tsagalidis (2020) argumenterar för att valet till gymnasieskolans olika program inkluderar skilda sociala och samhälleliga positioner som för yrkeseleven innebär en underordnad position i relation till eleven på högskoleförberedande program (jfr Carlbaum, 2012; Nylund, 2013; Terning, 2016; Tsagalidis & Terning, 2017). Berge m.fl. (2019), studerar i sin tur hur ingenjörsprogrammen vid svenska universitet, via webbsidornas texter och bilder, presenterar programmen och vilka identiteter som erbjuds för ingenjörer och ingenjörsstuderande. Författarna identifierar tre sociala diskurser; teknologisk utveckling, hållbarhet och nyliberala ideal, vilka i sin tur erbjuder studenten en identitet som speglar en traditionell och samtida ingenjör som är ansvarstagande och självlärd. Analysen visar även att universitetens ansträngningar att vidga identitetserbjudanden ändå genomskyras av stereotypa normer

om kön, ålder och etnicitet. Författarna hävdar slutligen att den nyliberala föreställningen om den självlärd ingenjören förstärker ett historiskt och traditionellt maskulint ingenjörsideal (Berge m.fl., 2019).

Män som historiskt varit överrepresenterade på samhällets högstatus- och expertpositioner föreställs ha "agentiska" egenskaper som innefattar att vara bestämd, kompetent och självständig (Ellemers, 2018). Fysisk och muskulär styrka är också något som traditionellt förknippas med maskulinitetsnormer i traditionella arbetaryrken (Yeo, 2004). Försök att locka fler kvinnor till teknikbranschen i Sverige har främst skett inom STEM-området (Science, Technology, Engineering, Mathematics) medan färre satsningar har gjorts mot de mer traditionella mansdominerade arbetaryrkena inom industri-, maskin-, bygg- och transportsektorn (Jämställdhetsmyndigheten, 2021). Trots satsningar för att överbrygga traditionella utbildningsval i jämställda samhällen har könsmönster tvärtom stärks i val av utbildning och då särskilt inom teknik och naturvetenskap, vilket bland annat Tellhed (2022) benämner som en jämställdhetsparadox.

Att teknik så starkt associeras med maskulinitet kan i ett svenskt sammanhang förstås mot bakgrund av att den svenska nationen länge identifierats och betraktats som en ingenjörsnation eller tekniknation. Mellström (1999) nämner tre olika maskulinitetsideal kopplat till teknik: ingenjören, mekaren och data-nörden. I tider av brist på tekniker rekryterades de som ansågs tillhöra begåvningsreserven till ingenjörssyrket vilka på 1950-talet bestod av arbetarpojkar och på 1970-talet kvinnor. Skillnaden mellan vad som sågs som maskulint respektive feminint konstruerades bland annat i termer av förnuft-känsla, rationalitet-irrationalitet, hårt-mjukt och stark-svag. På så vis ryms även en maktrelation där maskulinitetens styrka och rationella handlag är överordnade femininitetens tillskrivna egenskaper. I en doktorsavhandling (Ferm, 2021) om bland annat kvinnliga yrkeselevers identitetsskapande på industritekniska programmet (Ferm & Gustavsson, 2021) tar ovan nämnda skillnader sig uttryck i form av att eleverna under den arbetsplatsförlagda delen av utbildningen framställer sig själva som tuffa och "hårdhudade". De lär sig jargongen på fabriksgolvet samtidigt som de inser att industrierna inte är gjorda för tjejer och att de måste anpassa sig till att tåla grabbiga skämt och manligt kodade normer för att passa in.

Forskning visar att jämställdhetsåtgärder som vidtas från branschhåll främst inriktas mot enskilda individer i syfte att uppmuntra dem till att våga göra otiditionella utbildningsval, medan de genusprocesser som sker i skolvardagen på yrkesprogrammet inte utmanas i särskilt stor utsträckning (Hedlin & Åberg, 2013). Stereotypa könsnormer upprätthålls i yrkesutbildningen via interaktions- och relationsmönster (Kärnebro, 2013). Dessa bygger på intrikata samspel av emotionella, materiella och kroppsliga aspekter, vilket kan göra att det är svårt

för kvinnor att komma in i gemenskapen och hävda sig (Åberg & Hedlin, 2015). Svensk forskning om bland annat gruvindustrins utveckling visar att hållbarhetsaspekter inom denna industri, särskilt den tekniska utvecklingen via datoriserade processer och robotar, har öppnat upp möjligheten för att fler kvinnor kan söka sig till yrket, men att den tekniska utvecklingen i många fall möter motstånd hos det manliga kollektivet som vill vidmakthålla de traditionella arbetssätten och maktstrukturerna (Abrahamsson m.fl., 2014).

Aktiv marknadsföring i syfte att öka attraktionskraften för tekniska och industriella yrken

Skolor marknadsförs i Sverige via sociala medier, webbsidor, påkostade broschyrer och mässor, samt löften om gåvor (t.ex. datorer, Ipads, gymkort) som syftar till att locka elever (Lund, 2007). Argumenten i marknadsföringen bygger på att eleven är fri att välja sin utbildning och bör hitta sin egen väg till framgång och lycka. Diskursiv och praktisknära forskning om hur aktiv marknadsföring spelar in industriföretagens strategier för att locka fler unga till tekniska yrken är dock relativt eftersatt.

Teknikcolleges hemsida kan ses som en tydlig manifestation av internationella trender mot tilltagande marknadsisering av utbildning i form av marknadsföring, reklam och målgruppstänkande i konkurrensen om uppmärksamhet i digitaliseringens tidevarv. Inom kritisk diskursanalys har marknadsföring som diskurs framför allt behandlats inom högre utbildning (Fairclough, 2003). Marknadsföring brukar definieras som en procedur inom näringslivet som involverar utbyte av varor och tjänster för att möta människors behov. Syftena med marknadsföring kan vara mångfunktionella, då de kan inbegripa information, argumentation, vägledning, underhållning etcetera, men i grunden handlar marknadsföring om att övertyga människor att handla och tänka på ett visst sätt. Inom utbildning handlar marknadsföring också om identitetsformerande processer (Fairclough, 2003) i termer av institutionella och professionella identiteter (vem "avsändaren" vill vara) samt tillskrivna sociala identiteter (hur "adressaten" framställs). Överfört till yrkesutbildningsområdet är det också motiverat att beakta intertextuella relationer mellan olika typer av marknadsföringsdiskurser med syfte att attrahera och rikta elever mot särskilda yrken och karriärer. I ett historiskt perspektiv har det vanligtvis varit staten som via nationell utbildningspolitik sökt dirigera elever mot olika utbildningsvägar där det finns behov av arbetskraft, eller att bredda den sociala rekryteringen av elever i inkluderande syften. Numera har nya konstellationer av samverkan mellan utbildning och näringsliv för att öka yrkesutbildningars attraktionskraft bidragit till delvis hybrida former av marknadsföring. Exempel är hur Skolverket, forskare och praktiker lyft fram ungdomstävlingar inom olika yrkesområden

som ett sätt att öka ungas intresse för yrkesutbildning (Tsagalidis & Terning, 2017).

En diskursanalytisk ansats kan bidra till en problematisering av dels hur en aktör som Teknikcollege tillskriver sig själv en identitet och maktposition, dels hur de tillskriver elever och företag olika identiteter i och genom sin utåtriktade marknadsföring. De diskursiva strategier som används för att attrahera unga att söka sig till tekniska utbildningar kan både utmana och cementera de yrkesidentiteter, relationer och maktförhållanden som råder mellan elever, utbildningsanordnare och arbetsmarknaden.

Empiri, teori och metod

Empirin som används i denna studie är TCs nationella webbsida. Innehållet, både text och bild, produceras i ett sammanhang där utbildning, och då särskilt yrkesutbildning och dess roll i relation till arbetsmarknaden, är den övergripande sociala praktiken. Med kritisk diskursanalys som teoretisk ram (Fairclough, 2003; Fairclough & Wodak, 1997) görs en textanalys som är baserad på Hellspong och Ledins analysmodell (1997) och en bildanalys som är inspirerad av Kress och van Leeuwen (2006).

Inom den kritiska diskursanalysen är sambandet mellan språk och kontext centralt. Beroende på sammanhang och situation görs olika språkliga val som får en särskild innebörd. Den kritiska diskursanalysen fokuserar på hur antaganden skapas, vilken funktion de fyller i kommunikativa händelser samt vilka sociala processer som reproducerar eller transformerar dem (Fairclough, 2003). Texter och bilder på TCs webbsida förstås sålunda som kommunikativa händelser där diskurser både produceras, reproduceras och förändras. Genom en diskursiv kamp förhandlas och omförhandlas antaganden om och föreställningar om identiteter, i det här fallet (yrkes)elever, utbildningsanordnare och företrädare från industriföretag. Innehållet på webbsidan avslöjar den organisatoriska identitet som TC som avsändare önskar att tillskriva sig själv, samt de sociala identiteter som TC tillskriver de tre olika mottagargrupperna. De identitetsformerande processer som sker via marknadsföringen påverkas av den större diskursordningen och kan inte tolkas som en isolerad företeelse (jfr Fairclough, 2003).

I vår analys av den större diskursordningen samt för att studera organisering och reproduktion, av vad som anses manligt och kvinnligt, används Hirdmans (1988) begrepp genussystem, isärhållandets logik och den hierarkiska logiken. Historikern och genusforskaren Yvonne Hirdman introducerade begreppet genussystem med vilket det är möjligt att analysera hur makt och kön samverkar i sociala strukturer, institutioner och vardagsliv. Enligt Hirdman (1988) organiseras och reproduceras könsordning utifrån två grundläggande logiker:

isärhållandets logik och hierarkins logik. Via isärhållandets logik tillskrivs män och kvinnor olika roller och uppgifter. Genom den hierarkiska logiken är mannen normen för det normala och allmängiltiga och därför hierarkiskt överordnad kvinnan. Grunduttrycket för isärhållandets logik finns, skriver Hirdman (1988), i arbetsdelningen mellan könen och i föreställningen om vad som är manligt och kvinnligt arbete. Dessa logiker reproduceras och "binder" könen till innehav av skilda egenskaper, olika arbetsuppgifter, verktyg och platser. Försök till gränsöverskridande verkar, enligt Hirdman (1988), skapa motstånd och/eller social uteslutning. Genussystemet är på detta sätt seglivat då det hela tiden reproduceras och upprätthålls.

Analysförfarande

Kritisk diskursanalys sker genom en analys av tre nivåer av en kommunikativ händelse (Fairclough, 2003). Den första nivån innebär en noggrann granskning av texten och dess funktioner. Vid analys av den andra nivån, den diskursiva praktiken, ligger fokus på hur textförfattaren bygger på redan befintliga diskurstyper, det interdiskursiva, men också på hur textmottagarna kan tolka texten med hjälp av diskurstyper. I den tredje nivån, den sociala praktiken, undersöks förhållandet mellan diskursiv och social praktik. Här intresserar man sig främst för den diskursiva praktikens funktion och huruvida den reproducerar eller transformerar en social ordning, klargör maktförhållanden eller döljer dem. Analysförfarandet inleddes med läsning (text och bild) av de sidorna på TCs hemsida som vänder sig till elever, utbildningsanordnare och företag. Efter att ha fått en överblick fortsatte arbetet med att analysera innehållet med utgångspunkt i textens tre metafunktioner: den ideationella, den interpersonella och den textuella nivån (Hellspong & Ledin, 1997). Analys av den ideationella nivån svarar på frågor om vilka tidigare föreställningar som texten bygger på, vilka antaganden och implicita slutsatser som finns. På den interpersonella nivån analyseras relationen till mottagaren samt om texten innehåller explicita erbjudanden, varningar, upplysningar och så vidare. På den textuella nivån analyseras ordval, begrepp, beskrivningar och de textbindningar som skapas mellan dessa (Hellspong & Ledin, 1997). De bilder som finns på hemsidan förstås som en del av den kommunikativa händelsen och som en uttrycksform som valts i relation till texten, i syfte att skapa meningsfulla sammanhang i den sociala praktik som hemsidan utgör (jfr Kress & van Leeuwen, 2006).

Utifrån dessa analysverktyg studeras hur mottagare och avsändare positioneras diskursivt och hur diskurser kombineras, reproduceras eller utmanas.

Resultat

I denna del av artikeln presenteras i tur och ordning resultatet av analysen av de tre sidor på TCs webbplats som är adresserade till elever, utbildningsanordnare och företag. Varje webbsida analyseras var för sig. Genom text och bildanalys har vi identifierat några gemensamma teman: framtiden, certifiering, ansvar och erbjudande. I varje text- och bildanalys identifieras olika diskurstyper i den diskursiva praktiken. I den sammanfattande och avslutande diskussionen görs en analys av den sociala praktiken genom att marknadsföringsstrategierna belyses närmare och kopplas till den bredare diskursordningen via bland annat Hirdmans logiker och teknik- och industribranschens villkor.

Resultatet visar en differentiering som utmärker webbplatsen: Bilder och texter är anpassade till de tre olika mottagarna med olika tilltal. Parallellt framkommer hur samtliga mottagare (presumtiva elever, utbildningsanordnare, företag) tillskrivs olika identiteter på de skilda webbsidorna beroende på självframställningar av Teknikcollege som organisation samt de normer och framtidsinriktade ideal som man vill framföra i marknadsföringen. De skilda budskapen i texterna blir intressanta då de avspeglar samtida kontrastiva diskurser.

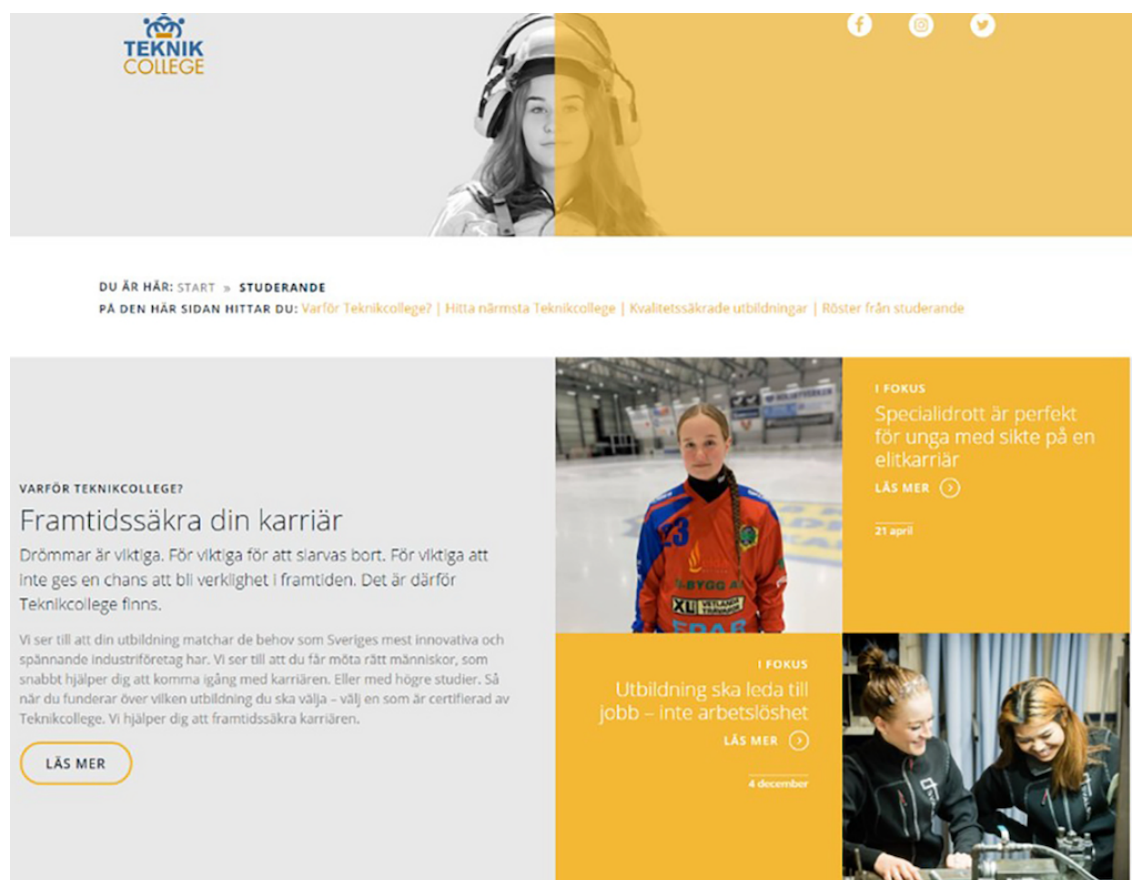
Textanalys av elevens webbsida: Normbrytande karriärkvinnor

I följande avsnitt analyseras text och bilder i relation till hur Teknikcollege framställer sig som det självklara utbildningsvalet och dessutom som normbrytare av genusrelationer i arbetslivet. Sidan som riktar sig mot presumtiva elever (Figur 1) domineras av bilder på unga kvinnor i karriären. Med dessa bilder på kvinnor verksamma inom mansdominerade yrken kontrasteras en möjlig framtid där kvinnor befolkar den tunga industrin. Texten speglar bilderna i form av ett erbjudande om en säkrad framtida karriär.

Denna webbsida som är riktad till elever har färgerna grå och gul där de grå partierna signalerar seriositet och mognad medan det gula signalerar värme, energi och kreativitet. Bilden med flickan i hjälm med hörselkåpor sammanför de båda färgfälten. Det finns flera bilder på flickor på webbsidan. Bilden på flickan som befinner sig i en ishall, konnoterar elitidrottande flickor med värdefulla egenskaper för en karriär inom industrisektorn. Bilden med två flickor som samarbetar i en verkstadsmiljö signalerar vikten av att välja en utbildning som leder till arbete.

Framtidssäkrade karriärer

Ett framträdande tema i analysen av TC:s hemsidor är framtiden. Temat är särskilt centralt på denna sida som marknadsförs mot elever. Framtiden erbjuder möjligheter samtidigt som möjligheterna villkoras. De elever som TC vänder sig till är flickor som drömmer om att göra karriär. Innehållet i drömmarna och karriären styrs till att göra karriär inom teknik- och industrisektorn.



Figur 1. Sidan på TCs officiella webbsida som riktar sig mot presumtiva studerande (Teknikcollege, u.å.a.).

I näranalysen av hur eleven omskrivs i texten framkommer samtidigt hur Teknikcollege framställer sig själva som att de primärt agerar utifrån elevernas intressen av karriär. Teknikcollege använder pronomen såsom "du", "din" och "dig" i tilltalet. Användningen av pronomen, som i rubriken "Framtidssäkra din karriär", visar hur avsändaren vill skapa en närhet genom det direkta tilltalet. I samma rubrik finns en uppmaning där eleven ges en anmodan att framtidsäkra sin karriär. Därigenom blir avsändarens vilja att skapa en stark interpersonell och direkt relation synlig. Med denna inledande uppmaning förväntas läsaren vilja fortsätta läsa. Efter rubriken ovan följer en ingress som lyder:

Drömmar är viktiga. För viktiga för att slarvas bort. För viktiga att inte ges en chans i framtiden. Det är därför Teknikcollege finns. (Teknikcollege, u.å.a)

I tre av de fyra meningarna i ingressen understödjer avsändaren sin närhet och omtanke genom att engagera sig i framtidsäkringen av elevens karriär. I texten

används retoriska begrepp som anafor och tretal genom att elevens drömmar uttrycks "viktiga", "[för] viktig för att slarvas bort" och "[för] viktiga att inte ges en chans". Dessa retoriska grepp används ofta i reklamtexter och får meningsinnehållet att framstå som ett erbjudande där avsändaren bistår (hjälp) läsaren i dennes tankar om sin framtid. Efter att ha byggt upp denna närhet och förtrolighet till läsaren följer själva "lösningen" på hur läsarens drömmar om karriär ska kunna gå i uppfyllelse. Här träder hjälparen in, tillika Teknikcollege, i form av ett *vi*-tilltal. Genom ett kausalt konnektiv, ordet "därför", skapas i texten ett orsakssamband mellan textens *du* och *vi* – eleven har drömmar som TC kan förverkliga. Med hjälp av det återkommande *vi*-tilltalet skapas i texten en förtrolighet som inrymmer både trygghet och en utfästelse/försäkran. Avsändaren framställs som den aktiva, som "ser till" och "hjälp" medan mottagaren beskrivs som mer passiv och i behov av hjälp för att veta att hens kunskap och kompetens kommer att motsvara vad "Sveriges mest innovativa och spännande industriföretag" söker. En certifierad utbildning säkrar den framtida karriären som eleven sägs drömma om.

De önskvärda certifierade arbetarna och de icke-certifierade

Certifieringar är ett annat centralt tema på sidan som riktar sig till elever. Texten handlar om vikten av "rätt utbildning", det vill säga certifierade utbildningar, samt implicerande distinktioner mellan vad som är det önskvärda arbetet och dess motsats. Framtiden framställs som något eleven drömmer om; som något viktigt. Det som i texten beskrivs som viktigt är att matcha arbetslivets behov, det är vad eleven drömmer om, det är dessutom vägen till att kunna "framtidssäkra karriären". En förutsättning för att framtiden ska kunna bli mer än bara en dröm är att välja just en TC-certifierad utbildning, för "det är därför Teknikcollege finns" som det uttrycks i texten.

Hur TC närmar sig niondeklassarna

Texten som vänder sig till de som är i färd med att välja utbildning har både ett tydligt mottagarperspektiv och avsändarperspektiv. Texten på sidan ska svara på mottagarens fråga om varför en niondeklassare ska välja TC. Svaret på frågan utgör rubriken och lyder "Framtidssäkra din karriär". Textens *du* drömmer om att göra karriär inom industribranschen men är samtidigt fundersam på vilken slags gymnasial utbildning som kan förverkliga drömmen. Tankarna om hur framtiden ska te sig aktualiserar det viktiga och avgörande i val av din utbildning. Här utlovar avsändaren dig en lösning.

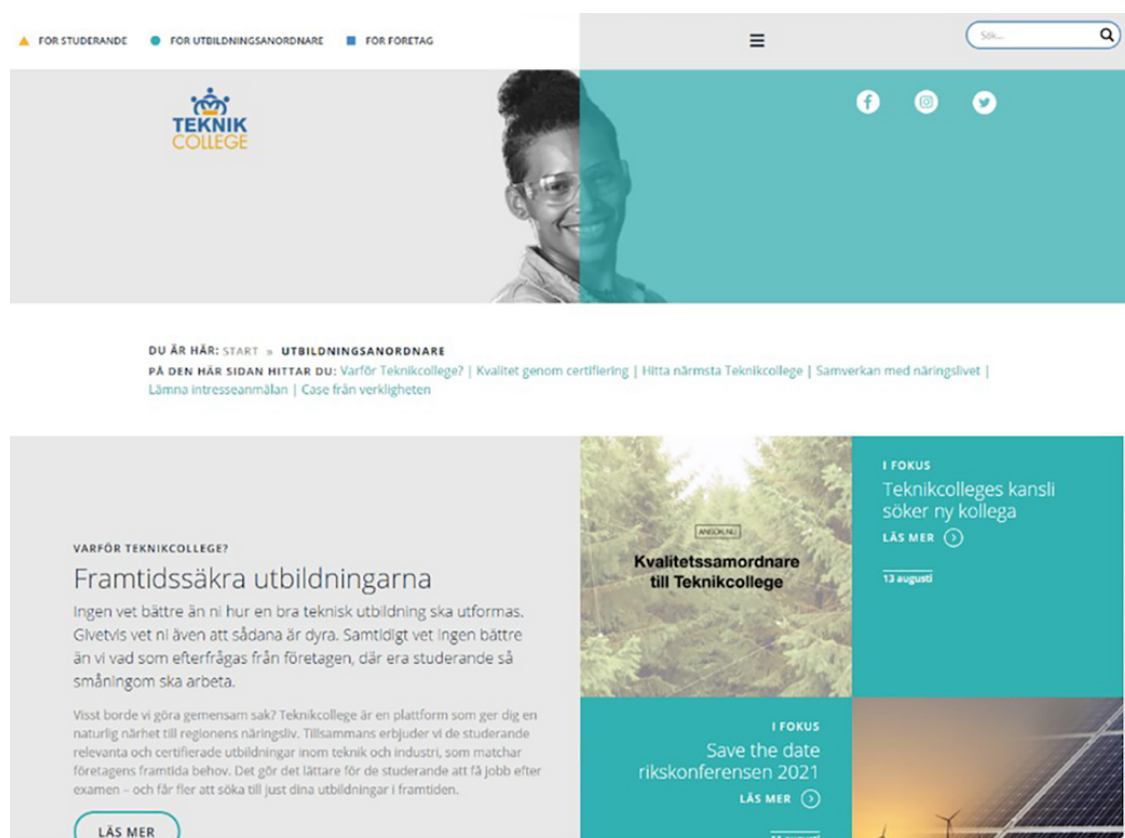
Textens *vi* är Teknikcollege, tillika hjälparen – ett val av TC är niondeklassarens svar på hur hens dröm ska framtidssäkras. Tonen i texten är förtrolig och textens *vi* ger mottagaren av texten explicita löften i form av att "vi ser till att din utbildning matchar de behov...", "vi ser till att du får möta rätt männi-

skor...”, ”Vi hjälper dig att framtidssäkra karriären”. Genom att framställa TC som den altruistiska hjälparen skapas ett framträdande avsändarperspektiv.

I beskrivningen av mottagaren synliggörs dock att TC inte vänder sig till alla niondeklassare. För att textens *vi* (TC) ska kunna infria de löften som utlovas krävs att *du* har drömmar som *du* inte vill slarva bort, *du* väljer TC och är beredd att arbeta hårt för att den framtida karriären ska säkras.

Diskursiv praktik: Den studiemotiverade flickan med karriärdömmar

Den elevidentitet som konstrueras här är en studiemotiverad flicka med karriärdömmar. Drömmarna förutsätts handla om att dels välja rätt utbildning, dels skaffa sig de kunskaper och kompetenser som arbetsgivare efterfrågar. Den här föreställningen tas för given, vilket kan relateras till en individualistisk diskurs om att följa sina drömmar och en ansvarsdiskurs där det gäller att bli anställningsbar. Det som enligt texten framstår som önskvärt för eleven är arbete och försörjning inom industrin.



Figur 2. Sidan på TC:s officiella webbsida som riktar sig mot utbildningsanordnare (Teknikcollege, u.å.b).

Textanalys av utbildningsanordnarens webbsida: Samarbete som garant för kvalitet

Sidan som riktar sig mot utbildningsanordnare (Figur 2) har bilder på en ungdom med skyddsglasögon samt på skog och sol- och vindkraft. Tillsammans med en rubrik om utbildning som säkrar arbete på en framtida arbetsmarknad, framställs Teknikcollege som den självklara samarbetspartnern för utbildningsanordnare som vill bedriva en kvalitativ utbildning för en hållbar framtid.

På denna sida kombineras den grå färgen med en mättad grön som i relation till bildernas innehåll för tankarna till en hållbar industri där framtida grön energiutvinning är central. I likhet med sidan som riktar sig mot elever finns här en bild som för samman färgfälten och förenar budskapet om en framtidssäkrad utbildning som drivs seriöst och ansvarstagande med fokus på framtida behov på arbetsmarknaden. Till skillnad mot bilden på flickan i hjälm signalerar bilden på eleven här en mångfald avseende etnicitet och kön. Eleven bär glasögon vilket för tankarna till en laborationssal i ett undervisningssammanhang som tillskriver eleven egenskaper såsom kreativitet och nyfikenhet.

Att förhandla vi-känsla och rätt kompetens

I texten som är riktad till utbildningsanordnare används ett direkt *ni*-tilltal: "Ingen vet bättre än ni", "givetvis vet ni även". Textens *ni* tilltalar skolhuvudmän som vid läsningen inte bedriver TC-utbildningar. Det är dock inte alla skolhuvudmän som inkluderas i tilltalet. Här sker en tydlig särskiljning genom skrivningar som "ingen vet bättre än ni hur en teknisk utbildning ska utformas". Här tilltalas en specifik mottagare som är kompetent och professionell och som vill fortsätta utveckla sina tekniska utbildningar. Textens *ni* tillskrivs också en medvetenhet om kostnaderna för att bedriva en bra teknisk utbildning. I ett läge i texten där ett erbjudande kan anas presenteras texten *vi*, tillika TC.

Textens *vi* framställs, genom skrivningen "samtidigt vet ingen bättre än vi vad som efterfrågas från företagen, där era studerande så småningom ska arbeta", som kompetent, pålitlig och trygg. Textens *vi* erbjuder här kunskap som framställs som värdefull för textens *ni*. Genom både en uppmaning och ett erbjudande i form av "Visst borde vi göra gemensam sak?" skapas ytterligare ett text-*vi* där både textens *ni*, i form av skolhuvudmän, och textens *vi*, det vill säga TC, avses. På detta sätt vill texten skapa förtroelighet och framställa ett samarbete som "det rätta", något som i sin tur framställer läsaren (skolhuvudmannen) som kompetent och handlingskraftig.

Genom användandet av detta text-*vi* målas en språklig gemenskap upp i vilken det för skolhuvudmän finns erbjudanden om tillgång till både regionens näringsliv och fler sökande till deras utbildningar. Att "göra gemensam sak" innebär i enlighet med följande skrivning "Teknikcollege är en plattform som ger dig en naturlig närhet till regionens näringsliv", ett löfte om kontakter i det

regionala näringslivet. Genom användningen av ordet "naturligt" framstår det som något i grunden rätt och riktigt. Textens *vi*, i form av skolhuvudmän och TC, sägs tillsammans kunna erbjuda utbildningar som motsvarar vad arbetslivet efterfrågar, vilket sägs gynna både arbetslivet, skolhuvudmännen och eleverna. Som skäl för ett samarbete ges därmed ekonomiska argument då fler elever ger mer pengar i form av skolpeng.

I relation till det text-*vi* som skrivs fram hörs i texten alltså ytterligare en röst i form av företagen och näringslivet som inkluderas i TCs text-*vi*. Att synliggöra kopplingen mellan näringslivet och TC i texten är ett sätt att ytterligare stärka den interpersonella relationen till skolhuvudmän och på så sätt framställa erbjudandet om att certifiera utbildningar inom TC-konceptet som något än mer eftersträvanvärt.

Framtiden som kräver ansvarsfulla utbildningsanordnare

Texten som vänder sig till utbildningsanordnare har, precis som texten vars mottagare är presumtiva elever, framtiden som ett tema. I den framtid som avsändaren beskriver är teknik- och industriföretagens behov av kompetens centralt. Utbildningsanordnarna framställs som de som har bäst vetskap när det gäller att utforma kvalitativa tekniska utbildningar. Mottagaren antas även veta att dessa utbildningar är kostsamma. Med utgångspunkt i antagandet om industrins behov av kvalitativ arbetskraft ses kostnaden för dessa utbildningar som nödvändig, nästan självklar.

I det text-*vi* som konstrueras tillskrivs TC och utbildningsanordnare viktiga identiteter som aktörer med "naturlig närhet till regionens näringsliv" som kan ge "certifierade utbildningar [...] som matchar företagets framtida behov". Detta *vi* agerar i linje med antagandet om industrins dominerande roll för landets arbetsmarknad och ekonomi.

På sidan som riktar sig mot utbildningsanordnare omnämns elever som "era studerande" och "de studerande". Genom att använda dessa pronomen tilltalas ej eleverna direkt utan omtalas som passiva objekt. Utbildningsanordnarna framställs däremot som aktivt drivande i att ge eleverna certifierade utbildningar som ger dem jobb efter avslutad utbildning.

Diskursiv praktik: Den ansvarsfulla och kompetenta utbildningsanordnaren

Bilden på industrieleven föreställer en elev som antingen skulle kunna uppfattas som en pojke eller som en flicka och som skulle kunna representera olika etniciteter. Därmed signalerar bilden med eleven ett mångfaldsperspektiv. Ett sådant perspektiv överensstämmer med skolans värdegrundsdiskurs, där ingen ska utsättas för diskriminering på grund av kön, etnisk tillhörighet eller könsöverskridande identitet (Läroplan för gymnasieskolan [Lgy11], 2011). På så vis

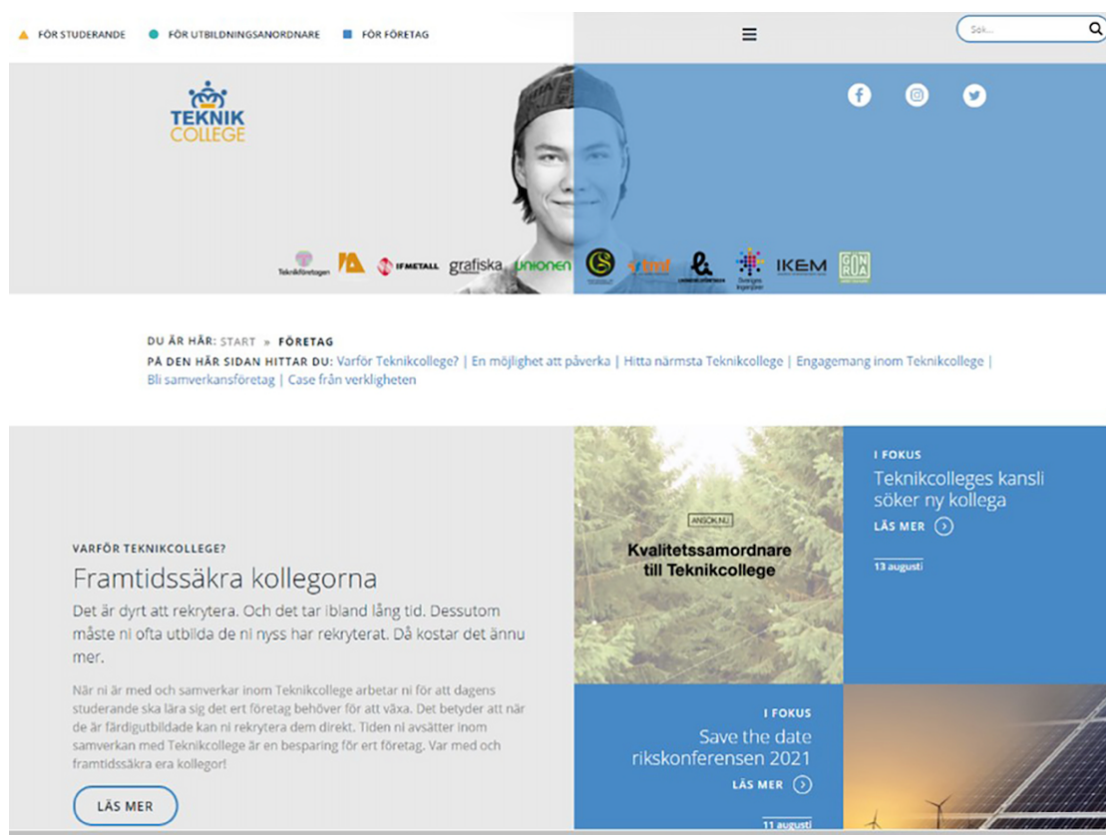
inkluderas flera kategorier av elever som presumtiva TC-elever på sidan riktad mot utbildningsanordnare jämfört med sidan som riktar sig mot elever.

Likväl uttrycks eleverna i behov av hjälp att välja rätt utbildning. Genom kvalitetssäkring i form av certifiering ska dessa elever välja en utbildningsanordnare som samarbetar med TC. Återigen framstår TC som den altruistiska hjälparen – nu i relation till skolhuvudmän. Hjälparen inkluderar inte alla utbildningsanordnare utan de som på hemsidan beskrivs vara kompetenta, professionella, kostnadsmedvetna, handlingskraftiga och ligga i framkant när det gäller grön teknik. Via de företagskontakter som TC har kan de TC-certifierade teknik- och industriutbildningarna hålla hög kvalitet, något som i sin tur sägs locka elever.

För den utbildningsanordnare som beskrivs är ansvar något centralt. Dels ges utrymme för eleven att utkräva ansvar i form av en utbildning som möjliggör drömmen om en karriär, dels ansvar att innehållet stämmer överens med det som industrin behöver. Att som utbildningsanordnare tacka nej till TC-certifiering framstår inte som ett alternativ inom denna ansvarsdiskurs. Vad gäller hur industriföretagen beskrivs på sidan som riktar till utbildningsanordnare är dessa beskrivningar i princip desamma som på webbsidan som riktar till elever. Beskrivningen breddas dock till att även inkludera teknik- och industriföretag på regional nivå med en profil riktad mot en hållbar industri genom framställning eller användning av grön energi. De företag som inkluderas i denna hållbarhetsdiskurs ges möjlighet att både påverka innehållet och organisering av gymnasiala utbildningar. Det stärkta inflytandet blir möjligt via en historisk och nutida föreställning om svensk industri som ryggraden i svensk ekonomi; en förutsättning för sysselsättning och för att, även i framtiden, kunna behålla levnadsstandard och välfärd. Detta antagande legitimerar i sin tur utbildningssatsningar som säkerställer tillgång till den kompetens som företagen kommer att behöva. Utifrån en industridiskurs som bygger på antagandet om industrins överordnade roll ter sig uppmaningen till utbildningsanordnarna om samarbete med TC även som ett ansvar inför framtida samhällsutveckling som inte går att fransäga sig.

Textanalys av industriföretagens webbsida: Samarbete som garant för tillväxt

Sidan nedan (Figur 3) vänder sig till företag och har samma grå nyans som de två tidigare, här kombinerad med en blå färg som tillsammans kommunicerar seriositet, pålitlighet och stabilitet. Genom bilderna på skog och alternativa energikällor, som även återfinns på sidan till utbildningsanordnare, signaleras en samsyn kring vikten av hållbarhet. Även på denna sida finns en elevbild i skärningspunkten mellan färgfälten. Bilden visar en axelbred pojke med kepsen bak och fram, därigenom tillskrivs den framtida industriarbetaren traditionella egenskaper såsom styrka och med en beredskap att fysiskt "hugga i".



Figur 3. Sidan på TCs officiella webbsida som riktar sig mot företag (Teknikcollege, u.å.c).

De idealiserade företagen

Texten som riktar sig till företag har, till skillnad från texterna som vänder sig till studerande och skolhuvudmän, enbart ett direkt tilltal. I ett text-*ni* tilltalas företag och företagare utifrån det gemensamma problemet kring rekrytering i syfte att lockas till samverkan med TC:

Det är dyrt att rekrytera. Och det tar ibland lång tid. Dessutom måste ni ofta utbilda de ni nyss rekryterat. Då kostar det ännu mer. (Teknikcollege, u.å.c)

Textens *ni* tilltalas i ett brett perspektiv kring ett problem som "alla" företagare sägs känna igen och instämma i. Textens *ni* har (ett ständigt) rekryteringsbehov som kostar både tid och pengar på grund av brist på arbetskraft. När textens *ni* väl finner en person att rekrytera har personen ändå inte de kunskaper som behövs, vilket leder till högre kostnader i form av utbildning. Lösningen på detta problem presenteras i texten som därpå följer:

När ni är med och samverkar inom Teknikcollege arbetar ni för att dagens studerande ska lära sig det ert företag behöver för att växa. Det betyder att när de är färdigutbildade kan ni rekrytera dem direkt. (Teknikcollege, u.å.c)

Lösningen för textens *ni* framställs i form av ett samarbete inom TC. Enligt textens avsändare gäller det inte om, utan när, företagaren ska anta erbjudandet om samarbete. Det sker således ett förgivettagande i texten att "alla" text-*ni* uppfattar detta erbjudande som för bra för att tacka nej till. TC erbjuder en lösning där nyanställda redan under studietiden får lära sig de kunskaper och kompetenser företagen behöver i syfte att producera för tillväxt. I erbjudandet finns ytterligare en aspekt som ska framstå som lockande för företagen:

Tiden ni avsätter inom samverkan med Teknikcollege är en besparing för ert företag. Var med och framtidssäkra era kollegor! (Teknikcollege, u.å.c)

Även om samarbetet med TC avkräver företagaren viss tid så omtalas desamma i termer av en "besparing för ert företag". Marknadsföringen som riktas till företagarna innehåller därmed starka ekonomiska incitament för att ingå ett samarbete – erbjudandet från textens avsändare handlar om att spara både tid och pengar.

I förhållande till företagen omnämns eleverna som dagens studerande samt med pronomen *de* och *dem*. Via dessa pronomen tilltalas ej eleverna direkt utan omtalas i termer av objekt. De identifieras i behov av att lära sig "rätt" kunskaper så företagen kan "rekrytera dem direkt". Eleven som går en utbildning på TC omtalas bli "framtidssäkrad", i betydelsen att inneha de kunskaper som företagen behöver. En TC-utbildad elev framställs bli en besparing i och med att *de*, med de rätta kunskaperna, omgående kan bidra till produktiviteten.

Företag som kravställare: Framtidssäkrad arbetskraft – tid är pengar!

Texten som vänder sig till företagare har, precis som texterna till studerande och utbildningsanordnare, framtiden som ett tema. Unikt är dock att här är tillväxt och vinst centralt.

I temat om framtiden är det självklart att företag ska växa. Tillväxten äventyras dock av svårigheten att rekrytera. Lösningen som presenteras i texten är att ta saken i egna händer och tillsammans med TC säkra tillgången på anställningsbar arbetskraft som kan gå certifierade utbildningar där den "ska lära sig det ert företag behöver för att växa". Via beskrivningen av rekryteringsproblematiken och behovet av egna utbildningar finns en implicit slutsats i texten i form av ett underkännande av den generella och icke-certifierade yrkesutbildningen. Den identifieras med innehållsliga brister, eftersom företagen själva måste färdigutbilda den arbetskraft som de rekryterar. Företagens intressen, tillsammans med underkännandet av yrkesutbildningen, kräver samarbete om certifierade utbildningar. En samverkan med TC framstår därmed i texten som något eftertraktat.

Beskrivningen av industrielever skiljer sig här mot de två tidigare webbsidornas beskrivningar. Eleven som skildras på bilden är en leende, axelbred pojke med kepsen bak och fram. Med sin certifierade TC-utbildning tillskrivs pojken ha de rätta kunskaperna som gör honom anställningsbar direkt efter avslutad utbildning, det vill säga att vara lojal, anpassningsbar, disciplinerad, stark och effektiv.

Diskursiv praktik: TC som en garant för tillväxt

På webbsidan som riktas mot företagen framkommer att bristen på anställningsbara medarbetare påverkar tillväxten negativt. För tredje gången träder den altruistiska hjälparen in, det vill säga TC. Med samverkan erbjuds företagen både en lösning på sina rekryteringsproblem i nutid och en möjlighet till framtida tillväxt, då erbjudandet inkluderar tillgång till medarbetare som exklusivt utbildats för de samverkande företagen. Talet om hur viktig företagens tillgång till kompetens är för att de ska växa rättfärdigas via en industridiskurs där tillväxt är centralt. I termer av konkurrensutsättning på en global marknad där företag konkurrerar om marknadsandelar måste medarbetare vara konkurrenskraftiga (Terning, 2016). Via en sammanflätning av denna globala diskurs och diskursen om den svenska industrins betydelse för samhällelig välfärd, samt diskursen om en hållbar industri, ter sig samverkan med TC som lösningen på matchningsproblematiken.

Sammanfattning och avslutande diskussion

Utifrån studiens syfte, att undersöka vilka föreställningar om industriarbetaren och industrieleven som skapas och upprätthålls i TC:s marknadsföring, har vi studerat de diskursiva strategier som Teknikcollege använder för att marknadsföra sig själva gentemot presumtiva elever, utbildningsanordnare och företag. Marknadsföringen drivs av en strävan att säkerställa kompetensförsörjningen inom tekniska och industriella yrkesbranscher. Marknadsföringen har också uppenbarligen som syfte att matcha olika typer av behov hos ovan nämnda målgrupper, vilka även diskursivt och visuellt tilltalas på ett differentierat sätt. Samtidigt visar analysen att webbsidornas marknadsföring bygger på skilda och ibland kontrasterande diskurstyper. Tabell 1 nedan sammanfattar studiens resultat.

Tabell 1. Identiteter som tillskrivs presumtiva elever, utbildningsanordnare och företag samt de diskurstyper som framställningarna på webbsidorna bygger på.

Marknadsföringsstrategier	Sida riktad till elever	Sida riktad till utbildningsanordnare	Sida riktad till företag
Elevidentitet	Den studiemotiverade flickan med karriärdömmar	Den nyfikna och kreativa eleven	Den starka och lojala pojken
Utbildningsanordnarens identitet	Möjliggörare	Ansvarstagande och kvalitetssäkrad	Möjliggörare
Industriföretagets identitet	Sveriges mest spännande och innovativa företag	Teknik- och industriföretag på regional nivå	Företag med rekryteringsproblem vilket försvårar tillväxttakten
Teknikcolleges identitet	Den altruistiska hjälparen	Den altruistiska hjälparen	Den altruistiska hjälparen
Diskurstyper	Industridiskursen Individualiseringsdiskurs Ansvarsdiskurs	Industridiskurs Skoldiskurs Ansvarsdiskurs Hållbarhetsdiskurs	Industridiskurs Globaliseringsdiskurs Hållbarhetsdiskurs

Den diskurstyp som används på alla tre webbsidorna är industridiskursen. Den flätas dock samman med andra diskurser vilket gör att innebörderna blir olika, tillika den interdiskursiva nivån. På webbsidan som riktar till eleverna är erbjudandet att välja en TC-certifierad utbildning det centrala budskapet. Här sammanflätas industridiskursen med en individualiseringsdiskurs i vilken elevsubjektet framställs som ett självstyrande, tävlingsinriktat och konkurrenskraftigt subjekt som i sin vilja att bli framgångsrikt väljer de utbildningar som möjliggör för eleven att nå sina mål (jfr Terning, 2016). På webbsidan som riktar sig till eleverna gestaltas TC-eleven som feminin och sportig via bilder, till exempel en hockeyspelare, ett subjekt som är aktivt, disciplinerat, vältränat och socialt kompetent (jfr Berge m.fl., 2019). Denna gestaltning av flickor avser därmed att försöka fjärma sig från de traditionella föreställningarna om teknik som maskulint, samtidigt som hockey är en maskulin sport. Eleven förväntas ha attraktiva personliga egenskaper, såsom individuell drivkraft och att kunna vara en lagspelare, snarare än ett genuint intresse för teknik. Flickan konstrueras här varken som ingenjör, mekare eller datanörd (jfr Mellström, 1999). Via industri-

diskursen, med dess innehåll om svensk industris betydelse för samhällsutvecklingen respektive betydelse att vara konkurrenskraftig på en global marknad, blir det logiskt att avkräva elever ett ansvar att välja utbildning mot teknik- och industribranschen.

På webbsidan som riktas till utbildningsanordnare är budskapet om ansvar centralt. Det avspeglas i en kombination av industridiskurs, skoldiskurs och hållbarhetsdiskurs. Här förutsätts utbildningsanordnaren både vilja ta ansvar för eleven, industrin och samhällsutvecklingen, genom text som anspelar på skolans ansvar för teknikutveckling, samhällsekonomi samt olika aspekter av hållbarhet. Den sociala hållbarheten förmedlas även via bilden av eleven, som visar på ett modernt inkluderande förhållningssätt avseende genus och mångfald. Skolans värdegrundsuppdrag blir således synligt här.

På webbsidan som riktas till företagen finns samma bilder som återfinns hos utbildningsanordnaren och som signalerar teknikutveckling och hållbarhet, men utifrån den globala diskursens marknadslogik blir det främst de ekonomiska aspekterna som framförs i texten. Via industridiskursen lovas också företag, genom anslutning till TC, skräddarsydd arbetskraft som kan bidra till tillväxt utan dyrbar upplärningstid på företaget. Den anställningsbara arbetskraften gestaltas här som produktionsfaktorer. Bilden av en kille med kepsen bak och fram antyder en traditionell mekare och därmed ett arbetarklassideal (jfr Mellström, 1999) i vilket eleven tillskrivs egenskaper såsom praktiskt lagd, i lägre grad intresserad av teoretiska studier, samt lojal och disciplinerad med en vilja att bli anställningsbar och anpassningsbar (jfr Terning, 2016).

Matchmaking: Ett spänningsfält mellan olika värde- och normsystem

Som relativt ny aktör inom utbildning måste Teknikcollege navigera mellan olika värde- och normsystem, och utveckla former och tilltal för att närma sig ungdomar, huvudmän i skolor och företag utifrån målsättningen att säkerställa kompetensförsörjning inom tekniska och industriella yrkesbranscher. Detta blir dels synligt på webbsidan, dels ännu tydligare i vår analys av vilka diskurstyper som TC bygger på i sin marknadsföring. Ett återkommande budskap i den studerade marknadsföringen är vikten av att utbildningsanordnare och företag måste dra åt samma håll. Det som ytterst står på spel är att locka fler grundskoleelever att söka sig till tekniska och industriella gymnasieutbildningar och helst också tjejer, samtidigt som samverkan mellan utbildningsanordnare och branschföreträdare inom tekniska och industriella yrken förtydligas. Även om det framstår som att det råder konsensus om att det är viktigt att bredda rekryteringen till tekniska och industriella utbildningar via TC så problematiseras inte de historiska och sociala grunderna till varför exempelvis så få unga kvinnor väljer dessa karriärvägar. Bildanalyserna illustrerar istället idealiserade bilder av nuet, alternativt en tilltänkt framtid, där elitidrottande kvinnor drömmer om en karriär

inom industrin eller där stolta flickor porträtteras i industriverkstäder. I sin marknadsföring till elever och till utbildningsanordnare avser TC förmodligen att luckra upp traditionella könsmönster för att attrahera fler sökande. Till företagen är det dock ett traditionellt maskulinitetsideal som lyfts fram. På så vis ställs motsatta identitetskonstruktioner mot varandra. Detta är i linje med isärhållandets logik och den hierarkiska logiken som Hirdman (1988) beskriver som underliggande i genussystemet. Enligt dessa logiker får traditionella ideal företräde då teknik- och industribranscher historiskt har starka kopplingar till maskulinitet (jfr Mellström, 2003). Detta ideal underbyggs dessutom av ekonomiska argument i TC:s marknadsföring riktad till företagen. Man kan säga att det sker en förskjutning från eleven som subjekt (på webbsidan riktad till eleven) till eleven som objekt (på webbsidan riktad till företagen), eftersom eleverna på den sistnämnda omtalas i termer av produktionsfaktorer för de enskilda företagens tillväxt och vinst. Den förskjutningen antyder en vilja att attrahera flickor för att rekrytera arbetskraft men den görs nödvändigtvis inte för att tekniksektorn ska bli mer jämställd. Detta är inte förvånande då rapporter visar att de ansträngningar som gjorts för att locka flickor främst sker inom STEM, det vill säga teknikbranscher (ingenjörsyrken), och att motsvarande ansträngningar inte gjorts inom industrin (Jämställdhetsmyndigheten, 2021).

Hållbarhetsdiskursen används på webbsidan som riktas till utbildningsanordnare och till företagen. I diskussioner om hållbar utveckling brukar även den sociala hållbarheten lyftas fram, exempelvis i termer av jämställdhet, vilket skulle kunna stärka flickors och kvinnors positioner inom industrin på sikt. I kombination med den datatekniska utveckling som sker av industrisektorn behövs inte heller den fysiska styrkan hos arbetstagarna på samma sätt som förr. Forskning visar dock att kvinnor i mansdominerade branscher inom industrisektorn fortfarande möter motstånd från manliga kollegor, trots denna teknikutveckling och den gröna omställningen (Abrahamsson m.fl., 2014). Flickor och kvinnor upplever att det är svårt att hävda sig i flera olika mansdominerade utbildningar på grund av de genusprocesser som sker i skolvardagen (Ferm, 2021; Hedlin & Åberg, 2013; Åberg & Hedlin, 2015) och de riskerar senare att mötas av ojämlika villkor och utsatta positioner i arbetslivet, något som utbildningen inte förberett dem för (Rönnlund & Tollefsen, 2025). Detta kan ses som resultatet av en strukturell könsordning med starka logiker som inte kan förändras så lätt (jfr Hirdman, 1988), och som döljs av den individualiseringsdiskurs som finns i samhället och som avspeglas i texten på webbsidan som riktas till elever. Individualiseringsdiskursen innebär att eleverna själva ska forma sina liv samtidigt som de måste hävda sig själva på en hård arbetsmarknad som styrs av företagens ekonomiska incitament och där fackföreningsrörelsen blivit svagare och löneklyftorna ökar (jfr Rönnlund & Tollefsen, 2025). Dessa villkor gäller inte bara klassiska industriarbetaryrken

utan även ingenjörsyrken där isärhållandets och hierarkins logiker innebär att kvinnor riskerar att granskas hårdare än sina manliga kollegor (Dockery & Bawa, 2018) eller utsättas för trakasserier av olika slag (Bridges m.fl., 2022). Kanske är det därför ingen slump att TC:s marknadsföring som riktas till elever skildrar hockeytjejer. Det är alltså inte feminina flickor som eftersöks, utan flickor med erfarenheter från lagidrott som kräver styrka, kraft och delvis våld. Marknadsföringen handlar alltså om att rekrytera vissa flickor men inte att ändra industribranschen i grunden.

Sammantaget finns många strukturella svårigheter som TC försöker överbrygga med sin marknadsföring. Traditionella rekryteringsmönster kan utmanas genom medvetna försök. Forskning visar dock att förändringar avseende maktrelationer relaterat till kön är svåra att genomdriva och att detta gång på gång misslyckas (Acker, 2009). Ekonomiska incitament är ofta styrande för om det ska lyckas eller ej, men mest avgörande är ändå yrkeskulturen och seglivade föreställningar om kön. Detta kan förklara jämställdhetsparadoxen där Sverige, trots jämställdhetsambitioner, fortfarande har en stark segregerad arbetsmarknad samt utbildningsval styrda av könsstereotyper (Tellhed, 2022).

Forskning om tekniska och industriella utbildningar visar i sin tur hur Teknikcollege, via sina certifieringar, kan påverka yrkeselevers förväntningar och framtidsförhoppningar men även leda till besvikelse och kritik när utbildningarna inte håller vad de lovar (Persson Thunqvist & Gustavsson, 2021). Marknadsföringen från TC osynliggör även hur bilden av framtidens industriarbetare kan krocka med nuet: Underliggande finns en diskursiv kamp mellan företagets långsiktiga respektive kortsiktiga strategier för kompetensförsörjning. I utåtriktad marknadsföring framhålls betydelsen av högutbildade teoretiska praktiker för att möta framtidens behov av spetskompetenser, och här försöker man överbrygga traditionella könsmönster. För att hantera det akuta rekryteringsbehovet av arbetskraft i nuet visar dock marknadsföringen att man faller tillbaka till den traditionella bilden av industriarbetaren.

Till detta kan läggas att tekniska och industriella yrken är mångfacetterade och att specifika yrken utvecklas i olika hastighet. Maktbalansen mellan småföretag, medelstora företag och storföretag inom industrin utgör också en utmaning som knappast ryms inom ramen för marknadsföringen. Vid en närmare granskning utgör alltså den matchmaking som TC försöker åstadkomma via sin marknadsföring en mismatchning avseende de tre målgruppernas intressen, aspirationer och möjligheter. I ett nordiskt perspektiv på yrkesutbildning kan marknadsföringen delvis ses som en strävan att öka yrkesutbildningens attraktionskraft och status i samhället. Det vore därför intressant att i fortsatt forskning ta ett samlat grepp kring vilka olika typer av marknadsföring som förekommer i olika nordiska länder och i samspelet med olika aktörer.

Författare

Maria Terning är universitetslektor vid Avdelningen för pedagogik och vuxnas lärande på Institutionen för beteendevetenskap och lärande vid Linköpings universitet, Sverige. Hennes forskning fokuserar den politiska dimensionen inom utbildning. Hon studerar hur samhälleliga och politiska föreställningar om skolelever skapar skilda förutsättningar för kunskapande, arbete och livschanser. Maria arbetar även som programkoordinator inom de korta lärarprogrammen med fokus på kvalitetsutveckling.

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Vocational students' literacy practices at a construction site: Nexus analysis of reading the blueprint

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Abstract

This study examines professional literacy practices in vocational education and training (VET) in Finland. The participants of the study are eleven 16–18-year-old students of technical building service and their vocational teacher, who work at the construction site located in the college's premises. The focus is on reading the ventilation blueprint at the work site: What kind of literacy practice is the blueprint and what kind of situated factors affect its' use? The data consist of field observation data at the work site and interviews with the students and they were analysed using nexus analysis. The results are discussed through three cycles of discourse: the discourses in place, the interaction orders, and the historical bodies of the participants. The results show that reading the blueprint is the prerequisite of performing the work task. Its' material substance is relevant, as it enables using embodied methods in the concrete working environment. Interaction around and with the blueprint has four significant activities: 1) Resolving a problem, 2) Organising the work, 3) Checking the work, and 4) Bridging theory and practice. Reading the blueprint requires a concrete environment of the work at hand, support of the learning community, and interaction.

Keywords: literacy practice, professional literacy practice, multiliteracies, nexus analysis, work site, manual work, blueprint



Introduction

Literacy is one of the key competencies for lifelong and continuous learning (European Commission, 2019). Today, literacy skills are seen as multiliteracies, as texts are increasingly comprising linguistic, visual, audio, spatial, and gestural semiotic systems (Bull & Anstey, 2018). A multiliterate person is, among other things, flexible in understanding and using traditional and new communication technologies, has a repertoire of literate knowledge and practices, and can engage with new texts in different contexts (Anstey & Bull, 2006). Thus, multiliteracies are the key competencies for self-development and lifelong learning in different domains of life, including working life and education.

In this study, multiliteracies are examined as professional literacy practices in vocational education and training (VET). In Finland, VET is part of compulsory upper secondary education until the age of 18, and it is popular among young and adult students (Organisation for Economic Development and Co-operation [OECD], 2023). VET is positioned at the junction of education and working life, as it includes practical training. The primary objective is to develop vocational competence and cultivate general competencies that are necessary in society, working life and further education (Finnish National Agency for Education, 2024). Literacy teaching in VET has two types of targets: the development of literacy skills needed in the vocational field, and the development of general literacy skills for all domains of life, including eligibility for higher education and lifelong learning. These general literacy skills are mostly acquired in the general subject called 'Communication and Interaction in the Mother Tongue, Finnish' which covers each vocational upper secondary qualification. In this subject, literacy teaching is combined with vocational content, but it is often completed without genuine integration into professional tasks. However, Pietilä and Lappalainen (2022) argue that the scope of this subject is too limited, and the content is market-oriented and used to meet work-related needs. Even if the literacy curriculum in this subject is mainly delimited to labour context and topics, professional literacy practices are mostly learned in vocational units. Visén (2020), who studied reading practices in vocational studies in Sweden, notes that they are complex and need to be explicitly taught by vocational teachers.

In this study, literacy practices are studied in the context of Finnish VET as part of a manual work task. The participants are 11 young students of technical building services and their vocational teacher. They installed a ventilation system at a work site located on the school campus. The research data consist of ethnographic data: field observation data and interviews with students. It soon became evident that there was one essential literacy practice at the core of the installation work: reading the ventilation blueprint. It was intertwined in all stages of the project and thus became a prerequisite for performing the task. In

this study, I focus on reading the ventilation blueprint as a professional practice. It is necessary to look not only at the sole action of reading the blueprint but also the manual work task and the social activity at the work site, as reading as professional practice means performing the actions of picking up tools and equipment, negotiating with other students, drilling, measuring, writing notes, cutting ducts, and so on. I use the concept of reading the blueprint because this concept is commonly used in the construction sector. However, the blueprint is a multimodal text that consists mainly of visual semiotic resources (Cope & Kalantzis, 2000), such as routes and lines, numbers, symbols, and abbreviations. Making meaning with the blueprint requires interpreting these modes and using specific professional knowledge, which is part of socialising in the vocational field. Thus, reading in this context cannot be equated with reading linear texts.

The research questions are as follows:

1. What kind of professional literacy practice is reading the ventilation blueprint in the context of work?
2. What kinds of situated factors affect reading the ventilation blueprint?

By answering these research questions, this study provides information about the role of acquiring multiliteracies in a technical blue-collar field, in which literacy skills are not as obvious as in white-collar jobs (Sulkunen et al., 2021). The results provide information about learning and mastering a complex, multimodal professional literacy practice that is entangled with manual work task and includes teamwork and support from other students and the vocational teacher.

Research theory and previous research

The theoretical framework for this study is based on a sociocultural view on literacies, where literacy skills are considered literacy practices defined by the professional community and field. These practices are intertwined with the community's goals and activities and are learnt in different contexts as part of social relationships and behaviour. Managing literacy practices in each situation means acquiring the discourses and social practices of the community (Baynham & Prinsloo, 2009). The literacy practices mean doing something with texts, and the ways of 'doing' are practices in different environments of the community. Lave and Wenger (1991) introduced the concept of 'community of practice' into a theory of learning as a social process that takes place within communities of people who share practices and learn by participating in them. In this study, the community of practice is the learning community of technical building services, which is formed by the students and the teacher who work together on a common

task and engage in the same practice: installing a ventilation system at the work site.

Professional literacy practices can be equated with disciplinary literacies. According to Moje (2015), each discipline has its own culture in which certain types of texts are read and written appropriately. In different occupations the literacy practices are formed by the nature of the work. In Sweden, Karlsson (2009) studied literacy practices in the occupations of construction worker, truck driver, shop assistant, and preschool teacher. The functions of reading and writing relate to different types of work depending on whether their orientation is towards things or people. The truck driver and the construction worker who work mainly with things, use smaller number of different texts than people-oriented occupations, but this doesn't necessarily correlate with the amount of reading and writing. As things are related with items of projects that can be completed, the use of texts is often related to organising the work: the beginnings and ends of projects. Construction ground workers read construction plans and specifications to plan the following day's work (Karlsson, 2009).

Karlsson (2009) also states that linear reading has little validity in the work of construction ground workers, whereas search reading, whereby the reader locates specific items or information within a more extensive text, is common among them. Similarly, Visén (2020) identifies the use of pendulum-reading as one of the central reading practices in Swedish VET. In pendulum-reading, the reader moves back and forth between text and task, and as examples of this, Visén mentions the students of Industrial Technology who work on building chairs from draughts and instructions and the students of Restaurant Management and Food who work with recipes. The effectiveness of pendulum reading is measured with how the understanding of the text materialises in process and product (Visén, 2020). Lensjø (2020), who studied Norwegian plumbers' and apprentices' vocational learning at the construction site and in a training agency, argues that action skills required in manual work are learnt through hours or sometimes even years of training and practice, and they contain 'embodied, tacit knowledge which is often hard to describe or to identify as explicit knowledge' (p. 151). She also notes that the plumbers are close to materials and systems on the construction site, where tools and materials look different from the plan. Therefore, the tacit communication between the craftsman and 'the thing' are often difficult to explain in words (Lensjø, 2020).

The participants of this study read the blueprint and perceive the work task at the work site, which is full of 'things', for example rooms, scaffolding, tools, and copies of the blueprint. The blueprint in itself is full of 'things' as well: lines, routes, arrows, numbers, written words, symbols, and abbreviations. Making meaning with these 'things' requires professional multiliteracies, which I consider as professional knowledge combined with embodied methods for a

restricted working environment in which the meaning making of the blueprint also requires the meaning making of the working environment and material artefacts. This meaning making is measured through the progress of the installation work, which is the shared goal of the community formed by students and the teacher.

Research data and methodology

The participants were 11 native Finnish-speaking students of technical building services and their vocational teacher. The students, who were 16–17 years old during the data gathering, could work after vocational qualification as plumbers or ventilation installers. The student-participants are referred to as students or participants. According to the principles of ethnographic data collection (see e.g., Lillis, 2008), data were collected using multiple methods in a natural environment, which in this study means field observation data gathered at a construction site and student interviews. The field observation was of a short duration and was designed to provide insight into the role of literacy in the working environment and the students' engagement in literacy practices at work. The interviews provided information about students' perceptions of professional literacy practices.



Image 1. A typical workstation at the work site on the campus.

The field observation data were collected over approximately 40 hours in nine days. The participants worked at a construction site on their own college campus, installing a ventilation system in new social facilities. The site was occasionally noisy and confined due to numerous rooms filled with scaffolding as the participants fixed the ventilation ducts in the ceiling. They worked in small teams of 2–3 students in many workstations. Typically, one student would stand on the scaffolding and one or two remain on the ground reading the blueprint, passing out tools, talking, or just waiting. The students mostly wore hearing protectors, which complicated oral interactions. Image 1 shows a typical setting at the work site: the teacher is instructing the students on how to read the ventilation blueprint. Three students are actively engaged, while others are sitting and waiting.

The data gathered during fieldwork comprised 40 pages of field notes, observation charts, and photographs taken on site. In the observation charts, I noted down the literacy practices the students encountered in the installation work: the concrete text, the function or result of the action, the people involved, and their agency or role. In the field notes, I wrote as much as possible about what happened, but because of the noise and space constraints, I usually observed only one workstation at a time. I transcribed the field notes after each observation session and pseudonymised the participants. Six months following the field observation, small group interviews were conducted with the students in groups of 2–3 students each. As they worked in teams at the work site and interacted with each other at work, they were also interviewed in small groups. In the interviews, the participants complemented each other's talk, yet the interviews consisted mainly of question-and-answer sessions rather than in-depth group conversations. The interviews were conducted in a semi-structured manner (e.g., De Fina, 2019), which enabled further questions and following interesting topics even though there was a structure to follow with questions on literacy practices and eight photos from the work site. The photos stimulated talk about literacy practices and helped the participants recall the work site. The interviews were recorded and then transcribed, which produced 60 pages of anonymised transcription. In the interviews, the objective was to provide a platform for students to articulate their perceptions regarding their activities at the work site. It should be noted that no interview was conducted with the teacher, which was a deliberate decision; the studies conducted in VET frequently incorporate teacher interviews and observational data, yet the voices of the students are often absent. For this article, I have translated the excerpts from the field notes and interviews into English. Additionally, the original interview transcripts have been simplified. For instance, instances of overlapping speech have been removed to make the excerpt more comprehensible.

The ethnographic orientation is compatible with the sociocultural perspective on literacies, where literacy practices mean doing something with texts in a community. I have a background as a literacy teacher in VET and many years of working experience. During those years, I have heard countless times from students that literacies do not relate to manual work tasks. Therefore, as a researcher, I wanted to see what the participants do with texts in a working environment. As a teacher, I have gained contextual knowledge about Finnish VET and its day-to-day operations, particularly those related to the literacy curriculum and its incorporation into the classroom setting. However, I didn't have a deep understanding of literacy practices outside my classroom. The participants already knew me as their literacy teacher, when I started my field observation. Weinreb et al. (2018) propose that familiarity is a continuum, where on one end are insiders who are familiar with the community, and on the other end are outsiders who represent the 'stranger interviewer' norm. Their study showed that the participants disclosed more information to insiders and were less likely to lie to them than to outsider interviewers. On this continuum, I would be somewhere between an insider and an outsider. I knew the students and the vocational teacher, but I was unfamiliar with the work site and the installation work. I will analyse the possible impact of my dual role on the results of this study in the discussion of this article.

The data were analysed using nexus analysis, which is a multi-method research strategy that can use the tools of ethnography, critical discourse studies, and interactional sociolinguistics as appropriate (Scollon, 2001; Scollon & Scollon, 2004). In this study, nexus analysis is aligned with the ethnographic orientation both in terms of the data collection and analysis methods. Nexus analysis is useful in this research because it is multifaceted; it identifies how literacy practices are defined communally but are also influenced by an individual's past experiences. In linguistics, it has been applied especially to second language research (e.g., Leskinen, 2023; Strömmer, 2016, 2017). In nexus analysis, the analysed phenomenon is the nexus of practice, which Scollon and Scollon (2004) define as 'the social actions and actors which are crucial in the production of a social issue and bringing about social change' (p. 153). In this study, the nexus of practice is reading the ventilation blueprint. The data were analysed mainly through ethnography and data-driven content analysis. In the analysis of discourses in place, I used the tools of discourse analysis.

The research process is divided into three phases. The first phase involves engaging in the nexus of practice, in which the researcher identifies the crucial social actions related to the nexus. In this study, engaging with the research topic started years ago because of my vocational educator's background, but the nexus analysed in this article, reading the blueprint, appeared during the field observation. The second phase is the actual analysis phase, navigating the nexus

of practice, in which the researcher focuses on the connections, trajectories, and links that exist in the different data (Scollon & Scollon, 2004). The nexus of practice is examined at both micro and macro levels, with the micro level looking at how people interact in each situation and the macro level examining the broader relationships and factors that influence the whole. It is necessary to zoom in and narrow down to a clear focus as the centre point for nexus analysis. Through the analysis of this centre point (i.e., the nexus), the researcher can zoom out to scale the whole picture (Pietikäinen, 2012). In this study, I focus on one specific literacy practice in one vocational field to examine the role of multiliteracies in the context of acquiring professional literacies in blue-collar work. The third phase is changing the nexus of practice, where the researcher reveals the links, connections, and trajectories in social action where social change becomes possible (Scollon & Scollon, 2004). The results of this study provide knowledge that can serve as a basis for the development of teaching and learning literacies in VET and in the context of work in general.

The nexus of practice occurs in the intersection of cycles of discourses: the discourses in place, the interaction order in the social action, and the historical bodies of the participants (Scollon & Scollon, 2004). These three cycles of discourse cannot be entirely distinct or precisely delineated because the nexus of practice in the data appears at their intersections and junctions. Scollon and Scollon (2004) base their definition of discourse on Gee's (1992, 1999) distinction between two levels of discourse: discourse – Discourse, where 'discourse' refers to the ways in which people interact and communicate and 'Discourse' to broader social practices and multimodal semiotic systems that people implement as members of different communities. The discourses in place reveal the discourses and perceptions within the literacy practice of reading the blueprint and their meaning in the context of VET and as part of blue-collar work. Conversely, the interaction order, which originates from Goffman's (1983) views on how interaction is organised in different situations, provides information about the activities intertwined with reading the blueprint and the roles of the participants. The third cycle of discourse, historical bodies of the participants, means the cumulated experience, memories, and accustomed practices which affect their actions and participation at the work site. In the analysis of the historical bodies, it is possible to show the social patterns and registers that create 'the template' for this practice (Scollon & Scollon, 2004).

However, the historical bodies of the participants are not broadly analysed in this article because they are seen more as a general background of students in the technical field of VET.

Results

I present my results through the three cycles of discourse: discourses in place, interaction order, and participants' historical bodies.

Discourses of reading the blueprint at the work site

The blueprint was a visual text full of visual modes and symbols. It contained some written text, but most importantly, it was an image that showed how the ventilation system should be installed. Before arriving at the site, the participants had already been reading it with the vocational teacher both in distance and face-to-face teaching.

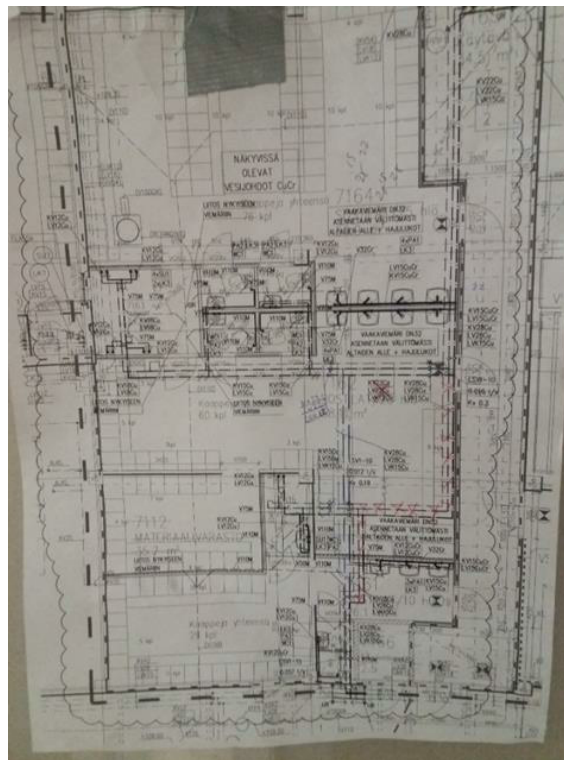


Image 2. The ventilation blueprint is full of visual modes.

The discourses of reading the blueprint at the work site relate to the concrete task and the material environment. To understand its modes, students should master professional multiliteracies: the interpretation of visual modes and written texts related to vocational content. Image 2 shows the visuality and the multimodality of the blueprint. In the work task, the blueprint's modes should correspond with the actual world: abbreviations should turn into tools and other equipment, dimensions into the lengths of the ducts to be installed, and so on. Reading the

blueprint functioned as a means to organise participants' work at the site: it was simultaneously the list of tools and equipment, working instruction, and an image of the desired outcome of the entire project. Therefore, it contained information over a large timescale, from planning the work until controlling the finished work. The blueprint was a material object: an A3-sized blueprint – or in fact, multiple copies of the same blueprint – at the work site. The copies were attached to walls or scaffoldings with tape, and they were often moved to places where the participants needed them: when they were drilling the ducts to the ceiling, they could fold the blueprint and take it up to the scaffolding, and when they needed help from the teacher, they could take it to the teacher. They would even joke about the paper by taping it on somebody's back, as in the next excerpt of field notes (day 5).

The two boys called Ville and Timo read the blueprint but then ask help from the teacher. The teacher doesn't hear them at first, so the boys take the blueprint off the wall and tape it to Ville's back. The boys march over to teacher to ask for advice. The teacher jokes around, takes the plan, and tapes it to the wall.

The blueprint was used similarly to a tool: it was taken to where it was needed and used to solve the problem. By taping the blueprint on Ville's back, the blueprint 'walks' to the teacher when the students need help. As different students used and moved the same copies from one room to another and up to the scaffolding, the copies often went missing. The teacher would be the one seeking them. When students asked him for help, he would often reply: 'Where's the picture?' This way, the teacher instructed the students to look for the solutions in the blueprint. At the work site, the teacher referred to the blueprint with more official terms of 'the document' and 'the picture(s)', whereas the students talked about 'the big paper' or 'the white paper'. This implies that the teacher considered the blueprint an official document received from a higher authority. In the working culture of the construction site, workers perform manual work through instruction that comes from elsewhere. By using more official terms, the teacher also mediates the tacit knowledge of the dichotomies in the field.

Because of the material substance of the blueprint, it was possible to use embodied methods when reading the blueprint, such as tracing the lines with a finger or a pen, pointing at some detail in the blueprint to focus one's gaze, pointing spots or places in the working environment, or measuring. The students often measured lengths of the ducts or distances with a measuring tape, as in Image 3.



Image 3. A student using measuring tape with the blueprint.

Measuring was a concrete action, followed by calculating the proportions, before cutting the ducts or drilling the supports into the correct places.

In the episode of the next excerpt from the field notes (day 5), the teacher explicitly instructs one student, Timo, to use an embodied method, tracing the blueprint's lines with his finger, to find out the sizes of pipe collars. This happened after the students have taped the blueprint in Ville's back and gone to ask help from the teacher. First, the teacher asks Timo and Ville multiple questions about the blueprint.

Timo tries to find a specific marking on the blueprint but cannot find it. The teacher advises him to run his finger along the line on the blueprint. The boys continue searching but cannot find the marking. Finally, the teacher points to one spot on the plan: 'Could it be there?' The result of a long (about 10 min.) discussion: they figure out what kind and what size of pipe collars are needed.

In the interview, Timo says that he doesn't remember this specific situation of the teacher instructing him to trace the lines with his finger, but he says that 'he [the teacher] always says things like that' and that it was 'probably useful'. In this case, the teacher wants him to find a certain symbol, which is difficult to find. We don't know, if Timo remembers what the symbol looks like or if he just can't locate it. At the end, the teacher spots the correct place in the blueprint. In this meaning-making process the professional knowledge and the 'things' of the material working environment combine through the embodied method of tracing the lines with a finger and interacting with the teacher. Similarly, Lensjø, (2020), who studied Norwegian plumbers' learning at the workplace, argues that

plumbers are extremely close to materials and systems at the construction site, where tools and equipment look different from the plans and progress on paper. Skilled workers can apply the plans to the reality of the environment (Lensjø, 2020).

During the installation work, the students performed a vocational unit called 'Installation of Ventilation Systems' (OPH-2790-2017). The vocational requirements (valid until July 31, 2021) demanded 'collecting the materials in accordance with *the list*' and 'carrying out installation work in accordance with *drawings and specifications*', 'making *material and labour cost calculations* and collecting materials according to *a catalogue*' and 'carrying out routine installation work on ventilation systems in accordance with *drawings and specifications*'. The application of italics serves to denote texts that are referenced by name in the curriculum. The blueprint plays the roles of 'the drawing', 'the specification' as well as 'material catalogue', and thus, literacy practices are embedded inside the professional practices. Instead, the literacy skills are not specified: What kind of professional multiliteracies do the participants need to 'carry out installation work in accordance with drawings and specifications'? Nevertheless, the teacher was aware of the meaning of reading the blueprint, as he used resources in teaching the participants to read the blueprint before starting the installation work and at the work site, even if he was busy most of the time. The students told in the interviews, that they had had multiple lessons, where the teacher explicitly taught the symbols and other semiotic resources of the blueprint. The students had also used colours and wrote down notes during the lessons.

Interaction order of reading the ventilation blueprint

Reading the ventilation blueprint requires interaction with other students and the teacher. This interaction has four different activities at the work site: 1) resolving a problem, 2) organising the work, 3) checking the work, and 4) bridging theory and practice. These activities relate to the blueprint's different roles as the plan, the work instruction, the list of tools and supplies, and the desired outcome. Karlsson (2009) argues that construction ground workers use literacy practices to organise their work. In this study, this is evident in activities of resolving a problem, organising the work, and checking the work. The most typical activity during the field observation was that the participants encountered a problem in the installation work and tried to resolve it by themselves, sometimes for more than an hour, as Timo said in the interview. Then they would try to ask for help from other participants and eventually go to the teacher, who would turn to the blueprint. The following excerpt from the field notes is from the first day of the field observation.

A typical recurring situation in teaching is when the students ask for help, the teacher takes the ventilation blueprint, and they look at it together. This is repeated

at least five times in a couple of hours. The students clearly still need the teacher's help in interpreting the blueprint at the stage of fixing and cutting the ventilation ducts.

In this activity, the direction of the interaction varies: The students interact with each other and the blueprint and with the teacher and the blueprint. This interaction originates from the blueprint and leads to the blueprint: The students talk with each other and with the teacher when they cannot read the blueprint by themselves, and the teacher usually takes the students back to the blueprint to look for answers in it.

In Figure 1, the arrows symbolise the direction of the interaction in the interaction orders of four activities. The green triangles represent the students, the orange triangle is the teacher, and the brown rectangles represent the blueprint. As the students' working team combinations might vary at the work site, the number of students' triangles in Figure 1's activities also differ.

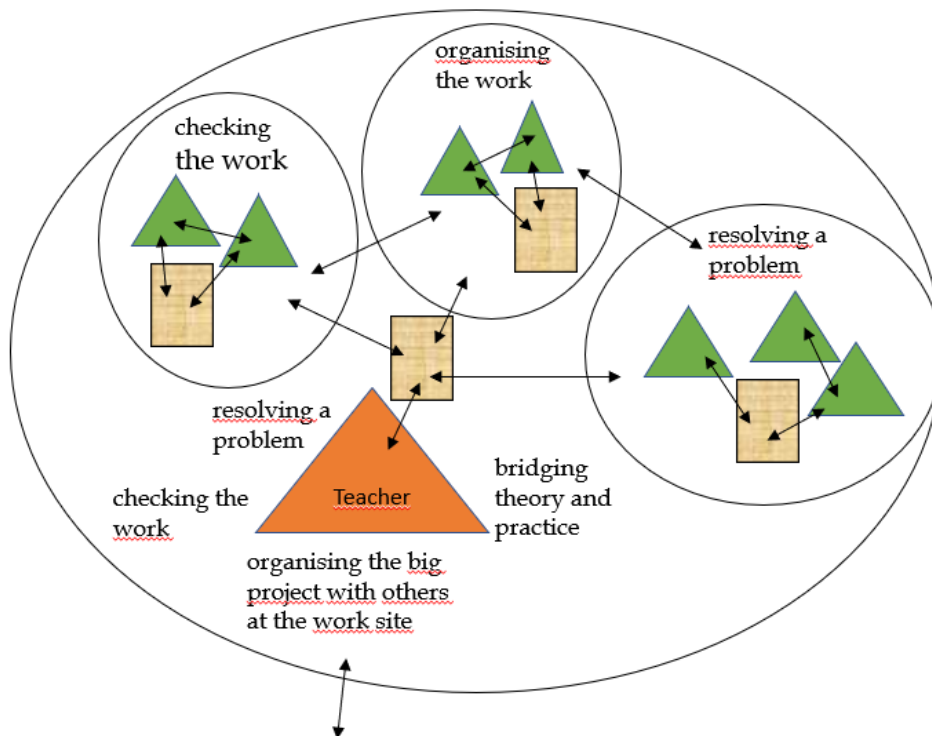


Figure 1. Interaction order of reading the blueprint.

Resolving a problem and organising work both include many interactions and negotiations – especially if there is something new going on: at the beginning of

the day, after lunch, or when a new working phase is about to start. The role of the blueprint is to bring the participants back to the agenda, as they work in teams to contribute to a project with several phases and have the responsibility of progressing to a certain phase during the day. While the participants organise their work at their workstation, the teacher plays the role of managing the big project as he interacts with the entire work site, including the students and teachers from other classes and fields. Two participants, Jenna and Anton, say in the interview that they do not find it difficult to organise their work themselves. Jenna talks about reading the blueprint as the most natural thing: 'You just look at the blueprint what isn't installed yet, so you continue from there'. The participants in this study did not interact with other students or teachers as they were bound to their own class and even more to their small working team and their own teacher. Thus, the teacher has the role of a site manager. Both in observation data and interviews there are multiple occurrences on situations, in which the students don't want to negotiate with students from other fields or groups, yet the teacher tries to encourage them to do this as a practice of the work site. This excerpt is from the field notes from day 8.

Jenna and Anton should go and ask the painter about the scaffolding. Jenna: 'You go; I don't dare.' Anton: 'No.' The teacher arrives and asks the students: 'Are you really afraid to go and ask?' He takes Anton by the hand and leads him over to the painting student to discuss the scaffolding.

In this case, the teacher actually takes Anton's hand to take him to talk with people he doesn't know. This way he suggests that talking to other people at the same work site is an essential part of working.

The third activity, checking the finished work, has two different aspects, and the direction of the interaction is reversed. The blueprint is not necessarily materially present every time, but it lies in the background as the correct result of the work. When the students start negotiating with each other, their aim is to check the work, such as whether the duct or support is set in the right place. Instead, when the teacher begins the discussion, he often tries to motivate them to work more effectively by checking to see what they have done and instructing them how they could continue. In the next excerpt of field notes (day 9), the teacher tries to make Anton and Aleksis work.

Anton and Aleksis are fooling around on Friday mood. The teacher asks them how they plan to proceed with their work, then they discuss the measurements. Aleksis sneaks away somewhere. Anton doesn't want to answer, but asks where Aleksis is. 'We don't need Aleksis here, you're all in the same boat,' the teacher replies. Anton: 'Yes, we do!' Teacher: 'Where was the picture?' The teacher finds the blueprint and goes over to it. He shows the measurements on the picture and explains how to proceed.

In the excerpt above, the teacher uses the blueprint to bring the students back to the work task. At first, they don't want to continue without Aleks, but the teacher's comment 'You're all in the same boat' emphasises the community's shared responsibility to achieve the common objective.

The fourth activity, bridging theory and practice, is educational, whereas the other activities also occur on a real work site outside the educational context (Söderlundh & Kahlin, 2022). Its purpose is to build a bridge between theory and practice through 'the lessons', as the teacher calls them. Compared with the three functions mentioned previously, the teacher was the only active participant with the blueprint in the background, as the interaction was directed from the teacher to the participants. They had studied reading the blueprint in theory before starting to work on the site, and through these 'lessons', the teacher built an educational bridge between these learning sessions, the manual work task and the actual environment. The teacher conducted this with some participants when they were looking at the blueprint together, but occasionally he would also gather all the participants in one or two groups and hold a 'lesson'. The following is an excerpt of the field notes (day 8), when he connected a material object – a fire valve – to the moment they had studied reading the blueprint:

The teacher arrives, he announces that it is time for the lesson. He picks up a fire valve and starts asking the boys questions about it: 'What is this?' and so on. 'Do you remember when we looked at the pictures?' Construction workers arrive at the workshop. It starts to get noisy. The lesson is interrupted when the surface treatment teacher wants to discuss something with the teacher. [...] The teacher continues the lesson, and the boys listen. Once he has finished, he moves to the other side of the room and holds a similar lesson there. The students swing on the scaffolding and listen. Mika, Veeti, and Samu are on the scaffolding. 'It's nice to sit here,' says Ville. The boys discuss installing a fire valve, and the teacher comes over to offer some advice.

Learning literacy practices are effective when they relate to the task and are supported by a professional at the appropriate time (Black & Yasukawa, 2011; Casey et al., 2007). The teacher's 'lessons' occurred when the participants had a problem, were about to proceed to a new phase in the work task or, as in the excerpt above, had to use a new tool or equipment. The participants of this study stayed for months at the work site without theory lessons, but the teacher brought theoretical knowledge of the blueprint at the site through his interaction.

Historical bodies of the students

The historical bodies of the participants were not deeply analysed in this study but were viewed through two different students to illustrate the participants of this study. I applied a nexus analytical approach to historical bodies, in which I first zoomed in on two participants, Timo and Jesse, and then briefly zoomed out to frame the general backgrounds of students in technical fields in VET (Pietikäinen, 2012). I chose the historical bodies of Timo and Jesse to demonstrate

students' diverse orientation towards reading the blueprint, because they talked differently about reading the blueprint and working. Timo is one of the key participants of the study, as he was active both at the work site and in the interview. At the work site, he often needs the teacher's and his fellow students' help to manage the work at hand and understand oral instructions. He says in the interview that he needs help from other students as he doesn't hear the teacher's instruction.. In the interview I talked with two students who have the same name, Ville, and Timo.

- Timo: I'll always do I come and do the physical work every now and then.
Ville 2: Yeah.
Me: Oh so you're like a hero [laughing].
Ville 2: We like plan and then to Timo.
Timo: I'm not a fucking engineer.
Ville 1: Then to Timo you just have to say precisely what to do.
Timo: 'Cause I don't know at what phase you hear those things that the teacher explains to you [laughing].
Me: So you feel like you are not somehow hearing.
Timo: Yes I do [...] like I haven't heard – like – I really am listening the teacher is like Timo you never listen [imitates the teacher's voice] but like I feel that I am not always hearing that thing like.
Me: Mm.
Timo: Yeah.
Me: So what do you do then you ask these others.
Timo: I ask these they say Timo are you stupid 'cause you don't listen.

In the interview Timo argues that he is not 'an engineer'. With regard to Timo, his team members say that they have to tell him precisely what to do. The typical distinction in the construction sector is that 'engineers' make the plans, while blue-collar workers perform the work through instructions. Timo positions himself as a 'worker' who does the physical work, rather than an 'engineer', who plans the work. In the interview Timo also states that reading the blueprint was difficult because 'there was so much stuff in it'. The teacher instructed students to read the blueprint and to use colours to perceive its markings. Timo says in the interview that face-to-face teaching worked more effectively for him than distant teaching. In Koivisto's (2013) study, some of the pupils in English lessons resisted to take an active role as learners due to their historical bodies as language learners. In the interview, Timo speaks negatively not only about receiving instruction at school, but also about his summer work at a construction site. He says that he couldn't ask anything, as the more experienced workers treated him like he was stupid and questioned why he was working there. In the interview, Timo uses the exact same word 'stupid' when he speaks about what two other participants might think of him. However, with the support of the teacher and other students, Timo is active at the work site, and he can proceed in the work task. Since I don't have data about Timo's school history, it is impossible to say,

why he considers himself as someone who only does the physical work and can't hear the instruction, but this may be due to his experiences both at school and at work.

Conversely, Jesse seems able to manage the blueprint. He usually works independently with two other students, and like Timo, he receives support from his team. He says in the interview that he learned more at the work site environment than in the school workshop because they did 'real work' there. He also says that he learned to read the blueprint during distance teaching but became most proficient at reading it while working. When asked if the participants felt that they could read the blueprint at the work site, Jesse replied without hesitation: 'Yes, we can'. He had also had a summer-time workplace, and he said that compared to school, people work harder in 'real' companies. Jesse was headed to practical training after the interview, and he was motivated to start working. Unlike Timo, Jesse didn't have the dilemma of asking for help or listening to instructions, but he felt confident about reading the blueprint, the work task, and working in general.

Students of technical building services in VET in Finland do not necessarily have a background as high-achieving students, as the field has low entry requirements (Education Statistics Finland, 2024a). Technical fields in general are dominated by male students (Education Statistics Finland, 2024b), which can also be seen in this study, with 10 male participants and only one female participant, Jenna. In this study, I do not focus on gender, but it is worth acknowledging that boys underperform in literacy in comprehensive school (Schleicher, 2019), and these boys most likely continue their studies in VET (Hakkarainen, 2016). Nevertheless, Timo and Jesse show that there are many kinds of students. Learning to read the blueprint in relation to work depends on the students' background and skills and on their vocational motivation to master the work task and become professional. As shown in Timo's case, other students can play an essential role in supporting students who need more guidance than the teacher is able to offer.

Discussion

The results of this study emphasise the importance of the material working environment and the support of the community in reading the blueprint at the work site. The material format of the blueprint – the big paper – allows for diverse forms of interaction, as the students and the teacher can easily move the blueprint and gather around it to talk about the work close to the tools, scaffolding, channels, pipes, and other 'things'. Therefore, the results presented in this article confirm Lensjø's (2020) findings that plumbers and other manual labour workers are, in fact, inside the practice. Similarly, the literacy practice is inside the

professional practice both in terms of practical work and the demands of vocational curriculum. Learning to read the blueprint is inseparable from the manual work task and is measured with how the work proceeds. Reading the ventilation blueprint requires pendulum reading (Visén, 2021) and search reading (Karlsson, 2009), since it combines the abstract plan with the concrete environment. Therefore, learning a complex, professional literacy practice can happen only in the concrete working environment, inseparable from the manual work task. This should be taken into consideration in the implementation of VET.

It is evident that the students need support from the teacher and other students to read the blueprint and complete the task. This was possible because the work site was located on school campus, there was no time pressure, and all participants were working on the same task together. This may not be the usual situation in actual workplaces where people often work independently with limited resources (Söderlundh & Kahlin, 2022). VET in Finland has become increasingly work-oriented and competence-based (Pietilä, 2025), which means that the students proceed according to an individual programme. Thus, they may not have a learning community or shared tasks. In addition to this, VET increasingly includes practical training in companies, where there is no teacher or co-workers available all the time. According to the results presented in this article, the shared task and the support from the learning community was essential at the work site. The teacher's role is to teach students how to carry out installation work and read the blueprint, as well as socialise them to work on site. This includes showing them example about respecting the blueprint as the official document and encouraging them to resolve problems, plan their work, and negotiate with other people on site.

There are factors that may have influenced the results of this study, most of all my background as a vocational literacy teacher. My previous knowledge of VET impacted the design of this study, but my knowledge and perceptions on the participants' attitudes and skills may also have affected what I perceived, what I wrote in my notes, and what I asked in the interviews. The students knew me as their literacy teacher and the vocational teacher as his colleague, which necessitated careful deliberation about my dual role and ethical concerns at each stage of the research, from obtaining informed consent to analysing and reporting data. My background as a teacher is evident in the research data, as the participants in the field called me 'teacher'. In the beginning of the interviews, some of them hesitated to answer my questions about literacy practices, which could be due to the fear of giving a wrong answer to the teacher. When reviewing the interview transcriptions critically, the participants probably did not give any wrong information, but they also did not tell me all that there was to tell. This could have been caused by my dual role but could also be related to the inconvenient topic of literacy practices in the context of work. Conversely, being

familiar with the participants and being their teacher had some positive consequences: they didn't seem to pay much attention to my presence at the work site, they talked to me frequently and allowed me to access the field at any time.

The interviews were conducted when the work site was almost finished, which may have affected what the participants remembered about working on the site and reading the blueprint. As the students didn't speak eagerly about the blueprint – or any other literacy practices – in the interviews, most of the data presented in this article consist of field observation notes. The field notes contain transcriptions of conversations between students and the teacher. As these were written down by me at the work site, they should be examined for their content rather than being read literally. I decided to document the interaction this way because the work site was too noisy for audio recordings.

This study was conducted in one vocational college in one field within one community. The ventilation blueprint is a technical drawing, and most of its semiotic modes and symbols are generalisable to technical drawings in different fields. Conducting the study in a work site environment but in an educational setting produces perspectives of both education and work. They can be applied especially in technical fields in which literacy practices are embedded in professional practices and combined with professional tasks. However, further research is required on the specific elements and procedures of work-related literacy practices to develop an effective pedagogy for VET and other professional settings.

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Notes on contributor

Anne Kolehmainen is a doctoral researcher at the University of Jyväskylä, Finland, in the Department of language and communication studies. She has over ten years of experience working as a Finnish and communication teacher at a vocational college. Her doctoral research examines how vocational students learn and develop literacy skills in relation to manual work tasks.

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Transition from school-based to workplace-based training: Student, teacher, and trainer perceptions of the interrelation of school-based and workplace-based training

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Abstract

This article examines students' transition from school-based training to workplace-based training in vocational education and training (VET). We analyse how students' experiences of this transition are shaped by perceptions of the relationship between school-based and workplace-based training among the students themselves and their teachers and workplace trainers. The theoretical framework includes the concepts of narrative, repertoire, and horizon. The empirical material consists of interviews with students, their teachers, and workplace trainers. The analysis identifies two student narratives during school-based training: 'I want to use the knowledge I have acquired at school during workplace-based training' and 'I want to put school behind me'. During workplace-based training, these are mirrored by two narratives in which school-based training becomes either more or less meaningful. Two teachers' positions and two workplace trainer positions are also constructed, reflecting divergent views on the relevance of school-based education and training. By juxtaposing student narratives with teacher and trainer positions, the analysis highlights conditions shaping either smooth or more disjointed transitions. By examining how students' narratives are shaped through encounters with teachers' and trainers' positions, the study contributes to a more nuanced understanding of meaning-making processes in transitions between school-based and workplace-based training in VET.

Keywords: transition, interrelation, school-based training, workplace-based training, student, teachers, trainers



Introduction

The transition from school-based education and training to workplace-based training and the interrelation of the two learning contexts is a recurrent theme within research on vocational education and training (VET) (Akkerman & Bakker, 2011; Enochsson & Kilbrink, 2025; Johannesen et al., 2022; Louw & Katznelson, 2019). These studies have mainly focused on whether students perceive a clear interrelation between what they learn at school and in the workplace, but without exploring how they make sense of this interrelation (Aarkrog & Wahlgren, 2022). Furthermore, there is scant research concerning transitions embedded within dual VET systems, particularly the transition from school to the first period of workplace-based training.

This article concerns VET students' transition from school-based training to the first period of workplace-based training in VET. Inspired by Ulriksen et al. (2019) and based on interviews with students both at school and in the workplace-based training, we identify students' narratives about the interrelation of school-based education and training and workplace-based training during their transition from school-based education and training to the first period of workplace-based training. Furthermore, we examine how teachers' and trainers' perceptions of this interrelation can shape their students' narratives.

The study presented here was motivated by the fact that a substantial share of the relatively high dropout rates in Danish VET – 36% across programmes (Schoop et al., 2023) – occurs during the transition to the first period of workplace-based training, accounting for around 60% of all dropouts (Aarkrog & Kamstrup, 2023; Erhvervsskoler og Gymnasier, 2023). The study therefore aims to inform and inspire efforts to strengthen this transition and, consequently, reduce dropout.

Vocational education and training (VET) in Denmark is characterised by a dual system in which students alternate between school-based education and training and workplace-based training. Workplace-based training takes place in a variety of settings, including private companies and public-sector organisations. A typical VET programme begins with a 20-week basic course at a vocational college, after which students enter the main programme, in which they alternate between periods at school and periods in workplace-based training, with the structure and duration varying across programmes. Each period of workplace-based training typically lasts six months or longer.

Research on the transition from school-based to workplace-based training

A number of studies have explored the transition from school-based to workplace-based training through the concept of boundary crossing (Akkerman

& Bakker, 2011; Berner, 2010; Tanggaard, 2007), employing boundary objects to support the students' transition (Enochsson & Kilbrink, 2025; Nore, 2015; Riis, 2023). In a literature review, Akkerman and Bakker argued that boundary crossing involves sociocultural differences that lead to discontinuities in actions and interactions (Akkerman & Bakker, 2011). However, they also argued that this discontinuity encompasses a learning potential. Thus, the reviewed literature points to four mechanisms that can support learning during boundary crossing: *Identification* of differences between the practices, conceptualised as either 'othering' or legitimising the coexistence of two practices; *coordination*, which includes communicative connections between the practices, translation efforts, enhancing boundary permeability, and routinisation; *reflection* on similarities and differences between practices, including taking each other's perspective; and *transformation* that leads to profound changes in practice or to the establishment of a new in-between practice, sometimes conceptualised as boundary practices (Akkerman & Bakker, 2011, pp. 142–146). In our study we have focused on identifying differences not between practices, but among students, teachers, and trainers.

Boundary crossing can involve negotiating a new identity in new communities of practice, crossing from the familiar school to the unknown workplace, (Tanggaard, 2007). The change of identity often concerns the shift from student to worker (Brockmann & Laurie, 2016). For students who have had negative learning experiences at school, becoming an apprentice in a workplace can offer a new, more positive learner identity (Hegna, 2019) in which the students can experience success, mastery, and a sense of belonging (Tårnesvik & Schmid, 2022). Thus, students often perceive the shift to a workplace identity as a positive development.

The crossing or transition is perceived as a process that needs preparation and guidance. One way of preparing the students is to acquaint them with the world of work before they begin workplace-based training. Early acquaintance with the workplace does not only serve as preparation for workplace-based training but has also beneficial impact on retention (Schoop et al., 2023, p. 53) and on the students' motivation for school-based training (Baartman et al., 2018; Berner, 2010). Another way of preparing for and supporting the transition is to involve the use of boundary objects with guidance by teachers that can help the student relate their experiences in the workplace to the school-based training (Utvær & Saur, 2019; Øgård & Hillen, 2025). Finally, the transition can be supported by combining practical training with systematic reflection in the classroom on what the students have learnt (Johannesen et al., 2022; Schaap et al., 2012). As such, reflection is central in supporting students' transition to workplace-based training.

Summing up, previous research often perceives the transition from the school's point of view. The transition to workplace-based training is conceptualised as boundary crossing – as a process that can be smooth but also discontinuous and disjointed encompassing a learning potential and identity change. The students' transition can be supported in various ways, including encountering practice in the workplace at an early stage in their education, employing boundary objects, and combining practical training with systematic reflection. Finally, there is a need for reflective dialogue between teachers and students, for example about differences between school-based and workplace-based training.

Research on the interrelation of school-based and workplace-based training

Students' perceptions of the interrelation of school-based education and training and workplace-based training is a recurrent theme in VET research, with students often struggling to understand the interrelation and the relevance of theory (Aarkrog & Wahlgren, 2022). This has led to research on how to improve the students' perception of coherence.

Most of the studies focuses on the interrelation from a school perspective. As was the case in research concerning transition, research on the interrelation shows that it enhances students' perception of coherence between school-based and workplace-based training if the former training includes authentic tasks and situations (Aakernes, 2018; Boersma et al., 2016; Choo, 2007). Short periods of practical training in real workplaces strengthen such perceptions of coherence and motivate students to learn theoretical knowledge (Armatas & Papadopoulos, 2013). In relation to these short periods of training, teachers should visit students in the various workplaces and the workplace trainers, or supervisors, should support students' learning processes (Larsen & Schmid, 2025; Mårtensson, 2021).

Some research focuses on the interrelation from a workplace perspective: Establishing a workplace-based training curriculum that integrates school-based training in the performance of tasks in the workplace has been shown to have a positive impact on students' perceptions of coherence (Bisgaard, 2018; Fjellström & Kristmansson, 2019; Onstenk & Blokhuis, 2007). Release days – meaning that students in workplace-based training return to school for a couple of days – contributes to a perception of continuity between school and work among students (Akkerman & Bakker, 2012). More generally to enhance the interrelation, there is a need for developing workplace trainers' pedagogical competences (Doroftei et al., 2018).

When theory and practice are integrated both at school and in the workplace, thus avoiding the so-called theory-practice gap, this supports perceptions of

coherence among students (Kilbrink, 2013; Louw, 2017; Louw & Katznelson, 2019; Luthi et al., 2021; Sappa et al., 2018; Sauli, 2021). Consequently, research points to the importance of teachers and trainers working together to establish activities that support students' ability to perceive an interrelation between school and workplace (Louw, 2017; Louw & Katznelson, 2019), leading to a need to clarify the responsibility for establishing coherence among students, teachers, and trainers (Wesselink et al., 2010).

Summing up, research on the interrelation of school-based and workplace-based training does not question the importance of a strong interrelation. The studies instead highlight students' difficulties in perceiving such an interrelation and point to various factors that can support a greater sense of coherence. These factors include early exposure to training experiences in the workplaces, developing a workplace-based curriculum, and closer cooperation between teachers and trainers.

Related to previous research, the aim of this study was to learn about how students' experiences of the transition to the first period of workplace-based training is shaped by students', teachers', and trainers' perceptions regarding the interrelation of school-based and workplace-based training. We have focused on the students' narratives concerning the two learning contexts and the transition between them, including following the students both at school and in the workplaces. This transition is a process during which the students form and adjust narratives about issues such as the change in community of practice, identity formation, and the interrelation of school-based and work-based training. In this article, the focus is on the latter and the students' meaning-making processes concerning this interrelation. Meaning-making refers to how the students make sense of the interrelation of school-based and workplace-based training. Previous research points to several factors that influence the students' meaning making in the transition, particularly highlighting the roles of the teachers and trainers. Thus, to better understand students' narratives, the teachers' and trainers' positions have been examined regarding the interrelation of school-based and workplace-based training. The article explores the following research questions:

- Which narratives do the students construct to make sense of the transition between school and workplace?
- Which teacher and trainer positions do the students encounter at school and in the workplace, and how do these positions influence their narratives?

Theoretical framework

The theoretical framework that has inspired the analysis and discussion in this article includes concepts for understanding transition processes.

In research on educational transitions and on life transitions in general, transition is characterised as a process where individuals continuously negotiate meaning (Aakernes, 2018; Ulriksen et al., 2013). This article draws on a narrative and social-constructivist approach to educational transitions, inspired by Ulriksen et al. (2019), to analyse how students make sense of the transition from school-based to workplace-based training in vocational education. Central to this framework are the concepts of narrative, repertoire, and horizon, which together capture both the processual and contextual dimensions of meaning-making across transitions.

Narratives are understood as the ways in which individuals construct meaning by linking past experiences, present situations, and anticipated futures into coherent accounts (Bruner, 1990). In the context of educational transitions, narratives are ongoing, processual constructions through which students make sense of who they are, what they are learning, and where they are heading (Ulriksen et al., 2013, 2019). As such, narratives constitute students' meaning making in transitions. At the same time, they are socially shaped, as they draw on meanings, expectations, and distinctions available within educational and workplace contexts, and constructed in the interplay between students' horizons and repertoires.

The concept of horizon is used to capture how students orient themselves towards imagined futures and anticipated forms of participation (Ulriksen et al., 2019). Horizons refer to what students perceive as possible, desirable, or realistic in relation to their education and future job. Importantly, horizons are not individual aspirations detached from context, but socially shaped expectations informed by prior experiences and current institutional encounters.

Repertoire refers to the experiences and knowledge students bring with them when entering a new educational context. The concept sheds light on the students' accumulated understandings of what it means to participate as a student: how to prepare for transitions, how to engage in teaching activities, how to interpret expectations, and how to act appropriately in different situations (Ulriksen et al., 2019). Importantly, a student's repertoire also conditions their horizons, as it influences what futures they can imagine, and how they interpret the relationship between current learning activities and future participation in work or further education.

These concepts draw on cognitive psychology and narrative theory (Bruner, 1990, 2004) and were used by Ulriksen et al. (2019) in a different (non-vocational) educational context. Transferring them to the transitions in vocational education allows us to create new insights into students' meaning-making processes during

this transition, enabling us to point out what creates continuities and discontinuities.

Empirical study

The article is based on a qualitative study exploring students', teachers', and trainers' thoughts regarding the transition from school-based education and training to the first period of workplace-based training. Thus, the study does not seek to identify causalities between students' perceptions and teachers' and trainers' ideas about supporting the transition, but rather to present the voices of individuals, which can then be juxtaposed in various scenarios.

The empirical data included interviews with students, teachers, and trainers in five VET programmes at five VET schools. The criteria for selecting the five VET programmes were a relatively high dropout rate in the transition to the first period of workplace-based training and a relatively large number of students. The selected programmes were dental assistant, farming, gastronomy, pedagogical assistant, and social and health care assistant.

At the beginning of each interview, participants were informed of their right to withdraw from the study at any point and about anonymity in the transcription and analysis of data and the presentation of results. None of the informants withdrew their consent. All interviews were recorded and transcribed. Below, we outline the methodology in relation to our focus in this article. For a description of the method for the entire project, please see Kamstrup and Aarkrog (2024).

Interviews with students

Two rounds of interviews were conducted with participating students: focus group interviews took place at school as the students approached the transition to workplace-based training; individual interviews took place at workplaces shortly after the students had begun workplace-based training.

At each of the five schools, one *focus group interview* was conducted with five–six students; a total of 27 students participated. Teachers were asked to select students that represented the diversity of the class in terms of age, gender, ethnicity, and practical experience within the industry or trade. The interviews lasted 60–90 minutes. The focus group interview method concentrates on how the informants construct knowledge through dialogue and discussion (Halkier, 2010). The interviews centred on the students' thoughts and expectations regarding their upcoming workplace-based training.

As many students as possible from each focus group interview took part in 30-minute individual interviews at the workplaces (a total of 18 students) in order to capture the transition from both sides of the boundary between school-based

and workplace-based training. The interviews were conducted after the students had been in workplace-based training for approximately one month. This timing was chosen to ensure proximity to the transition while also allowing the students to have gained sufficient experience in the workplace. A semi-structured interview guide included two themes. The first theme concerned the individual student's experiences of the onboarding process and of performing various tasks, as well as participating in the social and collegial community. The second theme concerned the student's reflections when comparing their expectations in the first interview at school to their experiences in the workplace. For this theme, the student was presented with relevant examples of their contributions during the focus group interviews.

Interviews with teachers

One focus group interview was conducted at each of the five schools with a group of three teachers (at one school, only two teachers participated). The criterion for selecting the teachers was that they taught a relatively large number of lessons in the class and/or played an active role in preparing the students for the transition to workplace-based training.

These semi-structured interviews lasted for approximately one hour and explored two main themes. The first theme asked teachers to finish the following sentence: 'An education and training activity is meaningful when...' on a piece of paper, before presenting and discussing their answers. The second theme concerned how their school prepared students for the transition to workplace-based training.

Interviews with workplace trainers

At each of the 18 workplaces (in one of the VET programmes only two workplaces wanted to participate) one interview was conducted with the students' primary trainer. A semi-structured interview guide included two main themes: 1) onboarding of students, including contact with the school and day-to-day supervision, and 2) preparing the student for the next period of school-based training, including the interrelation of school-based and workplace-based training. The interviews lasted around 30 minutes.

In this article, the analysis only includes the students' teachers', and trainers' reflections on the interrelation of school-based and workplace-based training. Their perspectives on other aspects of the transition are presented in Kamstrup and Aarkrog (2024).

Analysis of interviews

The research aim was to generate knowledge about how students experience the transition from school-based to workplace-based training. A further aim was to

explore what contributes to students' experiences of this transition as meaningful. Accordingly, the analysis focused on linking students' expectations during school-based training with their subsequent experiences of workplace-based training.

The data were coded as a thematic analysis (Braun & Clarke, 2012) with attention to cross-cutting themes that emerged when students were asked about their expectations of and experiences during the transition. The coding process was iterative, moving back and forth between the empirical material and emerging analytical themes, allowing the analysis to be progressively refined. This approach made it possible to identify recurring themes concerning how students imagined using what they had learned at school in workplace-based training, and how they later experienced being able – or unable – to draw on school-based education and training once in the workplace.

In addition, themes related to, for example, social communities across school and workplace-based training and students' first days in the workplace emerged from the material. However, these themes are not addressed in the present article. Based on the identified cross-cutting themes, it was analytically possible to construct narratives about the relationship between learning in school-based and workplace-based training. These narratives should be understood as analytical constructions that capture recurring patterns across interviews rather than as accounts by individual students. Although the narratives are analytical constructions, they are grounded in recurring patterns identified across students from different VET programmes and educational contexts, indicating that they capture shared ways of making sense of the transition rather than isolated individual accounts.

In the analysis of the interviews with teachers and trainers, the focus was on constructing positions regarding how they sought to link theoretical knowledge at school and practice in the workplace, thereby creating an interrelation that they believed would support the students' transition. The aim has been to show the breadth and diversity as well as the similarities regarding teachers' and trainers' perceptions. We use the term 'position' to describe the ways in which teachers and workplace trainers articulate particular understandings of the relationship between school-based and workplace-based training. Positions refer to relatively stable perceptions that teachers and trainers adopt when talking about how training should occur and the purposes that training at school and in the workplace are expected to serve. While these positions, in practice, are also dynamic and open to change, the analysis treats them as analytically 'fixed' to foreground how they shape the context and repertoires available to students during their transition. The following presentation of findings seeks to answer the two research questions above.

Students' narratives in the transition between school-based and workplace-based training

The analysis of the students' narratives concerning the transition is structured around two points in time: while students are still at school, anticipating the transition to workplace training, and once they have entered the workplace and begun participating in everyday practice within this setting. While at school, students construct narratives that either emphasise the anticipated relevance of school-based education and training or express frustration and disengagement from the academic expectations at school. Once in workplace training, they again construct two contrasting narratives: one in which school knowledge is retrospectively affirmed as meaningful and supportive of their participation, and another in which school-based education and training is rejected as redundant or misaligned with the realities of practice. In the following we will present these narratives using the concepts of horizon and repertoire (Ulriksen et al, 2019). The excerpts presented below are selected as particularly clear illustrations of the identified narratives; however, the narratives themselves are constructed across interviews with students from all five VET programmes.

At school

This section explores the narratives that students construct during their time at school. Two narratives can be identified through which students make sense of their transition from school-based to workplace-based training.

I want to use the knowledge I have acquired at school during workplace-based training

The first narrative concerns students' anticipation of how they can use knowledge from school in the workplace. They interpret their present experiences – and knowledge from lessons – through expectations about what lies ahead. Students describe the school as a space where they acquire a repertoire of knowledge and skills that they look forward to 'trying out' in the workplace. The narrative is illustrated by the following quote:

We have just learned about cattle diseases, and I expect this knowledge will be useful in spotting disease among cattle, rather than being unable to spot the disease because we have not been taught about it. (student, farming)

This student emphasises that the content of a recent lesson at school will enable them to carry out specific tasks they already imagine performing during their workplace training. Another student expresses a similar point at a slightly more general level where school seems to prepare the students for the imagined 'real world':

I have equipped myself with something [theory] that I will actually have the opportunity to go out [into practice] and try out on real people (student, social and health care)

These quotes illustrate a narrative where school-based training is understood as relevant in preparing for the transition to workplace-based training, with the students casting themselves as emerging professionals who are gradually building the competences necessary for full participation in practice. Thereby, the narrative links the repertoire developed in school to a horizon here imagined as a future professional identity. In this way, it functions as what Ulriksen et al. (2019) describe as a meaning-making narrative, bridging past learning, present engagement, and anticipated future practice. School-based training is therefore not only legitimate but provides the foundation for students' imagined participation in workplace training.

I want to leave school behind

While at school, a second narrative is constructed amongst the students. This narrative differs from the first by portraying education and training at school as less significant. It illustrates how students make sense of their present experiences in school by looking forward to other training opportunities at the workplace. In this narrative, students frame their struggle with academic demands at school as something that will no longer constrain them once they enter the workplace. Real-world and experience-based knowledge is superior to academic learning:

I would rather learn in real life than academically. You know, trying it out makes sense instead of just reading how it should be in a book. It is much more fun to try mixing something [forage], realising that it actually makes a difference instead... I mean, you do not know whether it works just because it says so in a book. (student, farming)

The students often describe the theoretical parts of their education as abstract, difficult, or disconnected from practice, and envisage the workplace as a context where practical training dominates and where they will be able to draw on their perceived practical strengths:

If you just have a really good grasp of your theory and know it inside out, that does not necessarily mean that you'll be a good social and health care assistant, whereas someone who maybe finds all the theory stuff more of a struggle may become the best social and health care assistant. I mean, you maybe shouldn't always follow the textbooks, do things just because they say so: look at the person instead of the book. (student, social and health care)

This narrative mobilises a particular horizon in which school-based theory becomes unnecessary or marginal. In Ulriksen et al.'s terms (2019), students use their upcoming transition to reinterpret their current difficulties through a narrative that maintains a positive sense of self and preserves motivation. This

narrative thus makes sense of a problematic present and offers a more manageable future, even though it rests on an assumed discontinuity between school-based and workplace-based training.

Together, these two narratives show how the students make sense of their transition by relating their present experiences to an expected future. However, they differ in how they configure the relationship between school-based and workplace-based training. The first narrative constructs continuity, drawing on a repertoire formed in school and projecting it onto a future horizon where it is expected to be relevant and useful. The second narrative constructs discontinuity, narratively downplaying the value of theoretical knowledge and elevating an imagined future where practical training dominates.

In the workplace

Just as in school, two contrasting narratives also emerge when students have entered workplace training. These narratives illustrate how the students retrospectively mobilise – or distance themselves from – the learning acquired at school in order to make sense of the present. At the same time, the narratives also reveal how students negotiate their professional identity and legitimacy as newcomers to the workplace.

School becomes meaningful

In the first narrative, school is perceived as meaningful. Students emphasise that the knowledge and skills acquired at school enable them to participate productively in workplace tasks. They describe being able to draw on school-based learning to understand procedures, solve problems, or contribute to the workflow in ways that support their emerging legitimacy as practitioners. This narrative is illustrated by the following quote:

Without a doubt, I can use what I learnt at school, all the stuff about cattle diseases [...] Some evenings, I have looked at my assignments from school and thought, yes okay, that was it... (student, farming)

This quote shows how the present is constructed as intelligible through the students' repertoires – here seen as selective activation of past experiences (Ulriksen et al., 2019). The students' experiences at school become part of the repertoire they use to make sense of the demands and expectations they encounter in the workplace. In this way, the school is retrospectively positioned as meaningful: as a resource that supports task performance, identity formation, and the student's sense of belonging. The same is expressed by another student:

They stay somewhere in the back of my mind, these concepts we have brought with us from school. They do not really take up much space in everyday practice... They tend to come up when we sit in meetings and discuss assignments. Then I suddenly

realise: 'Oh yes, this is actually exactly what we talked about in school' – and that is when the connection is made. (student, pedagogical assistant)

When talking to colleagues at the workplace, this student realises how concepts learned at school are useful for understanding practical assignments. The student creates a narrative in which school-based education and training is not only relevant but also foundational for becoming a legitimate participant in the workplace community of practice. The transition is therefore narrated as coherent and continuous rather than disruptive.

School becomes meaningless

In contrast to the first narrative, the second narrative depicts school-based education and training as irrelevant or redundant. Students describe the tasks they are expected to perform in the workplace as differing markedly from what they learned at school, or how their trainer in the workplace 'explains everything again' in ways that make school instruction appear unnecessary. This narrative is illustrated in the following:

When you start training [as an apprentice], not knowing how much you know [from school], they just tell you the whole thing again [...] I do not think that the school can teach me anything that the clinic does not teach me or that I cannot read in a book. (student, dental assistant)

Here, school is perceived as unhelpful or misguided preparation for the realities of practice. Students do not draw on their school experiences in the present (Ulriksen et al., 2019). Instead, they emphasise that understanding arises in practice rather than through what they have learned at school.

In this narrative, workplace-based training is framed as the preferred mode of becoming a practitioner. The transition is interpreted as correcting the mismatch between school and 'real' work, thereby reinforcing a perception that meaningful training only occurs through hands-on participation.

Taken together, the two narratives demonstrate meaning making in the interrelation between school and workplace: students mobilise the past (school) in different ways to understand the present (workplace), thereby shaping how the transition is experienced.

Teachers' and workplace trainers' positions regarding the interrelation of school-based and workplace-based training

In this part of the analysis, we focus on the positions of teachers and workplace trainers regarding the interrelation of school-based and workplace-based training. As mentioned above, we use the term 'position' to describe the ways in which teachers and workplace trainers articulate particular understandings of

the relationship between school-based education and training and workplace-based training. Teachers and workplace trainers play a central role in framing the intended purposes of school-based training and how theory and practice are expected to connect. In other words, they provide some of the repertoires (Ulriksen et al., 2019) that students may draw upon when constructing narratives about the transition.

Positions that students encounter at school

Based on the interviews with teachers, two positions have been constructed depicting how the teachers perceive the interrelation of school-based and workplace-based training: 'the role of the school is to teach students a broad range of knowledge and skills' and 'the role of the school is to teach students vocation-specific knowledge and skills'. These two positions should be understood as poles at each end of a continuum, with each of the teachers we interviewed placed somewhere along this continuum.

The role of the school is to provide students with a broad knowledge base and general skills

In this position, school should provide students with a broad knowledge base and general skills that can support training in a variety of vocational situations. This includes, for example, communication skills, hygiene knowledge, and general subjects such as mathematics and languages. From this position, the schools' role is to contribute with non-specialised knowledge that can serve as a foundation for, or an explanation of, the work tasks students encounter during workplace training.

Teachers who emphasise the importance of a broad knowledge base try to frame school-based education and training as meaningful beyond its immediate practical application. This position can influence the students' narratives in different ways. For students who construct the narrative 'I want to use the knowledge I have acquired at school during workplace-based training', this position can either reinforce or destabilise their expectations. When teachers succeed in making the relevance of broad, general knowledge explicit, they strengthen students' belief that school-based education and training is legitimate and future oriented. However, if this relevance remains implicit or unclear, these same students risk shifting towards the narrative 'I want to put school behind me', as the lack of clear applicability can undermine their initial motivation to draw on school-based training.

Students who construct the narrative 'I want to put school behind me' encounter a mismatch when encountering this position: the emphasis on general knowledge does not align with their expectation that only directly applicable, workplace-specific learning is meaningful. One teacher describes this tension:

A meaningful activity in a student's perspective is one that can be directly connected to his interests within farming. If the activity concerns pigs and you are only interested in cattle, you will experience a disconnect. It is not farming in general; it is the exact thing that I'm interested in. (teacher, farming)

Teachers positioned towards the 'broad knowledge' pole often describe the need to actively motivate students, as these students may struggle to see why such knowledge matters before they have encountered workplace practice. Therefore, this position can strengthen the student narrative 'I want to leave school behind me'. This is also why short workplace placements ('taster internships') are often seen as important:

Sometimes we experience that what we consider meaningful, the students do not see as important, because they have not yet encountered practice. Accordingly, our training changes and the students' approach changes after they return from practical training. (teacher, social and healthcare)

This shows that workplace experience can act as a catalyst, enabling students to reinterpret previously abstract school knowledge as meaningful – and thereby potentially adapting their narrative about the transition.

The role of the school is to provide students with specific vocational techniques and task-oriented skills

In this position, the purpose of school-based training is understood as preparing students for concrete situations and responsibilities they will encounter during workplace-based training. One teacher explains:

Actually, they [the students] are here to become qualified pedagogical assistants. And they are proud of that [...] They will learn all the craftsman-like stuff. ... because in the kindergarten, there is no substitute for being able to fold and make chatterboxes with the children. You cannot just stand there looking cool with the children, and it is smart to tell them that we are going to make chatterboxes. ... Often, they all come back talking about that it was great making those chatterboxes: 'Suddenly, I was surrounded by 10 kids'. (teacher, pedagogical assistant)

From this position, school-based education and training is considered meaningful when it mirrors workplace practice, enabling students to perform recognisable tasks and build confidence in their future role. The emphasis is therefore on applicability, task-specific competence, and immediate transferability.

This position resonates strongly with students who construct the narrative 'I want to use the knowledge I have acquired at school during workplace-based training.' For these students, teacher practices that highlight concrete techniques, tools, or task-specific knowledge reinforce their belief that school-based training has direct relevance for and can be applied to practice. This teachers' position thus affirms and stabilises such a narrative by framing school education and

training as preparatory, practical, and essential for becoming a legitimate professional.

Students constructing the narrative 'I want to put school behind me' may still find relevance in vocation-specific teaching if the school activities align closely with what they imagine they will be doing in practice. However, if the skills they are taught do not match their expectations of workplace-based training, this position can also reinforce their belief that only workplace-based training is relevant, and that school is valuable only when it replicates a workplace setting. In this way, the position can confirm or even intensify students' scepticism toward school-based training, depending on the extent to which teaching content is aligned with their anticipated professional identity.

In summary, we have constructed two positions characterising teachers' perceptions of the interrelation between school-based and workplace-based training. In practice, students encounter teachers located at different points along the continuum between these positions. These encounters shape the way the students construct their transition narratives. Some student narratives are thus reinforced, while others are challenged or reconfigured, depending on which teachers' positions they meet. In this sense, the teachers' positions serve as important conditions that structure how students come to understand the meaning, relevance, and legitimacy of what they learn at school upon entering the workplace.

Positions that students encounter in the workplace

After examining the positions that students encounter at school, we now turn our attention to the positions they encounter in the workplace. Based on the interviews with workplace trainers, two positions have been constructed representing opposing poles on a continuum: 'school-based training has no relevance for workplace-based training' and 'school-based training is relevant for practical training'.

School-based training has no relevance for workplace-based training

Some trainers take a rather negative position towards the relevance of school-based training. This position can be grounded in different assumptions. For some trainers, the primary purpose of school-based training is to socialise students into workplace norms and expectations, whereas task-specific training is something the student should acquire on the job:

No, I do not know what she has learnt at school, to be quite honest. However, it is mostly about adapting to not being in school anymore and now one has started at work. You are paid for what you are. You cannot just stand in the corner saying, 'I don't know what to do'. (trainer, farming)

Other trainers express a desire for the school to teach students practical skills, yet they still perceive the actual content of school-based education as irrelevant:

I think that what the students were able to do when they came from school was far from adequate. ... I sometimes think that the school does crazy things, like when the students are asked to collect stones on the beach because you can serve food on stones, and then they spend a whole day doing that. That is just silly. (trainer, gastronomy)

A defining element of this position is the absence of responsibility felt by trainers for linking school-based and workplace-based training. They position the school as solely responsible for any coordination or alignment:

Interviewer: Have you collaborated with the school?

Trainer: No.

I: Have you spoken to the school at all?

T: No, I have not spoken to the school yet. However, I assume that they will turn up at some point.

I: I think they will, yes. But you do not know anything about that?

T: No, I think that they will call around a fortnight before to make an appointment. However, whether it will be now or in half a year, that's impossible to know.

I: Your apprentice has learnt some things at school, various things about animal feed and cattle diseases and all kinds of things; is that something you notice in daily life? That the student brings something with him [from school]?

T: No, he doesn't.

I: And you would never ask: Okay, what have you learnt at school?

T: No. (trainer, farming)

In this exchange, the trainer expresses indifference towards both the school's role and the knowledge that students may bring into the workplace. The student's prior learning is neither explored nor valued, and no effort is made to build bridges between the two training contexts.

When juxtaposed with the student narrative 'I want to use the knowledge I have acquired at school during workplace-based training', this position can lead to disappointment or disillusionment. Students who arrive at the workplace expecting to apply and expand upon what they have learnt at school may experience a narrative disruption, as the trainer offers no interpretive space in which their school-based knowledge is recognised as legitimate or useful.

Conversely, this trainer position aligns closely with the student narrative 'I want to put school behind me'. For these students, the trainer's position confirms their belief that school-based education and training lacks relevance and that meaningful training happens only in the workplace. The position thus reinforces and stabilises this narrative, offering students an environment in which dismissing school-based knowledge appears natural and justified.

School-based training is relevant for workplace-based training

The other position amongst the trainers takes a more positive approach to school-based training. This position is characterised by an interest in learning, reflection, and development within the workplace, and thereby also in the knowledge students bring from school. Trainers adopting this position view students as a valuable source of renewal: their questions and fresh perspectives can disrupt established routines and stimulate professional reflection:

Someone arrives at our institution with a fresh pair of eyes, someone who might actually wonder and ask questions: 'Okay, I am curious why you did that in this way?' It makes the student question things, but also us who have been working at the same place for many years, where things have just become like 'That's how we usually do things'. So, the staff may start wondering: 'God yes, why do we actually do it this way?' (trainer, pedagogical assistant)

Here, student knowledge becomes an asset – not only for the student's workplace-based learning but also for the organisation's ongoing development. Having a student trainee is understood as an opportunity to reassess existing practices.

Trainers in this position also express a sense of responsibility for ensuring an interrelation between school- and workplace-based training:

I do think that the theory they learn [at school], it is also my job to help the student to link it [to practice in the workplace]. And it is sometimes a frustrating process for the students, because many of them think that they should know it all on their first day here. 'No, no, take it easy. It is like a layer cake; we will take one thing at a time, and then eventually on the last day, I think that you will be like: Ah, the theory fits in like this!' (trainer, social and health care)

This trainer acknowledges the work involved in helping students connect theory and practice, viewing it as a core responsibility in workplace training. Their position strongly reinforces the student narrative 'I want to use the knowledge I have acquired at school during workplace-based training'. By explicitly acknowledging the relevance of school-based knowledge, and by actively helping the student link it to practice in the workplace, trainers support students in maintaining or even strengthening this narrative. In such contexts, students often experience that school becomes more meaningful through their engagement in workplace-based training.

When juxtaposed with the student narrative 'I want to put school behind me', two scenarios are possible. First, the trainer may succeed in shifting the student's narrative, helping them reinterpret school-based education and training as relevant once they begin to see its practical implications. Alternatively, if the student maintains the view that only workplace-based training is legitimate, the mismatch between trainer position and student narrative may produce tension and frustration – for the student, who feels theory is being imposed on them, and

for the trainer, who is invested in bridging two worlds that the student refuses to connect.

Discussion

The different student narratives confirm that transition should be perceived as a process – as in research on boundary crossing (Akkerman & Bakker, 2011; Berner, 2010; Enochsson & Kilbrink, 2025). Previous research focuses on identity formation as taking place in the encounter with the workplace (Hegna, 2019; Tanggaard, 2007; Tårnesvik & Schmid, 2022). Our study shows that identity formation does not only take place during the transition but is also linked to experiences at school and at work, such as encounters with different teacher and trainer positions that may alter or reinforce students' narratives concerning – among other things – the interrelation of school-based and workplace-based training. As such, various events in both these settings may encourage students to negotiate and ascribe new meaning to their interrelation. It is important to note that this negotiation is an ongoing process that extends beyond the point of transition from school to work. In this article, we have focused on the impact of teachers and trainers on their students' narratives.

Compared to previous research, which has often focused on whether VET students perceive an interrelation of school-based and workplace-based training (Aarkrog & Wahlgren, 2022), our study unfolds the students' narratives about the substance of the interrelation. For instance, in relation to Akkerman and Bakker's (2011) notion of discontinuity, our study depicts students' perceptions of a lack of continuity in the transition, while also showing that such discontinuity can be meaningful for some students who want to leave school behind them, thus nuancing the general perception of the desired interrelation.

Many previous studies have concerned how to support students' transition to workplace training in various ways (Akkerman & Bakker, 2011; Bartman et al., 2018; Johannesen et al., 2022; Schaap et al., 2012; Schoop et al., 2023; Utvær & Saur, 2019). Extending students' perceptions about the interrelation of school-based and workplace-based training, the students' narratives can contribute to and potentially qualify dialogues and reflections among teachers, trainers, and students.

The teacher and trainer positions identified in our study and juxtaposed with the students' narratives can serve as points of identification and reflection in relation to the transition process, pointing to opportunities for learning, including learning from discontinuities in the transition (Akkerman & Bakker, 2011). However, realising this potential requires communication between school and workplace, and identifying and reflecting on differences and similarities, including the ability to apply the varying perspectives of both teachers and

trainers (Akkerman & Bakker, 2011; Louw, 2017). Our study has pointed to different perceptions of the responsibility for establishing and ensuring coherence between the training contexts which does not unequivocally align with the perception that schools and workplaces should share this responsibility (Kilbrink, 2013; Louw & Katznelson, 2019; Sappa et al., 2018; Sauli, 2021).

Based on evidence that integrating school-based training within workplace-based training helps students understand the interrelation of school-based and workplace-based training (Bisgaard, 2018; Fjellström & Kristmansson, 2019; Onstenk & Blokhuis, 2007), the trainer position that 'school-based training has no relevance for practical training' seems problematic. However, this may not be the case for students who want to put school behind them. Thus, juxtaposing the positions may lead to scenarios that, while not conforming to ideas of proficient learning processes, may suit some students.

As to whether the positions outlined in this article accurately reflect the thoughts of students, teachers, and trainers regarding the interrelation of school-based and workplace-based training, it should be emphasised that the positions are analytical poles at each end of a broad spectrum of perceptions and opinions that we encountered in our study.

Finally, one might ask whether studying perceptions of the interrelation of school-based and workplace-based training leads to a better understanding of students' transitions? At the outset, we assumed that a clear interrelation is pivotal for a harmonious transition. However, juxtaposing different student, teacher, and trainer perceptions showed that such a clear interrelation is not necessarily decisive for a smooth transition.

Conclusion

This article has examined how students' experiences of the transition to the first period of workplace-based training is shaped by students', teachers', and trainers' perceptions regarding the interrelation of school-based and workplace-based training. The analysis constructed two student narratives while at school and two student narratives after commencing workplace-based training, as well as two teacher and two trainer positions. Combining the student narratives with the teacher and trainer positions not only highlights that discontinuity can be considered positive by some students and trainers. Acknowledging the differences between student, teacher, and trainer positions is also an argument for improving tripartite cooperation between these parties.

Declaration on use of AI tools

AI-based tools (ChatGPT, OpenAI) were used to support language editing and formulation, as English is not our native language. The authors take full responsibility for the analysis, interpretations, and conclusions presented in the article.

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Collaboration at the intersection of policy, practice, and professional identity: Governance and degree learning outcomes in four Swedish professional higher education programmes

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Abstract

This article examines how collaboration-related degree learning outcomes are interpreted, implemented, and assessed within four Swedish professional education programmes: the social work programme, the subject teacher programme, the special needs education programme, and the health care counselling programme. Drawing on neo-institutional theory and a governance perspective, the study analyses 30 semi-structured interviews with programme directors from 21 universities using qualitative content analysis. The findings show that collaboration is framed as a self-evident core competence but is translated differently across programmes. Three cross-cutting patterns emerge: (1) professional logics shape local interpretations, giving divergent meanings to similar outcomes; (2) organisational structures, such as timetables, course architecture, and placements, indirectly govern opportunities for collaboration; and (3) assessment practices often privilege reflection over action, shifting responsibility to supervisors in placement and field-based learning contexts. These patterns reveal how governance and professional logics jointly shape opportunities for students to develop collaborative competence. The study concludes that authentic, practice-based learning and assessment designs supported by coherent organisational and policy conditions are crucial for achieving functional equivalence across institutions. The results underline the need for policies and resource support that bridge the gap between formal outcomes and educational practice, creating equitable conditions for students' development of collaborative competence.

Keywords: collaboration, professional education, governance, neo-institutional theory, assessment, higher education, Sweden



Introduction

Contemporary welfare challenges are characterised by complex problems that require coordinated efforts across professions and organisations (Hall, 2002; Hood, 2012). International policy initiatives, such as UNESCO's work with Agenda 2030, highlight collaboration as a core competence for building sustainable welfare systems (UNESCO, 2017). In fields such as social work, education, and health care, collaboration has become an almost self-evident condition for meeting the needs of individuals and groups in an increasingly fragmented welfare landscape (Danermark & Kullberg, 1999). These demands have influenced not only professional practice, but also the formal regulation of professional education.

Professional higher education programmes, such as teacher education and social work, are often positioned at the intersection between higher education and vocational education and training (VET), as they combine academic education with preparation for specific professional fields and practice-based learning environments (Billett, 2011; Smeby & Sutphen, 2016). Understanding how collaboration-related competencies are translated into teaching and assessment in such programmes is therefore also relevant for research on VET, where similar challenges arise in aligning policy goals, workplace practices, and the assessment of professional competence.

In Sweden, national degree learning outcomes (DLOs) are legally regulated by the government through the Higher Education Ordinance (SFS 1993:100), a binding and continuously revised statutory framework governing all higher education programmes. The Ordinance specifies nationally determined DLOs for each professional degree, including requirements for students in programmes such as the social work programme, the subject teacher programme, the special needs education programme, and the health care counselling programme to demonstrate knowledge of and competence in collaboration. These nationally regulated DLOs form local course and module objectives, where they are interpreted and operationalised within specific programme contexts.

This institutionalisation of collaboration in national DLOs, and its subsequent translation into programme-level teaching and assessment, reflects a broader international trend in higher education in which professional programmes are increasingly expected to prepare students to manage complex collaborative assignments in their future professions (Evans et al., 2024; Herrera-Pavo, 2021; Weiss et al., 2017). This article approaches collaboration as a pedagogical issue in higher education, focusing on the conditions of governance that influence how nationally regulated DLOs are translated into learning situations and assessment practices under organisational circumstances that shape what is actually possible to teach and assess for.

Despite this institutionalisation of collaboration in policy and degree frameworks, it remains far from clear how collaboration as a competence should be understood, taught, and assessed in higher education (Muukkonen et al., 2019). Similar questions have been raised within VET research regarding how complex professional competencies are defined, taught, and assessed across both educational and workplace contexts (Mulder, 2017). The concept encompasses several dimensions, ranging from practical skills in teamwork and coordination to the reflective capacity to analyse boundaries and power relations between professions. More specifically, in this article we use the term *collaboration* in a broad sense, as an umbrella concept that encompasses both practical cooperative skills and reflective dimensions of understanding and managing relationships between professions.

Within the field of professional studies, questions of *boundary work* and *professional identity* have been highlighted as central to understanding collaboration, including how practitioners position themselves and negotiate their mandates in relation to others (Bucher et al., 2016; Danermark & Germundsson, 2013; Wackerhausen, 2009).

Higher education research, in turn, has often focused on interprofessional learning (IPL), in which students from different programmes participate in joint teaching activities. Such initiatives have been shown to enhance students' understanding of other professions and contribute to the formation of professional identity (Powers & Kulkarni, 2022; Rubin et al., 2020). Examples include exercises in which students from various programmes practise professional roles in authentic patient scenarios (Banks et al., 2019). At the same time, there are evident organisational and pedagogical barriers to consistent implementation (Pettersson & Fredriksson, 2026). This study therefore extends beyond specific IPL activities to examine how DLOs regarding collaboration are translated and enacted in teaching and assessment when they encounter professional logics and governance conditions.

Despite strong policy pressure and a growing body of research, little is known about how collaboration-related DLOs are addressed in professional education outside the field of health care. Previous studies have mainly focused on health-care education (e.g., Lapkin et al., 2013; van Diggele et al., 2020), examining interprofessional learning initiatives within medicine, nursing, and allied health professions. These studies have often centred on short-term educational interventions or student perceptions of teamwork skills. While this research has provided valuable insights into the design of interprofessional learning environments, it tends to conceptualise collaboration primarily as a pedagogical technique rather than a governance issue that shapes programme structures and assessment practices. Research on programmes in social work and education remains limited (e.g., Accardo et al., 2020; Kallio et al., 2023; Murray-Harvey et

al., 2013). Consequently, little is known about how collaboration is translated and operationalised in other professional fields, or how institutional governance frameworks condition what can be taught and assessed.

This study contributes to the research on professional education and VET in three ways. Firstly, it broadens existing knowledge by comparing professional education programmes outside the field of health care. Secondly, it explores how collaborative competence is constructed in educational practice, often within a context of tension between the self-evident and the elusive in teaching and assessment. Thirdly, the study explains this variation by linking local translations to governance conditions. To illuminate these dynamics, four programmes are analysed: the social work programme, the subject teacher programme, the special needs education programme, and the health care counselling programme. This selection is analytically strategic, being designed to capture variation across professional domains and qualification levels: two are within social work (social work and health care counselling) and two within education (subject education and special needs education); and two are at undergraduate level and two at postgraduate level. This combination enables the comparison of how professional logics and organisational conditions shape the interpretation, implementation, and assessment of collaboration outcomes.

Recent research on VET in the Nordic countries highlights similar tensions between policy ambitions and everyday educational practice, including how reflective routines often dominate the assessment of complex professional competencies (Gustavsson, 2024; Messina Dahlberg & Gustavsson, 2024). Although the study is situated in the context of Swedish higher education, the programmes analysed have several features in common with VET contexts, such as practice-based learning, professional competence development, and the difficulty of assessing complex workplace-related skills (Mulder, 2017). The study therefore contributes to VET research by showing how collaboration-related learning outcomes are locally interpreted, enacted, and assessed in different organisational and professional conditions across educational and workplace settings.

The aim of the study is to analyse how DLOs regarding collaboration are interpreted, implemented, and assessed in four Swedish professional education programmes, and to explore how professional logics and indirect governance enable or limit the pedagogical possibilities for practice-based learning and equitable assessment across institutions. The study draws on interviews with programme directors and addresses the following research question:

- In what ways do collaboration-related DLOs govern educational practice in four Swedish professional programmes through interpretation, implementation, and assessment?

Theoretical framework

The study combines a *neo-institutional perspective* (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Sahlin & Wedlin, 2008) with a *governance perspective* (Ball, 2003; Fejes & Dahlstedt, 2013; Rose, 1999) in order to analyse how DLOs regarding collaboration are interpreted, implemented, and assessed in four Swedish professional education programmes.

Neo-institutional theory is used to understand how higher education balances between academic norms, professional demands, and state steering mechanisms (cf. Krücken & Meier, 2006). It offers a framework for analysing how educational programmes operate within an institutional landscape shaped by both formal regulatory documents, such as the Higher Education Ordinance, and informal norms and expectations from the state, professions, and labour market (cf. Meyer & Rowan, 1977). A key assumption is that educational programmes, treated here as organisations in the neo-institutional sense, strive for legitimacy by adapting to external demands, yet this adaptation is rarely direct or unambiguous. Instead, a process of *translation* occurs, whereby national policy formulations are reinterpreted in light of local traditions, resources, and profession-specific cultures (Sahlin & Wedlin, 2008).

This perspective is particularly relevant for the four programmes examined here, which operate at the intersection of distinct institutional logics. Teacher education and special needs education are shaped by the normative and collegial traditions of the educational system, whereas social work and health care counselling are influenced by the *professional logic* of social work, and, in the latter case, by the governance ideals of the health-care sector. The neo-institutional perspective thus enables an analysis of how these different logics of governance – academic, professional, and administrative – affect the interpretation, translation, and enactment of collaboration-related DLOs in educational practice.

We also draw on the concepts of *isomorphism* (DiMaggio & Powell, 1983) – to capture how similar policy formulations can generate surface-level similarities between programmes despite divergent practices – and *ceremonial compliance* (Meyer & Rowan, 1977) – to describe situations where organisations formally adapt to external demands to maintain legitimacy without necessarily changing their actual practices.

Depending on professional mandates and programme orientations, collaboration outcomes may to varying degrees align with existing educational logics (cf. Smeby & Sutphen, 2016). For example, these logics may define collaboration as a practical skill closely linked to professional identity, or as a more theoretical component weakly anchored in teaching and assessment. The neo-institutional perspective allows analysis of how such variations arise in the encounter between policy requirements and local educational practices. A central notion here is that of *decoupling* (Meyer & Rowan, 1977), which refers to how formal policies, such

as those set out in course syllabi, may coexist with practices that do not necessarily reflect them. This has clear parallels with educational research that distinguishes between formulated, enacted, and experienced curricula to highlight gaps between policy and practice (Solbrekke et al., 2020).

In this context, we also employ the concept of professional logics as a sensitising concept for capturing how norms, epistemic claims, and organisational conditions structure professional practices and collaborative assignments (cf. Bucher et al., 2016; Danermark & Germundsson, 2013; Wackerhausen, 2009). By 'professional logic' we do not mean a fixed typology, but rather an analytical lens for understanding how similar policy requirements can take on different meanings in different educational contexts. The concept is linked to questions of professional identity and knowledge forms, making it possible to analyse variation without presupposing it.

In parallel, a governance perspective is used to illuminate how collaboration-related DLOs function as tools of governance (Ball, 2003; Fejes & Dahlstedt, 2013). Governance refers here to the broad spectrum of steering mechanisms that shape higher and professional education in which legal requirements interact with quality assurance, resource allocation, and organisational structures (Braun et al., 2011; Neave & van Vught, 1991). Ball (2003) emphasises performative governance, whereby accountability demands, indicators, and assessment practices create pressure to move towards what is measurable – potentially reshaping teaching and assessment without necessarily strengthening actual professional capability. Rose (1999) highlights how governance can also operate through the delegation of responsibility to individual actors, who then bear the consequences of policy demands in practice. In line with this, Braun et al. (2011) have developed the concept of *policy enactment*, by which policy is understood not as linearly implemented but as locally translated and realised through negotiation, resources, and organisational conditions. This perspective helps reveal variations in enactment. Accordingly, in this study, the chain leading from DLOs to course and module objectives is also viewed as a governance chain, in which policy is translated and responsibility is distributed locally.

Within this governance context, professional education emerges not only as an arena for knowledge transmission, but also as a site where state, professional, and labour market demands are negotiated, interpreted, and translated into educational practice. The concept of *boundary work* is also relevant here (Bucher et al., 2016; Gieryn, 1983). We use this idea as a sensitising analytical tool to describe the processes by which professional boundaries and mandates are established, maintained, and renegotiated in relation to other professions. This may involve delineating professional expertise, as well as negotiating responsibilities and forms of collaboration in concrete practices. In this study, however, boundary work is not analysed as a phenomenon in itself. Instead, the

concept is used to interpret how collaboration-related DLOs acquire practical meaning when enacted in local educational contexts. In this way, boundary work complements the concepts of professional logic and translation, and helps reveal the processes of negotiation through which responsibilities and mandates are shaped at the intersection of policy and practice. One consequence of such boundary work may be the shifting of responsibility to local actors, such as teachers, course coordinators, and supervisors in school- or field-based settings, who then take on the practical responsibility for realising policy demands (cf. Ball, 2003).

Combining a neo-institutional perspective with a governance perspective allows us to analyse both the overarching logics of governance and the local translation practices through which collaboration acquires meaning, value, and function. By *translation practices*, we mean the concrete ways in which policy requirements are reinterpreted within educational practice. This term is closely related to interpretive practices, but we consistently use 'translation' to emphasise its theoretical lineage. This combination of perspectives makes it possible to identify the tensions that arise between formal requirements and actual practice – where practice is understood not as passive implementation, but as the outcome of professional and pedagogical choices within given governance conditions – and to explain why similar policy formulations take on different meanings in different educational contexts.

Method

The study is based on qualitative, semi-structured interviews with programme directors from the four selected Swedish professional education programmes. Semi-structured interviews were chosen because they allow participants to describe and reflect – in their own words – on how collaboration-related DLOs are understood, enacted, and assessed within their respective programmes (cf. Brinkmann & Kvale, 2018). This approach provides both a degree of comparability across interviews and the openness needed to capture nuances and complexities in how these outcomes are interpreted and managed in different organisational and institutional contexts.

A total of 30 interviews were conducted between May and December 2024 (see Table 1 for an overview of the sample). All programme directors (n = 60) were contacted via email, with reminders being sent in cases of non-response. Those who declined participation primarily cited workload or having recently assumed their position. The 30 participants thus represent half of all programme directors across 21 universities of varying sizes and locations. Nine of these were from the social work programmes (out of 19; 11 originally accepted, but two cancelled), five from the health care counselling programmes (out of six), ten from the

subject teacher programmes (out of 25), and six from the special needs education programmes (out of ten). The sample thus retained the variation in qualification levels described above, allowing potential level differences to be observed, although this was not the primary focus of the study.

Table 1. Distribution of programme directors and interviews across the four programmes.

Programme	Total programme directors nationally	Participants (n)	Response rate (%)	Programme level
Subject teacher education	25	10	40%	Undergraduate
Social work	19	9	47%	Undergraduate
Special needs education	10	6	60%	Postgraduate
Health care counselling	6	5	83%	Postgraduate
Total	60	30	50%	-

Throughout the article, the term *programme director* is used, regardless of the role's formal designation at each university. Typically, this role involves coordinating courses within the programme and ensuring academic content and quality. Responsibility for managing personnel may vary and was not the focus here. One methodological consideration concerns the decision to interview programme directors rather than teachers or supervisors, who directly interpret, implement, and assess the DLOs in everyday practice. This can be regarded as a limitation, since the perspectives of programme directors primarily reflect the organisational and strategic level. At the same time, they occupy key positions for coordinating courses and maintaining programme quality, which makes their viewpoint particularly relevant to the purpose of the study. This assessment is reinforced by the fact that all interviewees had personal experience of teaching within their programmes. To strengthen the study's credibility, all participants received the interview questions in advance, allowing them to prepare their responses. While the results are based on the perspectives of the programme directors, they should be understood as the researchers' interpretations and analyses of these accounts.

The interviews lasted between 30 and 60 minutes. They were conducted individually by the authors, who divided them roughly equally and used a semi-structured interview guide. If one author had a closer collegial relationship with a particular participant, then the other author conducted the interview. The guide included questions concerning the interpretation, implementation, and assess-

ment of collaboration-related DLOs, while also allowing for follow-up questions and an open conversational climate (cf. Brinkmann & Kvale, 2018). All interviews were conducted in Swedish, audio recorded, and transcribed verbatim. The interview excerpts presented in the findings were translated into English by the authors.

The material was analysed using qualitative content analysis (Graneheim & Lundman, 2004; Graneheim et al., 2017), combining both manifest and latent levels of interpretation. The manifest analysis focused on explicit content, while the latent analysis – guided by neo-institutional theory and governance perspectives – interpreted underlying meanings, such as how collaboration was presented as self-evident, challenging, or policy-driven. Although the interview guide was structured around questions of interpretation, implementation, and the assessment of collaboration outcomes, these questions should not be conflated with the analytical themes that emerged during the analysis. The interview questions served to structure the conversations, whereas the themes were developed inductively from the data and represent a higher level of theoretical abstraction.

The analysis followed Graneheim and Lundman's (2004) four-step model. Firstly, all transcripts were read by both authors to gain an overall understanding. Secondly, meaning units were identified and condensed while preserving their core content. Thirdly, these units were coded and organised into categories linked to the research questions. In the final and fourth step, the categories were analysed at a higher level of abstraction, using neo-institutional and governance theory as analytical tools.

Throughout this process, the substantive categories and themes presented in the results section were developed. The term *content* is used to indicate the study's connection to qualitative content analysis (Graneheim & Lundman, 2004), whereas *themes* refers to a higher level of interpretation, linking the findings to neo-institutional theory and concepts of governance. Accordingly, the results section presents both the substantive categories identified at the manifest level and the themes developed at the latent level. The analysis combined an inductive approach in the initial stages with theoretically informed interpretation in the later stages, ensuring that theory did not prematurely shape the data.

As both authors are active within the Swedish higher education sector, we are familiar with the educational context. This brought both advantages and potential challenges. One advantage was the insight we had into the organisational conditions that shape professional education, which facilitated the interpretation of the interview material. However, our positions as researchers within the same sector may also have led participants to perceive us as colleagues, potentially granting us access to contextual information beyond the interview situation. We addressed this risk through reflexive awareness and by

excluding from the analysis any information not collected during the interviews. Coding and interpretations were jointly reviewed by both authors to minimise subjective bias and ensure that ethical considerations were central throughout the analytical process.

The study forms part of a larger project that was judged not to require ethical review by the Swedish Ethical Review Authority (Dnr 2024-02454-01) and it adheres to the ethical guidelines of the Swedish Research Council (2024). Participation was voluntary, and all programme directors were informed verbally and in writing about the purpose of the study, their right to withdraw at any time, and the confidential treatment of their data. Informed consent was obtained prior to each interview. To protect participant anonymity, all quotations have been anonymised and coded.

Findings

DLOs in higher education steer both the direction and evaluation of professional programmes. To frame the analysis that follows, we first provide an overview of how collaboration-related outcomes are formulated in the Swedish Higher Education Ordinance (SFS 1993:100) for the four programmes under study. Across programmes, these outcomes repeatedly emphasise students' ability to collaborate in different ways, such as through professional conduct, teamwork, cooperation with other occupational groups, and the planning, implementation, and evaluation of collaborative interventions. Although the exact wording varies between programmes, both understanding and practical capacity for action in complex contexts are foregrounded. Table 2 presents the collaboration-related DLOs as formulated in the Swedish Higher Education Ordinance (SFS 1993:100). In the Ordinance, each programme includes three such outcomes, which are reproduced in the table.

In the subject teacher programme, collaboration is primarily tied to pedagogical settings. Students are expected to identify pupils' needs for special educational support and, working with others, to plan, deliver, and evaluate lessons. An interprofessional perspective is not made explicit, however; instead, collaboration is mainly understood within the school's internal organisation.

In the social work programme, by contrast, the outcomes stress insight into teamwork and cooperation with other professional groups. Students are to demonstrate both an understanding of, and the practical capacity to conduct, social work in collaboration, but the goals are formulated in a fairly general way, leaving significant room for interpretation regarding how collaborative competence should be understood and developed.

Table 2. Collaboration-related degree learning outcomes in the four programmes.

Degree learning outcomes – Subject teacher education	Degree learning outcomes – Social work	Degree learning outcomes – Special needs education	Degree learning outcomes – Health care counselling
“Demonstrate the ability to adopt a professional approach and manner”	“Demonstrate insight into the importance of teamwork and collaboration with other professional groups”	“Demonstrate insight into the importance of teamwork and collaboration with other professional groups”	“Demonstrate the ability to engage in teamwork and collaborate with other professional groups”
“Demonstrate the ability to identify, and in collaboration with others, address pupils’ needs for special educational support”	“Demonstrate such skills and abilities as are required to carry out social work at different levels in society, in collaboration with the individuals concerned”	“Demonstrate the ability to design and participate in the work of action programmes in collaboration with relevant actors”	“Demonstrate the ability, independently and in collaboration with patients and their relatives, to plan, carry out, and evaluate social and psychosocial interventions at individual and group level”
“Demonstrate the ability to plan, carry out, evaluate, and develop teaching and other educational activities independently and together with others, with the aim of optimally stimulating each pupil’s learning and development”	“Demonstrate the ability to adopt a professional approach and manner”	“Demonstrate advanced ability to act as a qualified conversation partner and advisor on educational issues to colleagues, parents, and others concerned”	“Demonstrate the ability to adopt a professional approach and manner in relation to patients and their relatives”

In the special needs education programme, collaboration is linked in particular to working with action plans and to the role of a qualified conversation partner and advisor on pedagogical matters. Here, collaboration appears primarily to serve a consultative function within existing school structures, rather than representing interprofessional collaboration in a broader sense.

The health care counselling programme is decidedly more action-based. Students must demonstrate an ability to work in teams and collaborate with other

professional groups and independently plan, implement, and evaluate interventions in collaboration with patients and relatives. Collaboration is thus presented as a competence that is actively practised in clinical environments, in clear contrast to the more understanding-oriented outcomes in the other programmes.

This overview serves as background information. In the following sections, we analyse how collaboration outcomes are interpreted, enacted, and assessed within the four programmes. The results are presented in the same order as in Table 1 and 2: the subject teacher programme, the social work programme, the special needs education programme, and the health care counselling programme. The substantive categories and themes reported below emerged through a stepwise qualitative content analysis of the interview material. As described above, the material was first organised into categories through manifest analysis, followed by a latent interpretation in which neo-institutional theory and governance perspectives were used to discern patterns in the programme directors' accounts. The quotations in the results section were selected to illustrate the analytical themes identified.

Interpreting collaboration-related degree learning outcomes

In this section, we use a neo-institutional lens to analyse how collaboration-related outcomes – which are set out in the Higher Education Ordinance, but differ in phrasing and concreteness across programmes – are rendered meaningful within the four programmes. As defined above, we draw on the notions of translation (Sahlin & Wedlin, 2008), loose coupling (Meyer & Rowan, 1977), professional logics (Bucher et al., 2016; Wackerhausen, 2009), boundary work (Bucher et al., 2016; Gieryn, 1983), and isomorphism (DiMaggio & Powell, 1983) to capture how policy acquires local meaning. These concepts allow us to analyse both the distance between policy and practice and the ways in which professional logics and institutional norms shape the interpretation of collaboration outcomes. The tension between collaboration as a taken-for-granted practice and as an explicit policy formulation becomes particularly salient here.

In teacher education, collaboration is mainly interpreted as collaboration within the school setting in which teachers practice their profession. The outcomes are perceived as unclear: 'The goals are perhaps not always super clear. Some goals include some kind of collaboration, but it may not be explicitly expressed.' Collaboration thus appears to be more of an implicit precondition than an explicit goal: 'I don't see any – if we're talking about collaboration with actors outside the school.' In sum, collaboration is described as something that is taken for granted in school practice, rather than as a competence to be defined or developed through policy. This reading can be understood through the notion of professional logic (cf. Bucher et al., 2016; Wackerhausen, 2009) as follows: the

teaching profession is strongly embedded in the school's organisational structures, and the outcomes therefore reinforce established, 'self-evident' practices rather than introducing new expectations.

In social work education, the material conveys the view that collaboration is self-evident for the profession, yet the phrasing of the outcomes generates uncertainty. As one director puts it: 'They do more than demonstrate insight; [it depends on] what you put into the concepts of collaboration and teamwork. That may be what causes problems.' The formulation 'demonstrate insight' is seen as particularly challenging: 'It is very difficult to assess something called insight. How can one show that a student has insight?' Collaboration accordingly risks being reduced to a symbolic marker rather than an operative tool. At the same time, the mere existence of the outcomes is regarded as an institutional reminder: 'I almost think it would be easy to lose sight of it, if it weren't explicitly written.'

This indicates that outcomes function primarily as means of legitimization rather than guidance. They uphold a shared rhetoric, but are translated into local practices without being fundamentally changed, exemplifying loose coupling and ceremonial compliance (Meyer & Rowan, 1977).

In special needs education, collaboration is more explicitly tied to professional identity. Programme directors state that 'almost everything the special educator does is done in collaboration with others.' Collaboration is seen as both a practical skill and a professional stance, yet tensions between cooperation and independence are emphasised: 'The degree ordinance puts strong emphasis on cooperation and collaboration with other professional groups. But it also stresses independence.'

Another layer of complexity emerges from the differences between courses: 'I'd say it depends on who the course coordinator is. Unfortunately.' Thus, a great deal hinges on local interpretations and priorities rather than on the literal wording of the outcomes. From a neo-institutional perspective, this can also be understood as a condition for translation. Relatively open policy formulations thus enable programmes to reinterpret collaboration outcomes in ways that align with local professional logics and organisational conditions.

Taken together, these examples indicate a duality. Collaboration is a recurring element of the special educator's work, yet it is continually negotiated in relation to the requirement for independence and, in practice, between course coordinators. Boundary work (Bucher et al., 2016) is key to understanding this dynamic; the outcomes become an arena where the profession's boundaries are drawn, negotiated, and at times redefined, both in relation to other professions and within the programme itself.

In health care counselling, collaboration acquires a distinctly practical meaning. Formulations such as 'demonstrate the ability to work in teams and collaborate with other professional groups' make the outcomes concrete and

assessable: 'It is not enough to display insight; here, it is the ability that should be assessed, and which we also assess very clearly.' Collaboration is likewise viewed as a core professional competence: 'I would say they are incredibly central and important, and that is essentially what it is all about.'

This shows how the outcomes have a direct, practical significance in this context, rather than a symbolic function. They are closely aligned with the established logic of health care, where interprofessional teamwork is taken for granted as a mode of working. This is an instance of isomorphism (DiMaggio & Powell, 1983), whereby education internalises the institutional norms of the field and renders policy requirements self-evident and operative. In this case, the strong alignment between professional practice and educational objectives means that collaboration outcomes in teaching and assessment are easier to operationalise than in programmes where such alignment is weaker and translation processes are more extensive.

Across the four programmes, three recurring patterns can be discerned in how collaboration outcomes are interpreted. At the manifest level these concern differences in expression and focus. At a latent level they can be read as themes that illuminate broader institutional patterns. They are as follows:

1. Local translations shaped by professional logics. Outcomes are given meaning in relation to each profession's core remit. In teacher education, collaboration is interpreted almost exclusively within school structures. In social work, it is seen as self-evident yet difficult to operationalise. In special needs education, it is identity-bearing yet continuously negotiated in relation to independence. In health care counselling, it is an operational core competence.
2. Semantic uncertainty and loose coupling. Phrases such as 'demonstrate insight' create interpretive problems – most clearly in social work – leading to uncertainty regarding what is actually to be assessed. Outcomes thereby tend to serve legitimating rather than guidance functions.
3. Boundary work and professional identity. In special needs education in particular, collaboration outcomes become an arena for negotiating the relationship between independence and cooperation. However, in teacher education and health care counselling, collaboration is also used to demarcate what belongs to the profession.

In sum, interpretation is primarily shaped by professional logics and identity work, rather than by the literal wording of the outcomes. Policy texts thus do not steer practice uniformly; rather, they function as a shared rhetorical frame within which divergent practices emerge through an interplay of translation, loose coupling, and, in the case of health care counselling, isomorphism – whereby similar formulations conceal substantial differences in practical meaning.

Implementation of the collaboration-related degree learning outcomes

While the interpretation of the DLOs is shaped by professional logics and loose coupling, this section highlights how their implementation is shaped by governance processes. The analysis explores how resources, organisation, and shifts in responsibility influence what becomes practically possible, and how the absence of clearly institutionalised structures can lead to person-dependent solutions and local priorities. Implementation is therefore not simply a straightforward translation of the wording of the DLOs, but rather the result of a complex process of interpretation and enactment, in which policy requirements encounter organisational and contextual conditions. Indirect governance (Ball, 2003) is a particularly useful concept here, revealing how timetabling, course and programme architecture, and placement organisation indirectly shape the conditions for collaboration.

In teacher education, school-based placements emerge as the main arena for collaboration, alongside project-based activities and guest lectures. However, collaboration is primarily understood in terms of the logic of the school: 'If we're talking about collaboration within a school, with other teachers and colleagues, then we can see it in our placement courses.' This suggests that collaboration is largely confined to existing structures within the school, rather than extending to encounters with other professions. Efforts to introduce interprofessional elements are repeatedly hindered by logistical and organisational barriers. As one programme director noted, 'There are a lot of logistical issues [around teacher education] – just fitting it into the timetable for 18 subjects.' This makes it clear that the limitation is not one of reluctance, but of organisational conditions. It illustrates how faculty structures and programme organisation function as governance instruments that indirectly limit opportunities to realise collaboration.

In social work education, collaboration likewise occurs mainly through placements, practice-based tasks, and guest lectures: 'It's implemented most clearly in semester four, before and during placement.' As in teacher education, it is during placements that collaboration becomes most tangible. Yet several directors stressed that this work is highly dependent on individual commitment: 'Much of this, when it comes to teaching, unfortunately becomes quite person-dependent'. This indicates that implementation is often mediated by individual engagement, local pedagogical priorities, and organisational conditions. From a governance perspective, the absence of strongly institutionalised structures means that collaboration is realised through the initiatives of course coordinators and teachers, which may both enable adaptation to professional practice and generate variation across programmes and institutions. Attempts to establish more consistent interprofessional arrangements, such as joint courses with police or psychology programmes, were described as difficult to organise: 'We really tried

to include collaboration in the learning outcomes [...] but it was so hard to organise.' This illustrates how organisational and resource-related conditions effectively set the boundaries for collaboration more than the formal policy texts do.

In special needs education, collaboration is more continuously integrated, for example through joint courses with special needs teachers, mentoring groups, and guest lectures: 'You could say that in the first year we work with [the DLOs] to some extent, but we go more deeply into them in the second year of the programme.' Thus, collaboration is embedded in the programme structure in a progressive fashion. However, barriers linked to course coordinators' priorities are evident: 'It's difficult to get course coordinators to understand the importance of collaborating with another profession during the programme.' This highlights how implementation largely depends on local priorities. The governance dimension is apparent here: although the outcomes are nationally defined, their practical implementation is decided by individual coordinators. This exemplifies the type of responsabilisation and local enactment described by Ball (2003), whereby responsibility is transferred from central policy texts to local actors.

In the health care counselling programme, collaboration is integrated in the most consistent and concrete way. Students engage in case-based exercises, interprofessional encounters, and placements. One example is 'IPL Stroke Day', where different student groups meet online. Here, the collaboration assumes a clear and practical form, already at the education stage. At the same time, variation between universities is evident: some programmes incorporate collaboration into all courses, while others rely mainly on placements. 'We don't have a separate placement course in our programme. Instead, placements are integrated across the five courses we have.' This shows that even within one programme, differences in course structure and faculty affiliation can create different conditions. These variations illustrate how organisational models act as indirect governance, with local structures determining how collaboration is realised in practice despite similarly formulated DLOs. Overall, the implementation phase highlights the tension between reflection (in campus-based teaching) and action (in placements or other authentic learning environments).

Recurring patterns emerge across the four programmes in how collaboration outcomes are enacted in practice. At the manifest level, three categories can be distinguished which, at the latent level, can be understood as themes reflecting broader governance patterns:

1. Dependence on resources. Collaborative elements are primarily realised in programmes where time, staff, and partners are available. In teacher and social work education, this is especially evident during placements, where opportunities for collaboration vary according to supervisors' engagement and the local conditions of schools or social service agencies.

Where resources are lacking, collaboration becomes sporadic and dependent on individual champions.

2. Organisation as indirect governance. Timetabling, course and programme structures, and faculty boundaries function as governance mechanisms that indirectly determine what is possible. This can be seen in the complex organisation of subjects in teacher education and in special needs education's reliance on the priorities of individual course coordinators. The institutional setting also matters. Which other professional programmes exist on campus, and how they are coordinated, strongly influences the conditions for interprofessional learning.
3. Shifts of responsibility in implementation. Implementation is frequently delegated to placement contexts, supervisors, and course coordinators, a pattern that can be understood in terms of policy enactment and responsabilisation. This generates variation across both programmes and universities. The differences between health care counselling programmes, ranging from fully integrated collaboration in every course to a model where collaboration mainly occurs during placements, demonstrate how local decisions transfer responsibility from central policy to individual actors.

In sum, implementation is not a direct translation of the formal DLOs; rather, it is shaped through governance processes in which resources, organisation, and local priorities play a decisive role (cf. Ball, 2003; Braun et al., 2011). From a governance perspective, a duality becomes apparent: national policy texts provide a shared framework, but are locally enacted and sometimes loosely coupled in practice (Meyer & Rowan, 1977; Sahlin & Wedlin, 2008). Similar formulations in the Higher Education Ordinance can therefore result in outcomes ranging from fully integrated activities, as in health care counselling, to sporadic, person-dependent ones, as in social work. This raises questions of equivalence and the reach of governance in professional education (DiMaggio & Powell, 1983), revealing the tension between top-down regulation and the professional logics that shape local translations.

Assessment of the collaboration-related degree learning outcomes

This section analyses how collaboration-related DLOs are examined and assessed within the four programmes. Drawing on neo-institutional and governance perspectives, we explore how the policy requirement for students to 'demonstrate the ability to collaborate' is enacted in different assessment practices. Using the concepts of loose coupling and ceremonial compliance (Meyer & Rowan, 1977), we show how formal outcomes are translated into assessment formats that to varying degrees test students' actual capacity for action. At the same time, we

use the concept of responsibilisation (Ball, 2003) to reveal how the responsibility for assessment is often delegated to supervisors in placement or field-based environments. Overall, the analysis focuses on the tension between policy demands centred on ability and organisational and didactic conditions that lead to collaboration primarily being examined in terms of insight.

Reflection and theoretical tasks dominate in teacher education, along with assessment during placements. One director explained: 'They have to produce a digital teaching resource as a group. Of course, that presupposes that the collaboration within the group works.' In this case, collaboration primarily serves as a means of completing other tasks, rather than being assessed in its own right. It is also rarely examined as a distinct competence: 'I don't think there's anything that's actually assessed.' Instead, evaluation is delegated to placement supervisors: 'With such an assignment, you can assess their ability to reflect on their own abilities. But testing the abilities themselves – that has to be done in the school.'

Thus, collaboration in teacher education is mainly assessed indirectly and, in effect, is transferred to placement contexts. It is difficult to design authentic assessments within the university framework that mirror the collaborative situations that students will encounter in their future professional practice. Limited resources, requirements for fairness and standardisation, and course structures all contribute to this, as do didactic choices, such as prioritising reflection and theoretical understanding over action-based testing. This exemplifies how governance conditions interact with professional considerations, resulting in collaboration often being assessed through reflection rather than through practice.

In social work education, assessment typically takes the form of reflective case analyses, seminars, and written exams: 'It's assessed through seminars [...] But sometimes there can be a written or take-home exam where you ask questions about the literature.' Here, collaboration is evaluated through students' reasoning about the concept rather than through their demonstrated ability. Programme directors expressed concern about this: 'Not all students will necessarily be in a placement where they collaborate, for example.'

These accounts indicate a recurring transfer of responsibility, where the concrete assessment of collaborative ability is left to placement supervisors and local practice settings. This can result in variation in assessment practices across placement sites. While such variation may reduce comparability, it may also reflect adaptation to the specific conditions of professional practice in different settings. From a neo-institutional perspective, such variation can be understood as a form of local translation of relatively abstract policy formulations (Sahlin & Wedlin, 2008). From a governance perspective, this represents a form of performative governance (Ball, 2003); the assessment formally fulfils policy requirements, but the practical evaluation is delegated to local actors.

In special needs education, collaboration is assessed primarily through case-based assignments, seminars, and written reports. One programme director described the difficulty of demonstrating ability: 'You have to do it by describing what you think you would do, in speech during seminars, and in writing [...] But I think it's really difficult to see exactly how students show their ability, even though that's what we're assessing.'

Here, the discrepancy between the wording of the outcomes and the practical assessment is particularly apparent. It is the students' accounts of intended actions that are assessed, not the actions themselves. This can be understood as a form of ceremonial compliance (Meyer & Rowan, 1977), where assessment appears to fulfil the requirement to test ability, but in practice actually measures insight. Collaboration thus risks becoming a symbolic rather than an operational competence within the programme.

In health care counselling, role-playing, interactive exercises, and placement assessments are all used: 'We assess them partly through take-home exams, but also through interactive exercises and role-playing.' Unlike the other programmes, collaboration is assessed here through activities that more directly reflect professional practice. Nevertheless, frustration is expressed over limited resources and available methods: 'To assess each of my students' ability for teamwork and collaboration - I can't do that [...] we don't have very good assessment formats for it.' This demonstrates that, even where the professional logic makes collaboration crucial, there is a lingering tension between ambition and feasibility. Governance requirements related to fairness and standardisation limit the possibility of conducting genuinely practice-based assessments.

Assessment formats that are used to evaluate collaboration-related outcomes vary across the four programmes, but several recurring patterns can be identified. These patterns highlight the challenges involved in assessing complex professional competencies within educational programmes (cf. Messina Dahlberg & Gustavsson, 2024; Mulder, 2017). At the manifest level, three substantive categories can be distinguished. At the latent level, these can be read as themes illuminating broader patterns in how collaboration is tested for and assessed:

1. Reflection on action. Collaboration is most often assessed through written or oral reflection. In teacher and social work education, this is done through case assignments and take-home exams; in special needs education, it is done through case tasks and seminars. These forms of examination assess students' understanding, but rarely their actual ability to collaborate.
2. Shifting responsibility to placements. In both teacher and social work education, the assessment of collaborative ability is effectively delegated to supervisors in placement settings. This provides students with authentic opportunities to demonstrate their skills, but also produces

variation across sites, undermining consistency and equivalence in assessment.

3. Insight versus ability – the gap between policy and practice. Although the DLOs specify that students should demonstrate ability, in practice they often only demonstrate insight. This is most evident in special needs education, where students describe what they would do rather than showing what they can do. However, similar patterns appear in the other programmes, albeit less pronouncedly.

Overall, these themes show that assessment practices are shaped at the intersection of pedagogical considerations, institutional frameworks, and professional logics. Differences between programmes reflect both educational level and local governance conditions: at postgraduate level, collaboration is assessed somewhat more through action-based tasks, whereas undergraduate programmes focus more on reflective understanding. However, this is not a strict divide; it varies according to the established logic of each profession and the organisational constraints that define what is practically feasible.

From a governance perspective, the gap between policy and educational practice can be understood as a manifestation of policy enactment (Braun et al., 2011) and performative governance (Ball, 2003): national requirements are translated locally in ways that make them manageable, but that also alter their meaning. Consequently, ability often becomes synonymous with insight. The result is that similar DLOs lead to divergent assessment practices, ranging from the more authentic exercises in health care counselling to the indirect, reflective forms in the other programmes, highlighting the tension between reflection as the dominant mode of assessment and action as something rarely tested directly.

Discussion

This study examined how collaboration-related degree learning outcomes are interpreted, implemented, and assessed in four Swedish professional education programmes: the social work programme, the subject teacher programme, the special needs education programme, and the health care counselling programme. Drawing on neo-institutional theory and a governance perspective, the findings show how collaboration-related outcomes are translated through professional logics and organisational conditions within these programmes. The study contributes to VET research and scholarship on professional education by broadening the perspective beyond health-care education, showing how collaboration-related outcomes can appear both self-evident and difficult to operationalise in educational practice, and explaining why their meaning and implementation vary across programmes. In contrast to previous research on interprofessional learning, which has largely focused on health and medical

education where collaboration is already institutionalised (e.g., Banks et al., 2019; Lapkin et al., 2013; van Diggele et al., 2020), the findings show that similar policy ambitions take different forms in fields where collaboration is less embedded in professional routines. The findings further suggest that professional logics and governance arrangements shape what is possible to teach, practise, and assess. Similar dynamics have been reported in Nordic VET research, where collaboration between teachers and researchers is influenced by organisational arrangements and local conditions (Gustavsson, 2024).

From a neo-institutional perspective, the variation observed across programmes can be interpreted as an effect of translation processes, whereby relatively abstract policy formulations are interpreted in relation to professional logics and organisational conditions (Meyer & Rowan, 1977; Sahlin & Wedlin, 2008). This suggests that variation should not necessarily be interpreted as a failure of implementation, but rather can be seen as a consequence of how programmes translate policy requirements into local educational practices. The seemingly self-evident rhetoric of collaboration reflects established professional logics, but it becomes more difficult to operationalise when such logics encounter demands for formalisation and assessment within higher education governance structures.

Three mechanisms emerge as central to explaining this variation. Firstly, professional logics act as interpretive filters. When collaboration aligns closely with the profession's core remit, it becomes operational and assessable; when it does not, however, it is reduced to rhetoric or reflection. Secondly, organisational structures function as a form of indirect governance, with timetables, programme architecture, and placement structures determining what can actually be done. Finally, the wording of the outcomes creates directional effects. Formulations such as 'demonstrate insight' invite reasoning, whereas 'demonstrate ability' requires arenas and resources for action-based testing. Together, these mechanisms contribute to the risk of uneven assessment of collaboration across universities and practice sites, even when the formal outcomes are similar.

What distinguishes this study from earlier work is that it not only identifies variation, but also explains it by linking differences in interpretation, implementation, and assessment to the combined effects of professional logics, organisational governance, and the wording of outcomes. This analytical integration of neo-institutional and governance perspectives provides a new lens for understanding how collaboration as a competence is shaped through translation rather than simple implementation.

This creates a tension that cannot be resolved by either increased regulation or greater autonomy. While it is relatively easy to standardise reflection and ensure fairness, action is more profession-oriented, as well as being more resource-intensive and difficult to calibrate. Our results thus point to a logic of balance

rather than a simple solution. If the language of outcomes continues to oscillate between *insight* and *ability*, this oscillation must be intentional and transparent. The question to ask is: When should collaboration be demonstrated through action, when should it be assessed, and what minimum levels of support and organisational coordination are needed to make such assessment feasible? In practice, the issue is less about *adding more collaboration*, and more about using a didactic and organisational design that creates small but recurring opportunities for students to *practise* collaboration in ways that are also assessable. Such an approach can complement large, resource-intensive initiatives while reducing the gap between intended outcomes and actual practice. This tension between reflection and action also resonates with findings in VET research, where reflective formats often dominate the assessment of complex professional competencies (Messina Dahlberg & Gustavsson, 2024; Mulder, 2017).

From a governance perspective, the implications involve reducing loose coupling by developing clearer criteria for when ability should be assessed in action, and by supporting the development of indicators that capture observable collaborative behaviours, such as common problem definitions and cross-professional coordination. This in turn requires organisational conditions such as timetable coordination, shared spaces, and supervisor calibration that make such assessments possible. At programme level, alignment between outcomes, teaching, and assessment is essential. If the degree learning outcome requires demonstrated ability, students must also be given opportunities to practise it.

In this context, equivalence should be understood as functional rather than formal. Local variation in design is not problematic in itself, but it becomes so when students are assessed on non-comparable grounds. A reasonable aim, therefore, is to ensure *functional equivalence*, so that students, regardless of where they are studying, have comparable opportunities to demonstrate collaborative ability at some point during their education. Such assessments should be supported by simple yet transparent indicators and basic calibrations. Achieving this requires less new documentation and more coordinated organisation and pedagogical design.

From a higher education pedagogy perspective, the findings have direct implications for students' opportunities to develop collaborative competence. When collaboration is primarily treated as an object of reflection rather than an action-based practice, students develop theoretical understanding but not practical capability. The findings suggest that collaboration is more likely to become part of professional development when teaching and assessment formats allow students to interact, make group decisions, and negotiate responsibilities in authentic situations. Such arrangements enable policy to be translated into practice and reveal how organisational conditions concretely affect students' opportunities to develop the competence that is formally required.

The study has certain limitations. The material mainly reflects the organisational and strategic level through the perspectives of programme directors, and does not capture in detail how collaboration is taught and assessed in classrooms, seminars, or practice environments. Future research should therefore include course coordinators, supervisors, and students, and, where possible, direct observations of teaching and assessment. Comparative studies of institutions with different organisational conditions could further clarify how forms of indirect governance, such as timetabling and programme architecture, affect opportunities for practice-based assessment.

Despite these limitations, the findings suggest that collaboration in professional education is shaped more by programme design and organisational conditions than by curriculum content. The programme directors' accounts indicate that students' opportunities to practise collaboration depend on how learning outcomes, teaching activities, and assessment formats are organised within programmes. When these elements are aligned, collaboration appears more likely to be addressed as a form of professional practice, and not just a topic for reflection.

More concretely, this may involve assessing collaborative competence through teaching and assessment designs that combine reflection and action. Structured role-playing or scenario-based exercises with clear assessment criteria can make visible how students coordinate and negotiate responsibility. Short inter-professional case seminars and shared calibration among placement supervisors can further enhance equivalence and create authentic spaces in which collaboration is actually practised rather than merely discussed.

At a broader level, this study illustrates how governance and pedagogy are mutually constitutive in professional education. Policy creates the pedagogical conditions for learning, while pedagogical practices translate and reshape policy in action. It is in this interplay between the logic of governance and the didactic design of education that students' opportunities to develop collaborative competence are formed. Together, the study demonstrates how governance, organisation, and pedagogy jointly shape collaborative competence, and how similarly formulated policy texts are translated locally into divergent forms of professional learning.

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