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Low education in a high skills society – job quality among workers at risk

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"Nevertheless, we regard *knowledge* and *comprehension* as characteristics of craft rather than of experience, and take it that craftsmen are wiser than experienced people, on the supposition that in every case wisdom follows along rather with knowledge than with experience. This is because craftsmen know the cause, whereas experienced people do not."

Artistotle in *Methaphysics*

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Tove Mogstad Aspøy

Oslo, september 2022

Summary

During the past decades, the rhetoric and the policy vision on what is often termed "the high skills society" has largely come to realization in many advanced economies. As the emphasis on the knowledge economy, upskilling and the formalization of skills has achieved hegemony in the public discourse, the demand for educated workers has steadily increased. Even if vocational education is sought after in parts of the labour market, those without a university or college degree are left with fewer opportunities in terms of job quality, pay and status. In this thesis, I address the relationship between skills and job quality among workers that are the most at risk of falling behind in a high skills society: those without a higher education background.

In this thesis, I highlight two central aspects of job quality: job autonomy and job learning. I ask: What are the opportunities for job autonomy and job learning for workers without higher education, and how do these opportunities differ according to different institutional contexts? I focus on both workers who have not completed upper secondary school, and workers who completed upper secondary school – with or without vocational qualifications – but who have no credentials from higher education. The research I have conducted is partly comparative across countries, and partly embedded in the Norwegian setting. Employing both quantitative and qualitative methods, I explore opportunities and limitations for these workers in Norway, contrasted with other Western countries, and with other education groups. This broad approach has enabled me to highlight a diverse set of factors that contributes to the understanding of job quality within the context of the high skills society.

The thesis consists of four articles addressing institutional contexts at different levels – state, educational system, workplace and trade. The relationship between formal education and job quality is explored in Articles 1 and 2. These articles have a quantitative design based on data from the Programme for the International Assessment of Adult Competencies (PIAAC). The articles demonstrate how job autonomy vary between educational groups, but also suggest that the penalty of not having higher education vary between countries. Both the relationship between education and job quality within countries and between countries are studied. Previous research has stated that Scandinavian workers are fortunate when it comes to job autonomy, Article 1 contributes to this research by focusing specifically on workers with no education above upper secondary school.

The selection of countries in the study is motivated by employment regime theory and the differences between Scandinavian countries on the one hand, characterized by their relatively strong trade unions, collective agreements, and compressed wage structure, and the liberal countries of the UK and Ireland on the other. The study suggests that in Scandinavia as well as the UK, workers without higher education seem to be selected into occupations offering relatively little informal job learning. The study suggests that the high job autonomy of Scandinavia also benefits workers without higher education. As a comparison, UK and Irish workers without upper secondary school experience the least job autonomy in the study.

This finding is also reflected in Article 2, where seven countries are compared: Sweden, Denmark, Norway, Germany, Austria, the UK and Ireland. The choice of countries is motivated by skill formation theory and differences in the national system for vocational education and training (VET). In this article, the focus is on vocationally-educated workers, and an assumption, as suggested by previous research, is that these workers will be more autonomous in countries with VET systems emphasizing a broad skill base. We find that Irish workers with vocational education experience less job autonomy than workers with a university or college education. Contrary to our expectations, however, we find no such difference in the UK. Nevertheless, vocationally skilled workers in the Continental and Scandinavian countries enjoy higher autonomy than their counterparts in England and Ireland do. Benefits from vocational education in countries emphasizing a broad skill base are particularly high for Austrian workers with vocational education at higher levels. Article 2 also presents analyses on the relationship between cognitive skills and job autonomy. An important finding is that in the UK and Ireland, there is a relationship between cognitive skills and job autonomy independently of educational level. This is a finding that warrants further research.

While the two first articles present snapshots of job quality, the process of upskilling is the main theme of Articles 3 and 4. In Article 3, I try to fathom the complexity of reasons and motivations that underlie formal upskilling at the institutional level. I draw on previous research about the process of professionalizing the cleaning occupation in Norway, where the tripartite body, consisting of two collective actors and the state, were the central stakeholders involved. I interpret this specific case in the light of both skills theory and new institutionalism, a theoretical framework which emphasizes educational transfer. In line with the educational transfer framework, I interpret

a change in educational skills – the introduction of the trade certificate for cleaners – as a way of legitimizing an occupation with a poor reputation, by "borrowing" legitimacy from the educational system. I suggest that the stakeholders' strategy was founded on a reliance on knowledge society narratives: that education and skills yield complexity, productivity and job quality. However, this change in 'formal structure' did little to change job quality within the cleaning industry, which was subjected to a strict tender-based regime where price generally outweighed skills. A general application of a collective wage agreement was necessary to improve job quality, demonstrating the limits of upskilling for changing work design, even in a collective bargaining system. The article confirms the arguments posed by power resource theory: that strong trade unions contribute to job quality.

Article 4 has a qualitative design and is based on interviews with young workers who obtained formal qualifications within carpentry or child- and youth care through a specific Norwegian education scheme called the experienced-based trade certificate programme, where workers can obtain vocational skills based on work experience. It explores a case of formalization of skills, focusing on the individual participants motivation to obtain formal vocational qualifications as adults. This study demonstrates how adults can benefit from other routes to formal education than the standard school-based route. Furthermore, even in cases where the formalization of work experience was not important for the performance of the job, the study underlines that this formalization can be valuable for the individual. To the individual workers, the prospect of getting a formal education was an important motivation: The formal trade certificate demonstrated that the job required skills, and the formal papers brought with them increased self-esteem on behalf of the job.

1. Introduction

In recent decades, the world has changed in ways that have immensely affected working life in the Western world. Technological change, globalisation, climate change and demographic change, as well as rising inequality, are trends that influence work organisation, the demand for and supply of labour, and working conditions (Dølvik & Steen, 2020, p. 9–10; World Economic Forum, 2018). Scholars and politicians stress that the rapid development of information and computer technologies has led to a constant demand for a more educated workforce (e.g. Gallie, 2011). Although many modern economies have exhibited a certain polarisation of workforce skills, where parts of working life are characterised by low-skilled labour, overall, the demand for skills has increased (Green, 2013). In this thesis, I address the relationship between skills and job quality among workers[1] that are the most at risk of falling behind in a high skills society: those without a higher education background. Two central aspects of job quality are highlighted: job autonomy and job learning. I focus on both workers who have not completed upper secondary school and workers who have completed upper secondary school and even obtained a vocational education but with no university or college education. The thesis consists of four articles, which thematise the implications of individual points of departure and address different institutional contexts at different levels – state, skill formation system, workplace and trade. They address opportunities and limitations for these workers in Norway in contrast to other Western European countries and other education groups.

Norway went through an enormous industrialisation in the 1870s, towards what we today can refer to as a high skills society combined with an open economy and a generous welfare state (see, e.g. Payne, 2006). The educational system is universalistic and characterised by central government control. The compressed wage structure in Norway contributes to decent working conditions and relatively low inequality: the workers with the lowest pay still earn more than those in many other European countries within similar occupations and the highest paid earn less than what they may would in other national systems. Norway's centralised bargaining system and the strong

[1] In this thesis, I use the word "worker" to refer to a person engaged in any kind of paid work. I do not refer to the legal category "worker", or limb (b) worker, in a UK context. (Limb (b) workers, or dependent contractors, enjoy some but not the full range of employment rights This is a third category, in addition to employee and self-employed (Bertolini & Dukes 2021).)

cooperation between the state and both employee and employer organisations are seen as important drivers behind this egalitarian system (Svarstad & Dapi, 2022).

As in Western Europe overall, an increasing share of the Norwegian workforce of today has a university or college degree. Nevertheless, about 20 percent of the population between the ages of 30 and 65 have not completed upper secondary school, and about 35 percent have no further education above upper secondary school (Statistics Norway, 2021). Although most of the people in these two groups are employed, they are put under pressure in an economy where work power is costly and where higher education is rewarded. Workers without higher education are often offered fewer opportunities than others in terms of pay, career trajectories and job quality.

The work-related penalty of low education is well documented in Norwegian and international research – especially pertaining to wage (see, e.g. Card, 1999; Svarstad & Dapi, 2022) but also so-called nonpecuniary aspects to work, such as the extent to which one enjoys work (Oreopoulos & Salvanes, 2011). Similar to most countries, Norway has certain groups that are marginalised in terms of pay and working conditions, or who may be so in the future. Among workers in Norway who are permanently low paid (about one in five in 2019), people who only completed lower secondary school make up the majority (Svarstad & Dapi, 2022). How does the Norwegian model attend to job quality among those with low formal education? This is of particular importance with increased liberalisation and more irregular working conditions, which may challenge the Norwegian model in the future (see, e.g. Jesnes & Oppegaard, 2020).

1.1 Education and skill: a clarification of terms

This thesis concerns *workers without higher education*. This is not a uniform group of workers, of course. For one thing, it consists of people with educational credentials at different levels: those who never completed upper secondary school, those who have completed an academic track at upper secondary school and those who have completed vocational education. The distinction between academic and vocational upper secondary education, as well as the distinction between general and vocational competencies, is applicable in three of the four articles. In working life, the importance of this distinction may differ according to the way vocational education is organised at the national level and the status it has among employers.

Throughout this thesis, I use the terms "workers without higher education" and "workers with low education" interchangeably. When I refer to this group of workers as "workers with low education", one could argue that I ignore the broad skills that may characterise a vocationally educated worker. Both in public discourse and within educational research, workers may have multiple trade certificates and still be regarded as having a "low education". A more justified term, perhaps, could be "short education", but this may be just as imprecise as "low education", as multiple trade certificates would take years to obtain. The term "short education" is also impractical because it is rarely used within previous research on education and work. Furthermore, a logical consequence would be to replace the term "higher education" with "longer education", which would complicate the matter even more.

In the articles, I also refer to *skill.* Skill is a contested concept (see, e.g. Lloyd & Payne, 2016, p. 39–40), and clarification is needed on how the term is defined and operationalised in this thesis. Skill may refer to *formal* skills obtained from the formal education system or formal certification. However, skills can also be *informal*. Informal skills may refer to cognitive skills, such as numeracy skills, which are thematised in Article 2. Informal skills can also refer to so-called "noncognitive" skills, such as emotional skills. The perception of emotional skills as a skill is disputed and has been criticised (e.g. Lloyd & Payne, 2009). Noncognitive skills are not further treated in the articles.

One issue with "skill" as a concept is that the English term does not translate easily. Clarke and Winch (2006) discuss this issue in relation to the proposed introduction of a common framework for comparing qualifications within the European Union (as a result of the Lisbon Agreement of 2000). Their focus is on the differences between the Anglo-Saxon and German languages. Like German, the Norwegian language offers no perfect equivalent to "skill". In some contexts, the Norwegian word "ferdigheter" is the most relevant translation. For instance, in a Norwegian survey within the Organisation for Economic Co-operation and Development's (OECD's) Programme for the International Assessment of Adult Competencies (PIAAC), "cognitive skills" are referred to as "kognitive ferdigheter". Similarly, "basic skills" translates to "basisferdigheter" in Norwegian. However, in the Norwegian context, "ferdigheter" is rarely used in relation to *work*. Instead, the word "kompetanse" is often used. "Kompetanse" is a much broader term than "skills" and refers to all the formal education, informal training, work experience and individual knowledge a person

holds. In this thesis, when referring to the word "skills" alone, it is generally in reference to a concept closer to the Norwegian "kompetanse". In many cases, however, I refer to more specific type of skills, deploying terms such as formal skills, cognitive skills, and vocational skills. In the context of VET, the term "skilled workers" is also used in reference to a vocational worker with a formal trade certificate. This is especially the case in Article 4.

1.2 Research questions and article presentation

The overarching research question addressed in this thesis is: What are the opportunities for job autonomy and job learning for workers without higher education, and how do these opportunities differ according to different institutional contexts? From this main research question, four subordinate questions are explored:

1. Do workers without higher education experience better job quality in Scandinavia than in liberal countries? (Articles 1, 2)
2. What is the relation between the system for vocational education and job quality among vocational workers? (Articles 2, 3 and 4)
3. What is the potential for upskilling to improve job quality, and how does this relate to the institutional context? (Article 3)
4. How are opportunities and motivations to upskill shaped by the institutional context? (Articles 3 and 4)

Table 1 gives an overview of the four articles and their publication statuses.

Table 1. Overview of the articles

	Article 1	**Article 2**	**Article 3**	**Article 4**
Author(s) and title	Aspøy, T.M. (2019) Low education, high job quality? Job autonomy and learning among workers without higher education in Scandinavia, the United Kingdom and Ireland	Aspøy, T.M. and Nyen, T. Job autonomy, vocational education and cognitive skills in different skill formation systems	Aspøy, T.M. (2020) Job quality through upskilling? The case of the cleaning industry in the collective system of Norway	Tønder, A. H. (2017) When work comes first: Young adults in vocational education and training in Norway
Publication status	Published in *European Societies*	Submitted to *Social Forces*	Published in *Journal of Education and Work*	Published in *International Journal for Research in Vocational Education and Training (IJRVET)*
Research question/ aim	Does the high job quality of Scandinavian working life apply to workers without higher education?	Are vocationally educated workers autonomous in vocational systems based on broad vocational skills? What is the relation between cognitive skills and job autonomy within different systems?	What role can upskilling play in making bad jobs better?	Why do people choose to obtain a trade certificate as adults?
Method	Comparative, quantitative analyses of cross section survey data (PIAAC)	Comparative, quantitative analyses of cross section survey data (PIAAC)	Secondary analyses, theoretical discussion	Qualitative interviews
Institutional perspective/ case	Employment regimes/ welfare systems, Scandinavia, UK, Ireland	Vocational skill formation systems, Scandinavia, Germany, Austria, UK, Ireland	Cleaning industry, vocational skill formation, tripartite cooperation, Norway	Vocational skill formation, trade, tripartite cooperation, Norway

The structure of this introductory part of the thesis is as follows: Chapter 2 provides an overview of changes in the educational level of the population of Western Europe over the past 30 years, as well as a brief outline of research on transition from education to work and on job quality. Then, in Chapter 3, I outline my conception of job autonomy, job learning, skills and institution. In Chapter 4, I present the methodology and design. In Chapter 5, I give a short summary of the articles. In Chapter 6, I discuss the findings.

2. Educational level, transition to work and job quality in Western Europe

The education level of the Western European population has changed over the past 30 years. When looking at figures produced by the OECD's "Education at a glance" reports (e.g. OECD, 2022), the changes are evident. Nevertheless, while the change in certain countries can be described as quite drastic, other countries exhibit a more moderate shift. The development is illustrated in the following three figures, depicting the educational level in the adult population over the past 30 years in seven different countries (corresponding to the seven countries included in the cross-national study in Article 2). Respectively, Figures 2.1, 2.2 and 2.3 demonstrate the share of adults with education below upper secondary school, education at the upper secondary school level and tertiary education, which is education at the university or college level (often, including in this thesis, referred to as "higher education").

Figure 2.1. Population with education below upper secondary school. % of 25–64 year-olds, 1991–2020
Source: (OECD, 2022)

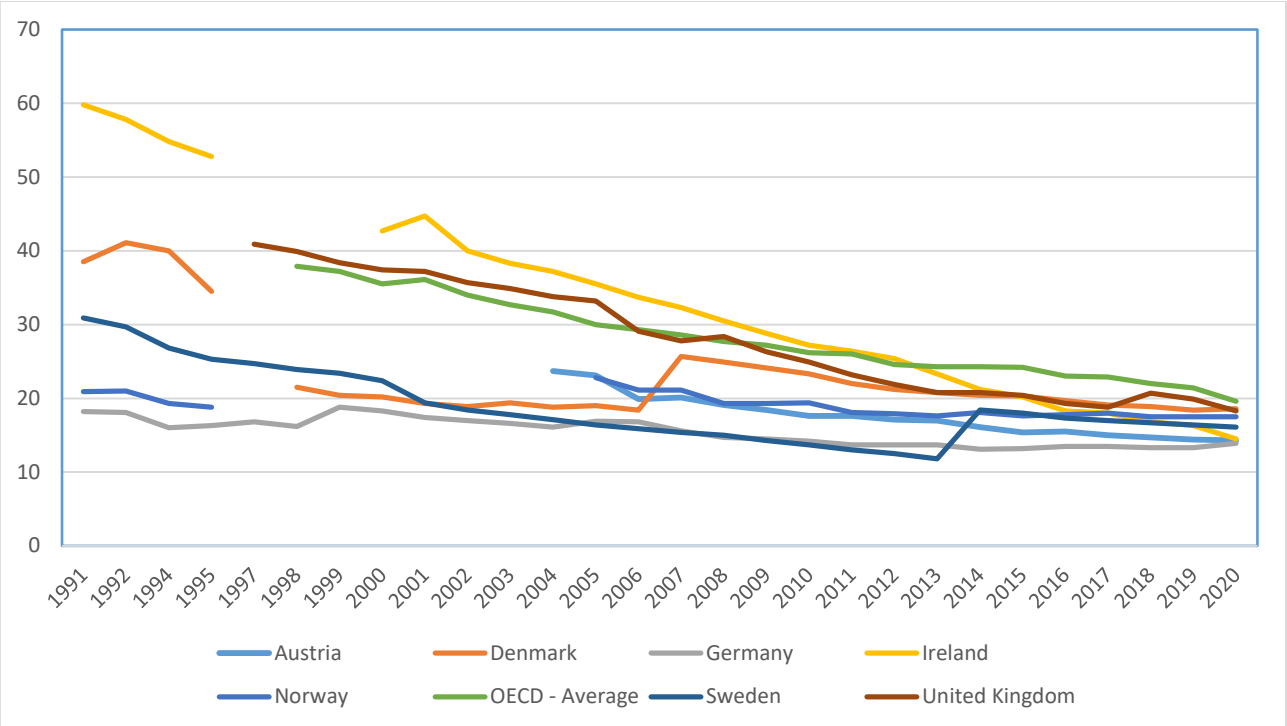


Figure 2.2. Population with upper secondary school. % of 25–64 year-olds, 1991–2020 Source: (OECD, 2022)

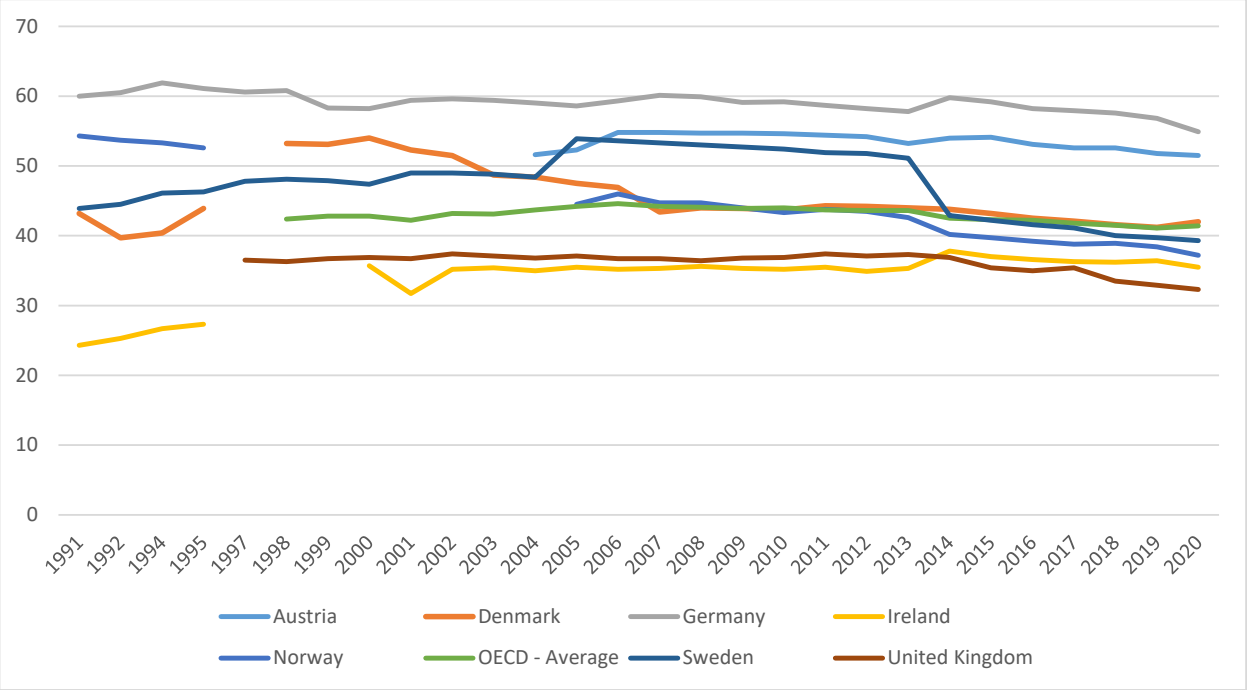
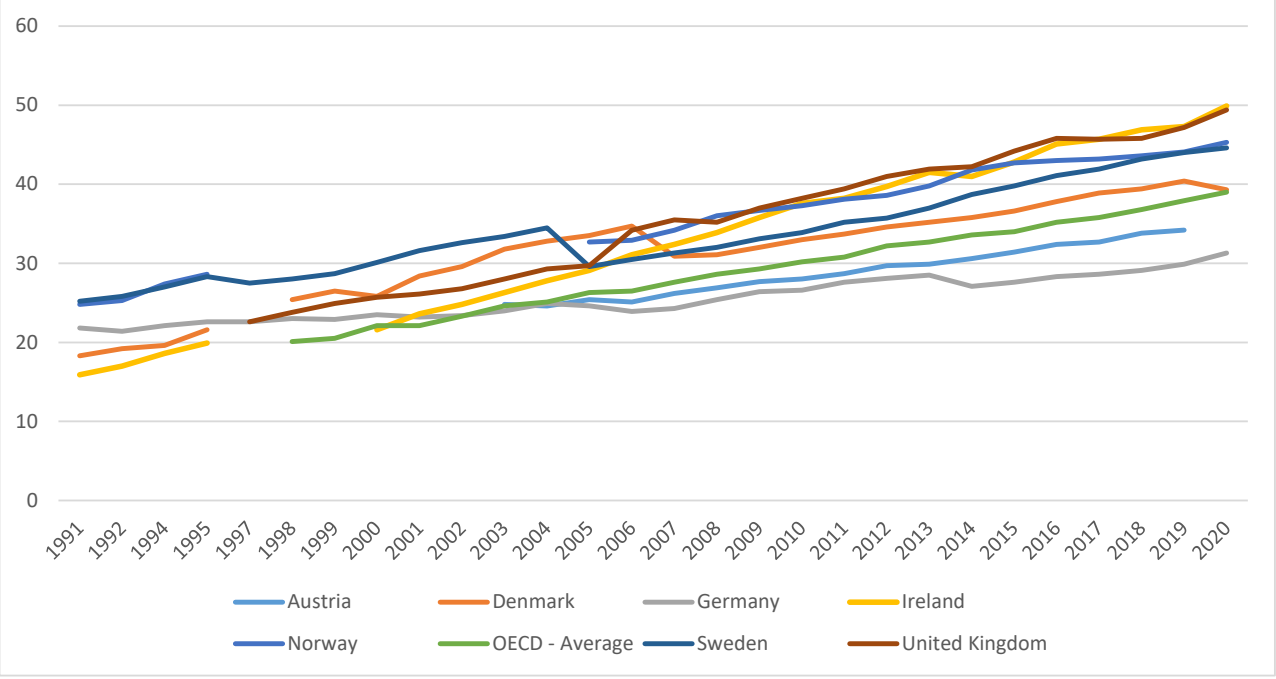


Figure 2.3. Population with tertiary education. % of 25–64-year-olds, 1991–2020 Source: (OECD, 2022)



As to be expected, it is evident that the share of adults with below upper secondary school has decreased in most countries, although the change is more dramatic in Ireland, the United Kingdom and Denmark than in the other countries. Likewise, the increase in the share of adults with tertiary education is noticeable, especially in Ireland and the United Kingdom. Compared to the other education groups, the share of workers in upper secondary school is remarkably stable across time. However, since the share of adults in the other education groups has changed, having only completed upper secondary school (which includes vocational education) represents a different relative status in the labour market today than it did 30 years ago.[2] At the same time, the expansion of higher education has sparked off the phenomenon of over-qualification as a field of research – how skills acquired through formal education are actually deployed in the working life (e.g. Allen & van der Velden, 2001; Leuven & Oosterbeek, 2011; Lloyd & Payne, 2013). Based on data from 2010, Green (2013, p. 139) demonstrates that self-reported overskilling is more common in the United Kingdom (40%) and Ireland (38%) than in the other countries: Norway (27%), Denmark (25%), Sweden (34%), Germany (27%) and Austria (17%). This conception of over-qualification often points to the expansion of higher education but is also made relevant in research focusing on vocational education (e.g. Winch, 2011).

Opportunities for people without higher education have been studied in different branches of the social sciences. A substantial body of research focuses on the association between low education and labour market penalties, especially unemployment (see, e.g. Bäckman et al., 2015; Brekke, 2014; Campbell, 2015). It is well documented that completing upper secondary school decreases the risk of several negative outcomes, such as unemployment, including when parents' education is taken into account (Bjerk, 2012; Falch et al., 2010). Nevertheless, the content of education at the upper secondary school level varies considerably, both in terms of skills content and labour market esteem. An important distinction is between vocational education, which prepares students for the labour market, and general (also referred to as "academic" education), which prepares students for studies at a university or college. The penalties and rewards of vocational education versus general education have been studied by several scholars, with the transition from school to work drawing particular attention. For example, Müller and Shavit (1998) found that in almost all

[2] Upper secondary education refers to "upper secondary or post-secondary nontertiary education" and, in other words, to ISCED levels 3 and 4. In addition, below upper-secondary education includes ISCED levels 0 to 2, and tertiary education includes ISCED levels 5 to 8. (Source: E-mail from Lou Turroques, OECD consultant, March 24th 2022.)

countries, vocational education lowered the risk of unemployment more than general education. Dieckhoff (2008) showed that in the collective skill regimes of Germany and Denmark, where employers are highly involved in vocational skill formation, vocational training has very positive effects on labour market attainment. In contrast, in the United Kingdom's liberal skills system, the return to vocational training is less evident. The collective training system making the school-to-work transition easier has also been demonstrated by other scholars (Allmendinger, 1989; Busemeyer & Trampusch, 2012; Müller & Gangl, 2003; Iannelli & Raffe, 2006).

In Norway, the system for vocational education and training (VET) has high esteem in parts of working life, providing smooth transitions from school to work for workers such as electricians, car mechanics, plumbers, hairdressers, childcare workers, health workers and carpenters. The collective partners take an active part in vocational skills formation through apprenticeship training, and the state contributes with extensive financial support to the training companies. This system can be characterised as a stately governed collective system (Thelen, 2004). Many adults in Norway (6000-7000 annually) obtain their trade certificate based on work experience, which is made possible through a specific Norwegian scheme called the practice candidate scheme. Scholars have demonstrated that the opportunity to obtain formal vocational skills as an adult can have positive individual labour market effects, including for workers who did not already complete upper secondary school. This opportunity can contribute to social equalisation because it sustains people who did not complete upper secondary school when they were young. Workers who obtain formal vocational skills this way, have a social background similar to that of people who never complete upper secondary education. Two of the three practice candidates completed upper secondary education for the first time when they passed the test and received a trade certificate (Bratsberg et al., 2017).

Nevertheless, vocational education that is characterised by relatively little employer involvement and earns less esteem in the labour market, for instance, the sales trade, generally offers fewer possibilities in terms of job opportunities and job quality (see, e.g. Reegard, 2016). In other words, speaking of the benefits of "vocational educational" in general terms is not always meaningful – some tracks may lead to beneficial labour market positions, while others may represent fewer opportunities.

Scholars have also studied the role of vocational skills over the life course. For example, a study by Korpi et al. (2003) showed that in Sweden, the Netherlands and Great Britain, the impact of vocational training on labour market precariousness changes over the course of an individual's working life. They argued that the skills acquired during vocational training may serve as a comparative advantage in the competition for jobs, as finding the person with the right skills for the job will lower training costs (Korpi et al., 2003). However, this only applies to jobs that require skills acquired through training. When it comes to other jobs, applicants with a vocational degree may be perceived as lacking the general learning skills often associated with nonvocational training (Korpi et al., 2003, p. 19). A study by Hanushek et al. (2011) also demonstrated that individuals with general education initially face worse employment outcomes but experience improved employment probability as they become older relative to individuals with vocational education. The pattern is most pronounced in the apprenticeship countries of Denmark, Germany and Switzerland (Hanushek et al., 2011, p. 4).

While the conditions people meet when they are, in fact, employed are not necessarily covered by scholars focusing on the transition to work, studies on job quality have always been a central concern for sociologists of work (Adamson & Roper, 2019). As stated by Adamson & Roper, (2019, p. 551–552), this topic has even been growing in interest during the past decade, as the economic downturn and the establishment of the platform economy have called for a focus on decent work and an inclusive labour market, both politically (stressed by the International Labour Organization and the European Union [EU], among others) and among scholars. One important concern among sociologists has been to study the distinction between "good jobs" and "bad jobs" critically (Adamson & Roper, 2019, p. 551–552). An important issue here is the relationship between the "objective" and "subjective" characteristics of good and bad work (Kalleberg, 2011, as cited in Adamson & Roper, 2019, p. 552). Even if formal education has not been the main focus of these studies, "skills" as a concept is a recurrent topic, as bad jobs are often characterised as low-skilled, a term particularly used in an American and British context (see, for instance, Pandeli et al., 2019). For many sociologists of work, Braverman's (1974) postulation of the deskilling of labour might be the first reference that comes to mind.

In the next chapter, I move on to present the theoretical and conceptual framework pertaining to job quality, skills and institutions.

3. Theoretical and conceptual framework

This thesis has three cornerstones: job quality, skills and institutions. For a sociologist, the intersection between education and working life offers several possible theoretical perspectives. Both working life and education are concepts that can be studied from many different angles; thus, many different theories could be said to be relevant to my topic. In the articles, however, I have drawn on the theoretical framework that I have found most pertinent to the article-specific topic at hand. Although the topic of this thesis is at the intersection between education and working life, it has a clear inclination towards the latter. The articles draw on employment regime theory, skills formation theory and theories on skills and education that are tightly connected to working life. Not all of these frameworks are represented in each article. Throughout this chapter, as well as in Chapter 5, I will clarify how the different theories are connected to the articles.

In the following section, I first provide an outline of the two aspects to job quality which are highlighted in this thesis: job autonomy and job learning. In Section 3.2, I present sociological perspectives on skills and the relationship between skills (formal and informal) and job quality. In this section, I also discuss how these different epistemological perspectives relate to my own research. In the final section, I provide a brief account of institutional theories pertaining to employment regimes and skill formation.

3.1 Job quality as job autonomy and job learning

According to Adamson and Roper (2019), sociologists generally view quality of work as a complex issue. Job quality includes issues more than just being well paid or low paid, which might be a more common scale among economists, and it is more than the individual's own perception, which is a more individualistic view common within psychology (Adamson & Roper, 2019). Wages, job-related training, task discretion, work–life balance, and job security are aspects that, in different ways, constitute job quality (Gallie 2007a; Gallie 2007c). Job autonomy is an aspect of job quality that has a great influence on people's quality of life. This is stressed by many scholars within the social sciences (see, e.g. Edlund & Grönlund, 2010; Gallie, 2003, 2011; Kalleberg et al., 2009; Laaser & Karlsson, 2021; Lloyd & Payne, 2016; Vidal, 2013) as well as human resource research (see, e.g. Grugulis, 2007) and organisational psychology (see, e.g. Clausen et al., 2021).

Furthermore, job autonomy is crucial for workers to implement skills acquired though job learning (Grugulis, 2007). This latter aspect is discussed in particular in article 3 of this thesis.

In research on job quality and working conditions, the terms "task discretion" and "autonomy", or even "job control", are often used to describe the same phenomenon (see, e.g. Dobbin & Boychuk, 1999; Gallie, 2011; Lloyd & Payne, 2016, p. 40; Pullman & Jongbloed, 2019; Wicht et al., 2019). In this thesis, I have chosen the term "job autonomy". This is because the word "discretion" actually translates to the Norwegian word "skjønn", whose meaning is more demarcated than the English term. "Skjønn" can be understood as a worker's practice of judgment in a very specific sense, which is essential in Lipsky's (1980) theory of street-level bureaucracy. This particular aspect of discretion, however, is not the main topic of the articles in this thesis, although the scope of exercising task discretion is an important element of job autonomy. In this introduction, as well as in the articles, I use the term "job autonomy" (in Norwegian, "jobbautonomi") in a way that overlaps with the English term "discretion". Felstead et al. (2009) stated that there are many different dimensions of discretion. In my use of the term, I generally refer to a worker's general scope to decide how to do the job – what Felstead et al. (2009, p. 24) term "discretion in work execution". In their recent proposition of a sociological typology of meaningful work, Laaser and Karlsson (2021) refer to this as an example of "objective" autonomy.[3] In the first two articles of this thesis, operationalisation (and definition) is somewhat at the mercy of the background questionnaire in the PIAAC survey,[4] where three questions together capture the workers' abilities to decide how to work and decide the sequence of the tasks and the speed of work. Thus, other aspects were not captured by the dependent variable in the first two articles. Nevertheless, throughout this thesis, I also refer to job autonomy in a broader sense, such as the worker's general influence on relevant decision-making processes (see also Felstead et al., 2009; Kalleberg et al., 2009; Lloyd & Payne, 2016, p. 40).

Evident in the political discourse, as well as in the research literature (Gallie 2011), is that another important aspect of job quality is the scope to develop one's skills and to learn on the job. What is

[3] Compared by the authors to "subjective" autonomy, defined as "is defined as informal worker relations and practices at work that are driven by bottom-up norms and values that aim to establish and defend a sphere of autonomy and independent meaning systems from the formal organization and its demands" (Laaser & Karlsson, 2021, p. 7).

[4] The PIAAC survey is sometimes referred to as the survey of adult skills. In this thesis, I use the term PIAAC for the sake of simplicity and consistency.

often termed "informal" learning – the learning that occurs as a part of the regular work – is of particular importance for workers without higher education because this group of workers often have few opportunities to participate in organised learning (see, e.g. Rubenson, 2009). The idea that learning is crucial for humans' well-being and quality of life is ancient. Aristotle (2016) claimed that all humans are, according to their nature, equipped with a desire to learn. The educational philosopher Hutchins (1968) stated that learning is a way to maintain humanity. This philosophical humanist perspective on learning thus champions learning for the sake of self-development – Hutchins (1968, p. 133) understood "lifelong learning" as a civic good and "humanization, not a means to national economic prosperity". Learning and education among adults can also be understood in a less individualistic way, where it is a means to participate in civic society, as in what Crowther and Martin (2010) describe as a "Habermasian" perspective, where adult learning is a matter of political partaking, or as in the "Gramscian" perspective, where adult learning is an important driver for social change. What characterises these views of learning is that they do not necessarily point to the importance of *learning at work.* In fact, it could be understood as a part of life outside of work, not unlike Adam Smith's understanding of the importance of education: when the work is becoming routinized and monotonous, it is crucial to give workers a chance to "rehumanise" through education (see Smith, [1776]/1993, as cited in Grugulis, 2007, p. 21).

Today, different stakeholders emphasise learning participation, especially learning at work. The change in perspective to the more political instrumentalist has been addressed by critical voices within the field of adult education. Criticism is, for instance, expressed by scholars like Rees (2010) and Rubenson (2008, 2012), who describe how the discourse on adult learning has changed during the past decades, and a process where the neoliberalism that dominated during the 1980s and 1990s contributed to the appropriation of adult learning from the hands of the United Nations Educational, Scientific and Cultural Organization (an organisation that championed adult learning as a civic good) to other transnational organisations with both a different agenda and a different level of expertise (Rees, 2010; Rubenson, 2008). Rees (2010, p. 259) understands the perspectives on learning that dominate the public discourse today as a result of a process in which the OECD and the World Bank contributed to the creation of an ideology that championed an individualised and instrumental approach to adult learning. This orientation is in sharp contrast to the perspective on adult learning as a means of civic contribution. The knowledge-based economy, characterised

by continuous innovation, new technologies and work methods, claims that individuals who form their human capital are flexible enough to meet shifting demands. Workers must compensate for what they may lack from their previous education (Rees, 2010, p. 260). It is worth noting that there is another side to the instrumentalist perspective on skills: the importance of education for the sake of social equity. Education as a means of social equity is a ground pillar in a universalistic welfare state (see e.g. Willemse & de Beer, 2012). This implies that education and learning are not merely seen as a means to self-development but rather as instruments to obtain other benefits, such as a liveable wage and favourable job conditions. The focus on the formalisation of skills deserves more attention in this respect. On the one hand, upskilling in the sense of formalising prior experience can be regarded as a typical example of an instrumentalist view on skills, where formal education is seen as human capital relating to economic growth. Scholars have been critical of basing formal skills, such as a trade certificate, on individual job experience and job tasks rather than on a broader vocational education (see, e.g. Winch 2011). One could argue, however, that due to the esteem of formal skills in the knowledge-based economy, the formalisation of skills can be of great importance to a worker's job security. In this way, the opportunity to formalise skills may also be regarded as a central element to job quality.

Although there has been a shift away from learning and education as an aspect of personal development or democratisation, learning is still important for the individual to experience a sense of fulfilment (e.g. Green, 2013, p. 123). Even if the industrialised world is generally characterised by continuous technological change, monotonous work that offers little learning still exists. Green (2013, p. 123) refers to "low-skilled" work and skills poverty when he describes unrewarding work that "lacks any meaning and sense of fulfilment". If we understand low-skilled work as generally low quality, it is tempting to jump to the conclusion that increasing the qualifications in a job will automatically increase its quality. Such a conclusion is not accepted within critical theories of skills (see Grugulis, 2007; Lloyd & Payne, 2016). The relationship between upskilling and job quality is discussed in detail in Article 3 of this thesis.

3.2 Sociological perspectives on skill and its relation to job quality

Attewell (1990) contrasts four different approaches to the concept of skill in sociology: the positivist view, the ethnomethodological view, the neo-Weberian view and the neo-Marxist view.

Although I came across Attewell's (1990) text after having either published or already started writing the articles, these conceptions are relevant not only to the thesis as a whole; in their own way, the four articles are tangent to these different schools. Attewell (1990) stated that within sociology, "opposed theories use very different notions of skill and are blind to their own preconceptions of it" (p. 422). I find this just as much true today as in 1990. A conception of skill is not limited to the mere semantic interpretation of the word – as Attewell's (1990) outline makes evident, the conception of skills must be understood in light of the epistemological perspective it stems from, and this again has broad implications on which research questions we form, what methodology we use and how we understand our findings in a broader sense. In the following, I will give an outline of how the four different views on skills and, by that, how different epistemological perspectives relate to my research.

Attewell (1990) understands the positivist school of skills to refer to "those who treat skill as an attribute that is amenable to quantitative measurement and believe that this attribute or quality has an objective character independent of the observer" (p. 423). The emphasis on measurement can result in either an operationalisation of skills that critics deem too narrow or an operationalisation that encapsules a wide range of varied tasks and skills that may be so abstract that they affect the validity and reliability of the research design (Attewell, 1990, p. 424). Attewell (1990) stated that within sociology, positivists tend to treat skill as an attribute of jobs rather than persons. Thus, the assessment of task complexity is a core element of such studies (Attewell, 1990, p. 426). Human capital theory may be seen as the most prominent positivist school of skills, where, as Attewell states, wages are seen as a function of years of education. However, there are several aspects that this view does not take into account, such as credentialism and occupational monopolies (Attewell, 1990, p. 425–426).

A positivistic conception of skills is practically determined to play some role in my research, as the research presented in article 1 and 2 of this thesis are based on analyses of data from the PIAAC survey. The PIAAC survey represents an archetypical positivist perspective on skills. This is evident in (at least) two ways. First, cognitive skills in PIAAC are seen as something that can be measured quantitatively and compared meaningfully across groups and countries. Skill levels can be aggregated to generate "hard" evidence of how a country measures compared to others. People attending PIAAC (or Program for International Student Assessment [PISA]) workshops may have

heard Andreas Schleicher, director of Education and Skills in the OECD, paraphrase the following quote from Edwards Deming: "Without data, you're just another person with an opinion." Second, the program is motivated by the positivist (human capital) idea that economic growth and national competitiveness are direct returns on individuals' measurable skills.

A number of scholars have attempted to isolate the effects of informal skills from education. A Norwegian study showed that cognitive skills (associated with intelligence and problem-solving ability), as well as noncognitive skills (measured by marks from more practical school subjects), have a direct effect on labour market attachment among upper secondary school graduates (Falch et al., 2014).[5] Cognitive skills have also been proven to affect labour market outcomes independently of education in an American context (e.g. Kerckhoff et al., 2001). Skill tests such as PISA proved to be better predictors of economic growth than educational attainment (Hanushek & Woessman, 2010). Comparative studies on the relationship between cognitive skills and occupational outcomes (especially wages) have, in recent years, been made possible by other large-scale international assessments conducted by the OECD, for example, the International Adult Literacy Survey (see, e.g. Bratsberg et al., 2013) and, most recently, the PIAAC survey. For instance, the relationship between education, cognitive skills and wages is assessed by Hanushek et al. (2015). Their country-level study demonstrated that better cognitive skills are related to higher employment probabilities and higher wages (Hanushek et al., 2015, p. 117–120).

Both the skill measure and the general motive of PIAAC (and the OECD) have been subject to critique (see, e.g. Valiente & Lee, 2020). During the first few years after the first PIAAC wave, little critical research that actually deployed PIAAC data existed – the PIAAC data appeared either in research reports generating results based on data-driven research questions or simply critique. Later on, more studies have been published that balance the opportunities and limitations of these survey data, for instance, demonstrated by a special issue in the journal Compare (Valiente & Lee, 2020). The analyses in both Article 1 and Article 2 of this thesis are based on the PIAAC survey, and the relationship between job autonomy and cognitive skills is analysed in the second article.

[5] That being said, another Norwegian study suggests that completing upper secondary school has an independent effect on the labour market prospects, indicating that the mere credentials of USS decrease risk of nonemployment (Falch et al., 2010).

For my own part, I have tried to take advantage of the qualities of these data while maintaining a critical relationship with them.

The second school of skills, ethnomethodology, offers a sharp contrast to the positivist view. Attewell (1990) describes the core of the ethnomethodologist perspective of skills as "the idea that *all* human activity, even the most mundane, is quite complex" (p. 429). In this view, activities commonly regarded as simple, such as walking or crossing the road, are, in fact, extremely complex. However, because of this complexity, humans cannot attend to them consciously. Attewell (1990) illustrates this with an example from Kusterer (1978): bank tellers who lose track of the counting only when they stop to think about it. Mundane activities are thus taken for granted, and they become socially invisible and so do the skills required to carry them out. Thus, an activity may seem unskilled when someone is able to do it well (Attewell, 1990, p. 430–431). Moreover, in the ethnomethodological view, activities often deemed routinised are not necessarily unskilled (as opposed to the neo-Marxist view, which I will address shortly). In fact, "one has mastered a skill or complex task when one has somaticized it; needing to think about it indicates incomplete training or knowledge" (Attewell, 1990, p. 431). According to this view of skills, it typically occurs that tasks that are unfamiliar to the observer are understood as complex, while tasks that the observer knows how to do are understood as relatively unskilled. A consequence of the ethnomethodological perspective on skill is that self-reports of skill will leave out many taken for granted – embodied skills – as those who possess them are not necessarily conscious of them. For the researcher, asking questions about "how" the activities are performed in deep detail will reveal the knowledge and skills that lie behind them (Attewell, 1990, p. 431).

In this thesis, Article 4 offers a different view of education, skills and competencies than in the first two articles. It has a qualitative design and is based on interviews with young workers who obtained formal qualifications within carpentry or child- and youth care through the experienced-based trade certificate programme, where workers can obtain vocational skills based on work experience. The link to the ethnomethodological school appears in two ways: First, the empirical material is lengthy interviews characterised by open-ended questions and thorough interrogations of the informants' activities and skill use. Second, parallel to the ethnomethodological perspective of skills, it is also relevant to our understanding of the practice-based trade certificate as a concept. When obtaining formal qualifications based on experience, an individual does not go from abstract

rules to internalised, or somaticised, skills but quite the opposite: skills that are somaticised and taken for granted by the individual are made conscious of them, as they acquire knowledge on vocational theory and "abstract rules". For the people we interviewed, this could lead to an awakening of their own skills and competencies.

Of the third perspective, Attewell (1990) uses the terms neo-Weberian and social constructionist interchangeably. This perspective is of clear relevance to Article 3, in which I discuss the process of introducing formal skills in an occupation characterised by poor working conditions and low skills. The social constructionist school of skill tries to understand why certain occupations are socially demarked as skilled and the processes by which some jobs obtain higher status than others (Attewell, 1990, p. 435). Weber and scholars inspired by him famously spoke about "social closure", where workers within an occupation obtain power by restricting entry into an occupation or profession and, by that, remove the occupation and its members from market competition (Attewell, 1990, p. 435). An important question – and source of debate – is whether the status of certain occupations is purely a matter of social construction and the rules of the labour market or whether occupations characterised by social closure in fact possess real skills or task complexity, although exaggerated to maintain their market power (Attewell, 1990, p. 437). Attewell (1990) refers here to Collins' (1976) understanding of the professions as a distinct type of occupation where the members could in fact have no skills at all but nevertheless enjoy high status. Collins (1979) also stated that educational attainment above lower secondary school (referred to as the elementary level) is not necessarily a good indicator of skills. He questions the view of education as something that equips students with the necessary skills for work and that skill is the main determinant of occupational success. In Collins' (1979) view, it is the credentials that matter. As Attewell (1990) states, this takes us far from the positivist view (p. 438).

In the fourth and final view, neo-Marxist, the relationship between skills and job quality is of particular importance. According to Gallie (2007c, p. 105–106), referring to Braverman (1974), the neo-Marxian sees individual control over the work task as an essential condition for self-realisation "since it provides the conditions for creativity and self-development". Attewell (1990) states that "many contemporary Marxists treat skill as a 'common sense' category which does not require explication, while other neo-Marxist treatment of skill frequently shade into either positivists or social constructionist thinking" (p. 439). Braverman's (1974) well-known thesis of

deskilling, both embraced and widely criticised (see Attewell, 1990, p. 441), is an example of the neo-Marxist school of skill. According to Attewell (1990), Braverman (1974) was critical of equating occupational classification with a given skill level, and he stated that educational attainment "tells one little about the skill demands of an incumbent's work" (p. 441). Braverman's (1974) view of skill emphasised the "craft mastery" (which comes close to the Norwegian word "fagarbeider", in my own interpretation), which, as Attewell (1990) argues, adds the important element of *control* to the conception of skill. Someone who is only performing the job as instructed and has neither the autonomy nor the skills to employ his or her own assessment is not skilled. The loss of skills *and* control is the step prior to the loss of freedom and alienation of labour (Attewell, 1990, p. 441–442).

Attewell (1990, p. 442–443) points out that within neo-Marxism, the relationship between skills and autonomy is, at times, taken too far when these aspects become logical equivalents. Thus, scholars representing the neo-Marxist do, to some extent, equate job quality, including job autonomy, with skills. Although this seems extreme, the relation between job autonomy and skills is less controversial among scholars, and it is well documented that deploying new skills requires a certain level of autonomy (see, e.g. Grugulis, 2003).

3.3 Institutional context and job quality

The relation between agents and structure is a pillar of sociology. How are agents' opportunities shaped by different contexts? In this thesis, I refer to middle-range perspectives on the institutional level in terms of state, the national welfare system and national educational system, as well as the institutions of working life – that is, workers' unions and employers' organisations. I draw attention to differences in welfare systems when it comes to job quality for workers without higher education. Moreover, I address the potential for job quality that lies in both the national system for VET and tripartite coordination. The first two articles in this thesis are based on cross-country comparisons in which differences in welfare systems and skill formation systems were important in our decision on which countries to include in the studies. The first article draws on employment regime theory and its emphasis on power resources, (Gallie, 2007b, 2011). While informed by employment regime theory, the second article also address differences in the national vocational training system. Theoretical assumptions about the relationship between job autonomy and the

vocational training system motivated the selection of the countries in this study. In the following paragraph, I give a brief outline and discussion of the conceptual frameworks.

Similar to other scholars within political economy (see, for instance, Esping-Andersen, 1990; Korpi, 2006; Streeck, 1992), Gallie (2011) put emphasis on employees' power resources and their relation to job control and organisational involvement (Gallie, 2011; Gallie & Zhou, 2021, p. 35–36). He has drawn particular attention to the relationship between the role of labour unions and job autonomy (or task discretion) (Gallie, 2007a, 2007b, 2011). Gallie (2007c) distinguishes between institutional features that might affect the general level of job autonomy and features that might affect the extent of similarity or divergence of trends between different categories of the workforce. Regarding average job autonomy, the emphasis is on two factors: union workplace strength and national policies for working-life reform. Factors pertaining to polarisation in job autonomy are the structure of collective bargaining, the systems of skill formation and employment regulation. Central here is the distinction between social-democratic systems, also referred to as inclusive employment systems, the dualist employment systems and the liberal, or "market based" systems (Gallie 2007b). Of particular importance in the social-democratic systems, is the role of organised labour in employment policy and regulation. In the liberal marked systems, typically represented by Britain, reliance is put on the market's capacity to secure high employment levels, and minimal employment regulation. In the dualist system, represented by for instance Germany, strong rights are guaranteed to a core workforce, at the expense of poorer conditions for others (Gallie 2007b, p. 17).

Several studies (e.g. Dobbin & Boychuk 1999; Gallie 2003; Gallie 2007c) have demonstrated that there is little doubt that there are differences at the country level in terms of the (average) level of job quality in general and job autonomy in particular. Previous research has demonstrated consistent evidence of higher job autonomy in Scandinavia. For example, Dobbin and Boychuk (1999) found that workers in the Nordic countries experienced higher levels of autonomy than those in the United States, Canada and Australia. Using survey data from 1995 and 2000, Gallie (2007c) demonstrated how the proportion of workers who report that they have a significant influence on how to do their job varied between countries in the EU, with Denmark, Sweden and the Netherlands ranging on top; Greece, Spain, Portugal and Ireland at the bottom; and Germany, Italy, Austria, France, Belgium, Finland and Great Britain in the middle, with Germany and Austria

scoring below Great Britain (Gallie 2007c, p. 114). Survey data also suggest that Sweden (1976-2002 data) has provided strong protection against job autonomy polarisation between industry sectors and skill groups, while in Germany (1979–1998 data) and Great Britain (1992-2001 data), survey data demonstrate a clear trend towards polarisation across time (Gallie, 2007c, p. 130–133). A relatively high level of job autonomy in Scandinavia is also demonstrated by Pullman and Jongbloed (2019), who also studied the relationship between formal education and job autonomy and found that the disadvantage of low education is relatively small in Scandinavia.

During the past decade, several studies have demonstrated the role of unions in making bad jobs better (Adamson & Roper, 2019, p. 554). Although the argument that union density relates to job autonomy is convincing and also supported by other previous studies (e.g. Edlund & Grönlund, 2010), the research evidence is not entirely unambiguous. Gallie (2007a, p. 95) points out that union density varies sharply between Scandinavia and Germany and considers this an important explanation for why job autonomy is lower in the latter country. However, despite the high levels of job autonomy demonstrated by Gallie (2007c, p.114), the Netherlands has a relatively low union density (Løken et al., 2013). It should also be noted that union density varies within the Scandinavian countries, with around 55% in Norway and around 70% in Sweden and Denmark (Løken et al., 2013).

Regarding the system of skill formation, and of particular relevance to Article 2 in this thesis, Gallie (2007c, p. 108–111) points to the difference between countries with general skill formation systems and countries characterised by more occupation- or industry-specific skill systems. In occupation-specific systems, "jobs tend to be designed around the externally derived skills of employees, rather than around an internal organizational logic" (Marsden, 1999, as cited in Gallie 2007c, p. 110). Furthermore, this is reinforced by the fact that specific skill formation systems tend to socialise employees into a strong sense of occupational identity (Lane, 1987, as cited in Gallie, 2007c, p. 110).

The importance of national vocational training systems for labour market outcomes is a topic addressed by scholars within a number of different theoretical branches: sociological stratification theory (Allmendinger, 1989; Müller & Shavit, 1998), comparative political economy (Busemeyer, 2015; Hall & Soskice, 2001), collective skill formation theory (Busemeyer & Trampusch, 2012) and scholars drawing on labour process theory (e.g. Grugulis & Lloyd, 2010). Studies within the

field of VET have also been concerned with the relationship between the organisation of vocational training and job autonomy (e.g. Clarke, 2011). Importantly in the understanding of the relationship between job autonomy and the vocational system is the content of the training, the degree of state commitment and the degree of employers' commitment. Moreover, an essential argument among scholars is the distinction between *broad* and *narrow* skills. The British system is generally depicted as a case where narrow skills combined with a liberal welfare system, low job protection and generally low union density is a cocktail that depresses the job autonomy among "undergraduate" workers (see, e.g. Clarke, 2011; Lloyd & Payne, 2016).

It is important to be aware that despite the recognition of the categorisation of VET systems defined by e.g. Busemeyer and Trampusch (2012), clear typologies of VET systems are somewhat difficult to establish (Green, 2013, p. 154). For instance, a collective system like the Austrian system is typically referred to as a "dual" or apprentice-based system. Nevertheless, in an expert survey performed by Schlich-Schmälzle and Busemeyer (2013), the majority of experts in Austria perceived its system as having no dominating VET model. Furthermore, three UK experts stated that the standardisation of UK VET was high, while three other experts stated that the content of VET differs largely across learning contexts (Schlicht-Schmälzle & Busemeyer, 2013). However, despite their imperfections, system typologies may still provide an important understanding of the differences and similarities across countries.

Overall, several institutional factors contribute to the differences between countries when it comes to job quality. Features typical of Scandinavian countries are that a generous welfare state is combined with a working life characterised by cooperation between the state, employer organisations and unions. Scandinavian countries (especially Sweden and Denmark) are also characterised by relatively strong trade union membership, which enhances unions' ability to influence workers' involvement in the workplace or political influence at the national level. The compressed wage structure in Norway and Sweden in particular is seen as promoting both high skills and high job autonomy (Barth et al., 2014). However, their vocational systems are quite different, with a high degree of state involvement in Sweden and little firm-based training and a very high degree of employers' commitment in Denmark.

4. Data and methodology

My research project has been part of an overarching project called *Adult Learning, Vocational Skills and Labour Market Outcomes,* funded by the Norwegian Research Council through the FINNUT program. The main project is a collaboration between the research institutes Fafo and the Frisch Centre. The Norwegian Research Council encouraged the use of PIAAC data for research projects funded through the FINNUT program, and the project outline of the main project entailed the use of this survey. The main project was nevertheless built largely on a mixed methods approach combining qualitative interviews with analyses of register data, while the use of PIAAC data was confined to this thesis. One of the articles in this thesis, however, is based on qualitative data collected through the main project. Thus, being part of a larger project made a mixed-methods approach more feasible, as it would have been difficult for one sole researcher to both analyse complex survey data and conduct 35 in-depth interviews in different parts of the country within the timeframe of a PhD period. In the following section, I will describe the data, methodology and design.

4.1 Data

4.1.1 Quantitative data: the PIAAC survey

The PIAAC survey provides cross-sectional data covering a representative sample of the adult population (16–65) in 40 OECD countries, with approximately 5,000 participants in each country. The first round was conducted as a household survey in 2011–2012. The data include three measures of cognitive skills, as well as background variables pertaining to labour market situation, wages, education, learning participation and social background. The data were collected as in-person interviews, including both background questionnaires and direct skills assessments (literacy, numeracy and problem-solving skills in technology-rich environments). Direct assessments of literacy and numeracy were available in both paper- and computer-based formats. The data are harmonised to be secure and internationally valid and designed for countries to be able to administer the survey in their own national languages. The batteries measuring cognitive skills are designed to provide international benchmarking regarding adult skills.[6] The PIAAC data

[6] The technical report provides further details (OECD, 2014).

include sampling weights, accounting for differential sampling rates, differential response rates and under coverage. The weights ensure that the estimates represent each country's target population and reduce nonresponse bias. The data also include replicate weights, which capture variations due to sample design and selection, as well as weighting adjustments. These replicate weights also account for measurement errors through the processing of plausible values (OECD, 2014, p. 189) (described under "cognitive skills in PIAAC" later in this section).

I did all the recoding of the background variables in Stata 14.

Both of the quantitative articles are based on a restricted survey sample and only include a selection of countries. Article 1 includes Norway, Sweden and Denmark to the United Kingdom (only England and Northern Ireland participated in PIAAC) and Ireland. Article 2 includes seven countries: Norway, Sweden, Denmark, the United Kingdom, Ireland, Germany and Austria. In these articles, only people who report work as their main activity are included in the analyses, and people with self-employment were excluded. The first article includes workers from the age of 30–65. The lower age threshold was chosen due to the high average age of completion of higher education in Scandinavia, as this education group served as the reference group in the analyses. The upper age threshold was chosen to diminish any bias of variation in early retirement in the five countries. The age group in the second article is more restricted. As decades pass by, national VET systems generally undergo some structural changes. To minimise variation, we restricted our sample to the ages of 30–54.

Operationalisation of job autonomy and job learning in quantitative analyses

The quantitative analyses in this thesis are based on self-reported assessments to measure job autonomy: to what extent the respondents can decide how to do the job, the sequence of tasks and the speed of work. As described in Articles 1 and 2, answers were given on a scale of 1–5 as (1) 'Not at all', (2) 'Very little', (3) 'To some extent', (4) 'To a high extent' and (5) 'To a very high extent'.

The operationalisation calls for some critical reflections: What do these questions capture? The individual's inner processes deciding what to respond could be very similar across educational groups, occupations and even countries, but they could also be dissimilar. Subjective perceptions

of job autonomy will most likely be influenced by individual reference groups. Consider this example: A physician employed by the municipality may look to her university classmate working in the private sector and feel like she has little influence on how to do her job in comparison. In the absolute sense, she could still be more autonomous than the person cleaning her office, but due to differences in the reference group, they may still end up with alternative 2) (very little). Another example that might represent a validity problem is the way someone on piecework may interpret questions of autonomy – one may decide to work slower if one wants to, but that would mean lower pay. When exercising one's alleged autonomy represents an economic penalty, talking about job autonomy seems absurd – freedom is certainly not to have everything to lose. On that note, the decision to exclude freelance workers is worth discussing on its own. In both Articles 1 and 2, people in self-employment are excluded from the analyses on the assumption that these workers does not represent standard employment. It is also assumed that freelance workers experience more job autonomy simply due to the nature of freelance work. The shift in work organisation due to the growth of the platform economy may challenge such an assumption (see, e.g. Wood et al. [2018] on the gig economy and autonomy and control). This may not present a validity problem with survey data from 2011–2012, when the platform economy was still limited in size. This is, however, something that should be considered in the future.

The operationalisation of job autonomy in Articles 1 and 2 is similar to that used in other studies measuring job autonomy based on PIAAC (Pullman & Jongbloed, 2019; Wicht et al., 2019). The possible answers, however, are somewhat dissimilar to other measures of job autonomy or task discretion used in large-scale surveys. In the European Foundation's European Surveys on Working Conditions (1995 and 2000), presented by Gallie (2007c), only two answers were possible: "Are you able, or not, to choose or change 1) your order of tasks, 2) your methods of work and 3) your speed or rate of work" (p. 113). It is important to be aware that this difference in answer options may lead to different results regarding overall job autonomy across countries, as well as between groups.

The operationalisation of job learning in Article 1 is based on self-reported informal learning. Although there are several questions pertaining to organised learning participation in PIAAC, the analyses of job learning in Article 1 are confined to informal learning that happens through everyday work. As stated in Article 1, previous research has demonstrated that workers without

higher education participate less in organised learning than workers with university or college education (see e.g. Rubenson 2009). By confining the conception of learning with informal learning, we avoid the risk of concluding that low participation in formal or organised nonformal learning, such as course participation, equates to a learning-deprived job. As also explained in Article 1, the dependent variable 'Job learning' was derived from a factor analysis of the following questions: (i) 'How often do you learn from your co-workers or supervisors?' and (ii) 'How often do you learn something useful to your work through learning-by-doing?'. Answers were given on a scale of 1–5 as (1) 'Never', (2) 'Less than once a month', (3) 'Less than once a week but at least once a month', (4) 'At least once a week but not every day' and (5) 'Every day'.

Operationalisation of educational level

In PIAAC, self-reported educational level is registered as a detailed background variable and is matched with the International Standard Classification of Education (ISCED 97). This coding scheme differentiates educational programs at the upper secondary level, not allowing access to tertiary education (ISCED 3C, usually vocationally oriented), from programs giving such access (ISCED 3A-B, which may be generally or vocationally oriented). Compared to other surveys, this is a relatively detailed coding scheme (Schneider, 2018, p. 157). Respondents at ISCED levels 3 A-B, 4 A-B and 5 were asked whether their highest educational level was "vocationally oriented" (yes/no/not relevant). The operationalisation of educational level in Articles 1 and 2 is based on information from these variables. The question of whether the education was vocationally oriented was of particular importance in the German and Austrian data, where ISCED 3C was not an alternative in the background data and where the "vocational or not" question was the only strategy to establish vocational orientation. Table 4.1 provides an overview of the operationalisation in each article. Note that the letter "C" generally denotes a vocationally oriented education.

Table 4.1

	Article 1		Article 2
Lower secondary school	ISCED level 1, 2 or 3, short (less than two years)		
Upper secondary school	ISCED level 3 (A, B or C)	*Upper secondary school, general*	ISCED level 3 (A, B – non-vocational)
		Upper secondary school, vocational	ISCED level 3 (A, B vocational, or C)
Higher education	ISCED level 4C, 5A-C, 6	*Continuing vocational education*	ISCED level 4C, 5B
		Higher education	ISCED level 5A, 6

Schneider (2010) states that ISCED 4C and 5B are often interchangeable across countries. For the purposes of the analyses in Article 1, these levels are included with ISCED 5A and above in this article. In Article 2, where we focus on vocational education, these levels form an exclusive group, termed "continuing vocational education".

The comparison of education across countries is further discussed in the methodology Section 4.2.

Cognitive skills in PIAAC

The cognitive skills in PIAAC are based on a battery of tests pertaining to numeracy, literacy and problem-solving skills in "technology-rich" environments. Proficiency scores are based on various tasks in which no respondent goes through the total test battery. Instead, each respondent is assigned 10 plausible values for each of the three skills. Problem-solving skills in a technology-rich environment only cover respondents who filled out the survey on a computer rather than on paper. This means that in PIAAC, problem-solving skills are very likely to be correlated with computer experience, which could again be related to job experience and job quality. Due to this causality dilemma, problem-solving skills are not included in the analyses in Article 2. Numeracy and literacy skills are highly correlated, which makes it difficult to isolate their respective impacts

in the same model. Following other scholars working with the same data, numeracy scores are used as a proxy for cognitive skills (e.g. Heisig & Solga, 2015).

Similar to formal skills and skills in general, the operationalisation of cognitive skills can be problematic. There are clear weaknesses in the use of numeracy (and literacy) scores as a measure of cognitive skills. Kerckhoff et al. (2001, p. 2) state that many kinds of skills are relevant to success in the workplace, such as specific technical skills and personal qualities. Neither cognitive skills in general nor numeracy scores specifically can be understood as complete proxies of what constitutes individual competencies and skills. Furthermore, noncognitive characteristics, such as risk aversion, self-esteem and self-control, have direct effects on labour market outcomes (Heckman & Rubinstein, 2001). With these implications considered, the measures of cognitive skills in PIAAC can still function as alternative measures to formal education.

4.1.2 Qualitative data

Sample and data collection

Article 4 is based on 34 qualitative interviews with people who acquired formal VET qualifications (trade or journeyman's certificate) as adults. Two vocational trades were selected for the comparison: 1) carpentry, a male-dominated occupation mainly in the private sector (19 people), and 2) childcare and youth work, a female-dominated occupation in which most workers are employed by municipalities and work in kindergartens, schools or supervised after-school activities (16 people). As also described in Article 4, the purpose of concentrating on only two occupations was to investigate individual trajectories within similar institutional contexts. The two trades have similar characteristics in two ways: they are large in terms of the number of trade certificates completed annually, and they are in demand on the labour market. Data sample consisted of people living in two different geographical regions in Norway: 1) a big city in the East, characterised by a relatively large share of immigrants and, on average, a high educational level, and 2) a medium-sized city in the West, where vocational studies (especially technical studies) are in relatively high regard.

We obtained contact information through the county administrations where trade exams are registered. They were asked to contact participants matching the following criteria: 1) they either obtained their formal qualifications as adult apprentices or through the experience-based trade

certificate scheme, which allows workers to formalise their competencies by passing a theoretical and practical exam, 2) they were between the ages of 25 and 35 when they acquired their formal VET qualification and 3) they had acquired this qualification within the last two years. Only upon consent from the participants would the county administration share their contact information with us. We then contacted the participants by e-mail, where we included information about the project.

The interviews were conducted between 2014 and 2015. Two of these interviews were conducted as face-to-face interviews by me alone, one interview was a joint face-to-face interview with me and one of the other researchers on the project and the rest of the interviews were conducted by other fellow project researchers. In total, twenty-nine of the interviews were conducted as face-to-face interviews, while five were conducted by telephone. The location of the interviews were decided upon by the participants themselves. Some interviews were conducted at the person's own workplace, e.g. inside a house being built by one of the carpenters, at a café or in people's own home (upon invitation by the participant). The telephone interviews lasted approximately one hour. The duration of the face-to-face interviews varied from about one hour to one and a half hours. When comparing these two interview types it is evident that the face-to-face interviews provided both thicker descriptions and a better conversation flow. The telephone-interviews followed the interview guide more strictly than the face-to-face interviews and provided less contextual insight. The choice of conducting five of the interviews by telephone was, however, a pragmatic solution when a face-to-face interview proved difficult to arrange without inflicting too much inconvenience on the participant.

4.2 Methodology

I applied a mixed-methods design in this thesis. This has primarily been motivated by the understanding that different research questions call for different methodological approaches. The quantitative data are useful for providing an image of overarching differences (and similarities) across countries. Qualitative data can give us insight into social interactions at the micro level and are useful when it comes to answering questions about why people act the way they do. Qualitative interviews can provide thick descriptions of, for instance, how individual opportunities and motivations are mediated by the institutional context (Kelle, 2005).

4.2.1 Analysing PIAAC data

As mentioned earlier, the PIAAC study is based on a complex sample design. Jakubowski and Pokropek (2019) (among other statisticians) state that, for researchers, this has (at least) two implications. First, all point estimates must be computed using sampling weights. Second, it is necessary to use special procedures for standard error computations. Plausible value methodology makes the computations of the analyses more complex. The complex sample design in the PIAAC study implies that all point estimates must be computed using sampling weights.[7] Because the skills scores are measured as 10 plausible values, measurement error for cognitive data must be taken into account, in addition to the implications of the sampling design (Jakubowski & Pokropek, 2019). In the quantitative articles, I apply the user-written command "repest"[8] in Stata, which automatically performs analyses with weights, takes the plausible values into account and produces adjusted R2 as the indicator for predictive power (von Davier et al., 2009, p. 23).

4.2.2 Comparing educational levels across states

In the two quantitative articles, I have chosen to conduct a case-based comparison of the countries included. One might argue that the multilevel approach would have been a more suitable approach when studying the relationship between job autonomy and features of the national vocational system, similar to what we do in Article 2 – especially when having access to survey data on such a multitude of countries. Multilevel analyses with educational features as level 2 variables have been conducted by other scholars (e.g. Bol & van der Werfhorst, 2013; Heisig & Solga, 2015). However, when it comes to the national system of vocational education, it is difficult to gather reliable information about the VET system in a number of countries that is sufficient to conduct multilevel analyses. The OECD provides some information, but for many countries, data indicating employer involvement and the extent of apprenticeship training are missing or inadequate. The issue of imprecise variables pertaining to vocational systems was also discussed by Busemeyer (2015, p. 124–128).

Comparing educational groups across countries in general and different age groups within countries, Fuery (2021) demonstrated how heterogeneity within educational groups affects

[7] There are 80 replicate weights in PIAAC.
[8] Written by Francesco Avvisati and Francois Keslair.

statistical results. She argues that although no classification system perfectly accounts for the full variation of the population, "measuring and operationalizing complex social phenomena is at the core of much sociological research." (Furey 2021, p.1009). Therefore, researchers must carefully define key variables and comparison groups, and use theoretical and empirical guidance to motivate why specific categories or classification systems may be more or less appropriate in empirical studies, "especially when considering relative effects" (Fuery, 2021, p.1009). This pertinent argument is of particular relevance to Article 1, in which the reference group is very heterogeneous, as it consists of both postsecondary educated people and those who have completed college or university at various levels.

Schneider (2018) discussed the dilemmas of harmonising and comparing educational levels across countries. Based on an analysis of the validity of the comparative education variable in PIAAC, she states that the detailed variable in PIAAC works well as a harmonised education measure, and that it "well reflects quantity and partially also quality of education", although the vocational component should have been more detailed, for instance, whether the education is based on apprenticeship training (Schneider, 2018, p. 171). Similar to Fuery (2021), Schneider (2018, p. 172) underlines the need for theoretical considerations when comparing educational groups across countries and urges researchers to accompany the aggregation of educational groups with sensitivity checks. In Article 1, sensitivity checks demonstrated that analyses in which ISCED 4C and ISCED 5B were excluded from the reference category of higher education yielded approximately similar results.

4.2.3 Qualitative data interviewing and analysis

The aim of the interviews was to investigate the personal trajectories of people who obtain formal VET qualifications as young adults. The interview guide (available in appendix 2) entailed a set of background questions, questions pertaining to previous schooling and questions that called for reflection on the participants' relationship with formal education, learning and work. The interviews were semi-structured, and we encouraged the participants to speak freely, following up on subjects that occurred along the way. Like we state in Article 4, mapping trajectories and decision-making processes is about finding reasons: Why did they get their trade certificates as adults and not as young students? Both before and during our fieldwork, we discussed how we

could get insight into these trajectories and "reasons" without making the participants feel as if they were put on the spot. For this purpose, we wanted to be careful with asking too many "why" questions. "Why" questions also tend to infer a cause–effect relationship that may not exist (McNamara, 2009). Such reflections within the research group were valuable in our field work, and above all, made me aware of the importance of interview technique while conducting qualitative research.

In the analyses of the interview material, as described in Article 4, each participant was treated as a specific case, and each transcription was read thoroughly before being organised according to the interview guide's main categories: family background, educational experience, transitions from school to work and decision-making processes related to attaining the trade certificate. The case material was then comprised and systemised within each of these categories. As this data material was used in a co-authored article, the analyses were conducted in collaboration with the co-author. This made it possible to discuss the findings and interpretations as we went along with the analyses, which strengthened the quality of the analyses. As my co-author had conducted the majority of the other interviews, working together on the analyses ensured additional information on the context around the interviews, as my co-author would provide background information on the interviewees not included in the actual interviews. This made the transcriptions seem more "vivid" to me than had they merely been transcripts on paper, without any information on context.

4.2.4 Some reflections on Article 3

The fourth article is not based on new empirical data but is a theoretical and policy-oriented discussion based on previous empirical research. Thus, no traditional methodology was used in the work with this article, but an outline of how the writing of this article came at hand, how the idea was formed and how I analysed the empirical research it is based on is still relevant. The research topic was shaped in a somewhat presumptuous manner, where I had an a priori idea that the introduction of the trade certificate was a manifestation of a general discomfort with menial, low-skilled labour in a society (the Norwegian) where egalitarianism is an important part of the self-image. I was thus familiar with the introduction of the trade certificate in the cleaning industry, but I did not know the story – which stakeholders were involved and what the main motivation was. The article idea continued to form as I participated in a theoretical PhD course called

"Educational Transfer" in 2017, where I became familiar with the theoretical framework with the same name. Wanting to write an article in which I discussed the concepts of skills formalisation, upskilling and job quality in a more critical way, Skilbrei's (2003) dissertation constituted my main material, which I had heard of but did not know the content of. I read it with a specific focus on the aspects of education and job quality. To my surprise and joy, I found that many of Skilbrei's (2003) interpretations were tangent to my own ideas on upskilling. I then started to collect research conducted during the years after 2003 to make my contribution clearer. I collected empirical research on the cleaning industry in Norway, focusing on both the introduction of the trade certificate and the institutional changes the industry had undergone.

4.2.5 Ethical considerations

The PIAAC survey has been conducted by national research organisations within each of the participating countries. The ethical standards and guidelines pertaining to the PIAAC study are described in detail in the PIAAC technical report provided by the OECD (OECD 2014). The OECD-report states that each research organisation has had the responsibility to survey participants, clients, data collectors and the public to follow ethical principles and practices in the conduct of their work. This includes standards on rigorous research, the protection of human rights, confidentiality and the documentation of consent and confidentiality protocols (2014:11-14).

The research group on the project *Adult Learning, Vocational Skills and Labour Market Outcomes* gained ethical approval for conducting the qualitative interviews from the Norwegian Centre for Research Data (NSD). The participants gave their consent to be contacted by the researchers to the county administration. The informants received written information about the purpose of the study and measures to ensure confidentiality. This included information about Fafo's system for the secure storage of data. All the participants freely agreed to participate, and no incentives were given. We also informed the participants of their right to withdraw from the interview at any time, including after completion. All interviews were recorded with the consent of the interviewees. The names used in Article 4 are fictitious.

5. Summaries of the articles

The four articles in this thesis address job quality among workers without higher education in Norway in contrast to other Western European countries and other education groups. As demonstrated in table 1 in Chapter 1, the relationship between formal education and job quality is explored in Articles 1 and 2. These articles have a quantitative design based on data from the Programme for the International Assessment of Adult Competencies (PIAAC). In Article 3, I discuss the complexity of reasons and motivations that underlie formal upskilling at the institutional level. Article 4 has a qualitative design and is based on interviews with young workers who obtained formal qualifications within carpentry or child- and youth care through a specific Norwegian education scheme called the experienced-based trade certificate programme, where workers can obtain vocational skills based on work experience.

5.1 Article I: Low education, high job quality? Job autonomy and learning among workers without higher education in Scandinavia, the United Kingdom and Ireland

Aspøy, T. M. (2019). Low education, high job quality? Job autonomy and learning among workers without higher education in Scandinavia, the United Kingdom and Ireland, *European Societies, 2*(22).

Among the four articles in this thesis, the first is the one that explores the overarching research questions most directly. Here, I study job quality among workers without higher education in five different countries, which are characterised by two different political systems: the social democratic and the liberal. I analyse differences in both job autonomy and informal on-the-job learning, simply termed "job learning" in the article.

The article idea was motivated by previous comparative quantitative studies of job autonomy and learning opportunities, which found that workers in Scandinavian countries experienced better conditions than their counterparts in other Western countries. Nevertheless, qualitative studies have challenged these findings and demonstrated low job quality in Scandinavian countries, particularly in the lower private service sector. Scholars have tended to focus on differences between states and systems or/and differences between occupations in their studies of job quality.

With this article, I bring educational groups into the limelight and examine whether the autonomous and learning-intensive working life of Scandinavian countries also applies to people without higher education. I also explore whether there is a gap in job autonomy and informal job learning between educational groups and whether this gap varies across the social democratic systems of Sweden, Norway and Denmark, on the one hand, and the liberal systems of the United Kingdom and Ireland[9], on the other hand.

The analyses in this article are based on data from the PIAAC survey (2011–2012) and factor analyses generated from self-reported information about job autonomy and informal learning in the respondents' current jobs. As expected, this article demonstrates that Scandinavian workers without higher education experience greater job autonomy than their counterparts in the United Kingdom and Ireland. Moreover, the gap between educational groups in terms of job autonomy is smaller in Scandinavia than in the liberal system. In the United Kingdom and Ireland, workers without higher education are disadvantaged when it comes to job autonomy, both in the relative and absolute senses. First, they experience less autonomy in their jobs than workers with higher education do. Second, they experience less autonomy than their Scandinavian counterparts do. This applies even when selection into different occupations is accounted for.

When it comes to job learning, the picture is different. Compared to the United Kingdom and Ireland, Scandinavian working life demonstrates a relatively high level of informal job learning – especially in Norway. This, however, applies when selection into different type of jobs and other background variables are accounted for in the analyses, which implies that both in Scandinavia and the United Kingdom, workers with low education seem to be selected into occupations offering relatively little informal job learning. Workers in the United Kingdom and Ireland generally experience less job learning, regardless of differences in company size, the share of different occupations and sectors, and country-specific differences in background characteristics. Furthermore, workers with only lower secondary school seem to be relatively learning deprived in both social democratic Denmark and the liberal United Kingdom. In Ireland, informal job learning is relatively low for all educational groups.

[9] I here rely on Esping-Andersen's (1990) understanding of the Irish system as a liberal system. However, it should be noted that this categorisation has been challenged by for instance Gallie (2007b) who states that its industrial relation system makes such a classification problematic. Other researchers have argued that Ireland is more of a "Catholic corporatist" country (Cochrane et al., 1993).

5.2 Article II Job autonomy, vocational education and cognitive skills in different skill formation systems.

Aspøy, T. M., & Nyen, T. (under review). Job autonomy, vocational education and cognitive skills in different skill formation systems. Submitted to *Social Forces.*

Similar to the first article, the second article, which I co-authored with one of the other project members, has a quantitative, comparative design. Here, we explore the perceived job autonomy among vocational workers within countries characterised by different VET systems. Drawing on typologies of different skill formation systems, this article explores the assumption that vocational workers within vocational systems fostering broad vocational skills are more autonomous than workers in systems where the skill base is more narrow. In particular, Germany's collective system, known for its broad skill base, has previously been referred to as fostering more job autonomy among vocationally educated workers than in other countries. Furthermore, we study whether cognitive skills have a stronger association with job autonomy among vocational workers in the liberal VET system, where formal vocational skills are less recognised in the labour market.

To answer our research questions, we use data from the PIAAC survey, focusing on workers aged 30–54 years. Referring to a typology formed by Busemeyer and Trampusch (2012), we include seven countries in this study: three countries representing collective skill regimes (Denmark, Austria and Germany), one country with a mixed regime (Norway), one country with a so-called "statist" skill regime (Sweden) and two countries with liberal skill regimes (Ireland and the United Kingdom). In both the collective, mixed and statist skill systems, vocational education generally provide a broader skill base than in the liberal skill system. We distinguish between vocational workers at the upper secondary level and vocational education at the higher levels.

We find that vocationally educated workers in the continental and Scandinavian countries enjoy higher autonomy than their counterparts in the United Kingdom and Ireland, even when controlling for underlying variables, including cognitive skills. This may indicate that their VET systems enable workers to work autonomously and/or stimulate such work organisation but may also be due to other national factors, such as the bargaining power of labour unions. It is worth noting that job autonomy is higher both in countries known to have statist and collective VET systems. If related to the VET system, higher job autonomy seems more attributable to the broad vocational

skills/competencies delivered by both systems than to the particular characteristics of the collective system. We find that Austrian workers with higher vocational education have more job autonomy than their counterparts in the other countries. However, the benefit of broad vocational skills per se should be reflected in the smaller gap between workers with vocational upper secondary education and people with higher education. This gap, however, is not significantly smaller in the "broad skill" countries than in the United Kingdom. In fact, in Germany, the gap is even larger.

When analysing the relation between cognitive skills and job autonomy, the United Kingdom and Ireland stand out. Cognitive skills have a stronger association with job autonomy for vocationally skilled workers in the United Kingdom and Ireland than in the other countries, with Germany notably being the country closest to the UK and Ireland. However, the stronger association between job autonomy and cognitive skills in the UK and Ireland applies regardless of educational level. Nevertheless, the association is consistent with an explanation focusing on differences in the broader skill formation system. If the work roles in companies in "liberal" countries are less related to the formal education system, the individual job quality is likely to depend more on cognitive skills. Even more significantly, if there are fewer jobs based on high-quality medium-level vocational qualifications, cognitive skills may also sort more strongly into "good" and "bad" jobs, with low work autonomy associated with bad jobs.

5.3 Article III: Job quality through upskilling? The case of the cleaning industry in the collective system of Norway

Aspøy, T. M. (2020). Job quality through upskilling? The case of the cleaning industry in the collective system of Norway. *Journal of Education and Work, 33*(3), s229–241.

In Article 3, my purpose has been to explore the relationship between skills and job quality, using the case of the cleaning industry in Norway as a "lens". An important aim was to explore the assumption, which is salient in public discourse, that upskilling yields job quality and productivity. Furthermore, it is a response to literature on skills, which is often critical towards the assumption that skills can lead to job autonomy but which also suggests that the Nordic model might facilitate such a relation.

The article is based on previous research, first and foremost a qualitative study on women cleaners conducted by Skilbrei (2003). In the article, I combine aspects from skill theory with new institutionalism, a theoretical framework which emphasizes educational transfer. I focus on the introduction of a trade certificate for cleaners as an attempt to improve formal skills and job quality in the context of the Norwegian collective system. For the stakeholders involved – the tripartite body consisting of the two collective actors and the state – the motivation behind introducing the trade certificate in the cleaning occupation was not a case of increasing productivity through upskilling. Rather, it was a case of increasing job quality through the signalling of productivity and complexity.

In line with institutional theory on educational transfer, this article interprets a change in educational skills – the introduction of the trade certificate for cleaners – as a way of legitimising an occupation with a poor reputation by 'borrowing' legitimacy from the educational system. The trade certificate functioned as a component in what I in the article term the "reverse signalling" of skills towards potential employees, but also the procurers of cleaning services. I suggest this strategy was founded on a reliance on knowledge society narratives: education and skills yield complexity, productivity and job quality. However, this change in 'formal structure' did little to change industry job quality, which was subjected to a strict tender-based regime where price generally outweighed the value of skilled work. A general application of a collective wage agreement was necessary to improve job quality. This demonstrates the limits of upskilling for changing work design, even in a collective bargaining system.

When it comes to issues of job quality, the importance of pay is hard to beat. For there to be higher pay, the hard regulations posed by the tripartite body (including the governmental authority) were crucial. This is an institutional feature of Nordic working life. The scope for upskilling to change working conditions may differ across occupations and industries, and factors such as market competition and union presence are important in this respect.

5.4 Article IV: When work comes first: young adults in vocational education and training in Norway

Tønder, A. H., & Aspøy, T. M. (2017). When work comes first: young adults in vocational education and training in Norway. *International Journal for Research in Vocational Education and Training, 4*(3), 270–288.

The fourth article is based on qualitative interviews. While the focus is directed on individuals' motivation to formalise their vocational skills, it touches upon institutional aspects in the way that individual opportunities to obtain a formal qualification have been provided through specificities in the Norwegian skill-formation system. Norway has a system of VET that combines statist and employer involvement, with an emphasis on apprenticeship training. Although vocational education is embedded in the upper secondary school system, even adults in Norway can acquire formal VET qualifications – either as adult apprentices or through the experience-based trade certificate programme as so-called practice candidates.

The practice candidate scheme provides an opportunity to register for a theoretical and practical trade examination based on informal, occupational skills that have been acquired through their work experience. Most of this learning can be defined as informal learning that happens through the everyday job. Thus, Article 4 actualises how informal learning on the job can be important to the individual. The practice-based route has played an important role in the labour market due to collective agreements that provide skilled workers with trade certificates and higher wages (Skule et al., 2002). The experience-based trade certificate is thus an example of the interrelation between the tripartite system and the educational system.

The purpose of this study was to explore personal trajectories within the Norwegian context to gain a better understanding of why people choose to obtain a trade certificate as young adults instead of following the standardised route drawn up by policymakers. Qualitative interviews were conducted with 34 people who obtained a trade certificate when they were between 25 and 35 years of age. We confined the study to childcare and youth workers, and carpenters.

A common characteristic among both groups was that the opportunity to obtain a trade certificate as an adult was important, and several motives were identified. For childcare and youth workers working in the public sector, a trade certificate in most, if not all, cases meant higher wages and increased job security. In addition, passing the trade examination often had positive effects in terms

of higher self-esteem. Many discovered that they had learned much through work and had become motivated to pursue further education. For carpenters, the trade certificate did not necessarily lead to higher wages because they already earned wages at the same level as formally skilled workers. Nevertheless, they reported that the trade certificate was valued by employers and was important in terms of increased job security and more opportunities in the labour market. For both groups, the trade certificate also opened up new prospects for further education. The opportunity to formalise skills and knowledge from work-based learning was important in adults' decisions to obtain a trade certificate. Many participants in our study had low motivation to attend school when they were young. Thus, the chance to earn a trade certificate as a practice candidate played a crucial role in their careers. In the Norwegian transition system, the practice candidate scheme is a "second chance" measure that provides access to formal qualifications that are recognised and valued in the labour market. Such measures may be of particular importance in a universalistic regime where the general level of education is high, there is strong cultural expectation to complete a formal education and the opportunities in the labour market for persons without a formal education are limited.

6. Concluding discussion

Many factors shape people's opportunities in the labour market, but in a high skills society, formal education stands out as one of the most important. People without higher education are generally left with fewer opportunities than those who have completed a college or university degree. Education and skills are inevitably connected to institutions, like the educational system where the education was received and skills were formed, but also the working life, where the individual's education and skills are deployed as a (potential) market value and where skills may also be further developed through job learning.

From previous research, we know that job quality among workers without higher education differs – between workers, between industries and between countries. This thesis contributes to the substantial body of research that focuses on the association between low education and labour market penalties (e.g. Bäckman et al., 2015; Brekke, 2014; Campbell, 2015). At the same time, my purpose has been to sketch a less black-and-white image of the labour market situation among this diverse group of workers. One of the goals of this thesis has been to investigate how institutional context matters for job quality among workers without higher education, and I have aimed to understand more about the relationship between skills and job quality. Two aspects of job quality are highlighted: job autonomy and job learning. I have taken on a broad approach and studied job quality from different perspectives. I have explored opportunities and limitations for workers without higher education in Norway, contrasted with other Western European countries, and with other education groups. This approach has enabled me to emphasise a diverse set of factors that contributes to the understanding of job quality within the context of the high skills society.

In this final section of the introduction, I present the main findings of my research and discuss how they answer the overarching research question: What are the opportunities for job autonomy and job learning for workers without higher education, and how do these opportunities differ according to different institutional contexts? The studies presented in the four articles contribute to answering this question in different ways.

6.1 Main findings

Article 1 demonstrates that workers without higher education in Scandinavia experience more job autonomy than their counterparts in the United Kingdom and Ireland, which are countries often said to represent liberal systems. Moreover, Scandinavian workers with low education experience a level of job autonomy close to that of workers with higher education. In the United Kingdom and Ireland, on the other hand, the level of job autonomy is lower in Scandinavia in the absolute sense. Moreover, in the United Kingdom and Ireland, the gap in job autonomy between workers with higher education and workers with low education is evident. Regarding informal learning opportunities on the job, the results indicate that when selection into different types of jobs and other background variables are accounted for, Scandinavian workers without higher education experience the same level of informal job learning as their higher-educated counterparts. However, this can also be understood as a relative disadvantage among workers without higher education that seems to be associated with selection into occupations with few opportunities for informal job learning in Scandinavia, as well as in the United Kingdom. The cross-national differences in job autonomy are thus more in line with our expectations than the cross-national differences in job learning. In particular, it is worth noting that while the job autonomy gap is particularly large in Ireland, there is no such gap when it comes to job learning.

What, then, can be said about job autonomy when it comes to vocationally educated workers in particular? These are workers without higher education at the university and college levels, but their formal qualifications may still be highly valued in the labour market. According to theories on skill formation, as well as previous research, the working conditions experienced by this group may differ according to the national system for vocational education as well as occupation. The VET system is highly esteemed in parts of Norwegian working life. The collective partners take an active part in vocational skills formation through apprenticeship training, and the state contributes extensive financial support to the training companies.

In Article 2, we draw on theories on skill formation and the idea that broad vocational skills foster more job autonomy among vocational workers (Clarke, 2011) and explore job autonomy among vocationally educated workers within countries characterised by different VET systems. Our findings are ambiguous. Contrary to our expectations, we find that in the United Kingdom, a system known for fostering narrow vocational skills, vocationally educated workers do not

experience less job autonomy than workers with higher education. In Germany, a country known for broad vocational skills, vocationally educated workers at the upper secondary level experience less job autonomy than workers with higher education. Nevertheless, Article 2 also demonstrates that vocationally skilled workers in Germany, Austria and Scandinavia enjoy higher autonomy than their counterparts in England and Ireland. Austrian workers with vocational education at higher levels, however, are more autonomous than their counterparts in any other country. This is an interesting finding that warrants further research.

Another interesting finding in Article 2 is that cognitive skills have a stronger association with job autonomy for vocationally skilled workers in the United Kingdom and Ireland than in the other countries. We expected this to apply to vocationally educated workers in particular, as the VET system in these countries, especially in the UK, is fragmented and may lead employers to rely on general education and work-based training for this group of workers. Work quality and autonomy within a given type of job could vary more and be likely to depend more on cognitive skills. However, the stronger association between job autonomy and cognitive skills in the United Kingdom and Ireland applies regardless of educational level, and include workers with higher education. The study in Article 2 provides no clear answers to the mechanisms behind this finding. The association between cognitive skills and job autonomy *and* differences in the signalling effect of formal education across countries both warrant further research.

The relation between institutions, vocational skills and job quality is also treated in Articles 3 and 4. These articles look at VET in the Norwegian context and, in different ways, highlight how institutional arrangements relate to job quality for vocational workers. They demonstrate the difference between motives pertaining to changes in individual conditions and motives pertaining to changes in working conditions in an occupation as a whole.

The formalisation of vocational skills can be meaningful at the individual level, as shown in Article 4. As demonstrated by Bratsberg et al. (2019), obtaining a trade certificate through the practice candidate scheme is, for many adult workers in Norway, not only a matter of formalising vocational skills but also of completing upper secondary school for the first time. In the Norwegian transition system, the practice candidate scheme thus represents a “second chance” that provides access to formal qualifications that are recognised and valued in the labour market. The labour market value of an upper secondary school education is well documented. The practice candidate

scheme makes it possible for workers without upper secondary school to obtain such credentials based on work experience. For many workers, obtaining a trade certificate represented higher wages in the same job position and increased occupational job security.

However, even though formal upskilling can be meaningful at the individual level, formal upskilling alone does not necessarily improve the job quality of the occupation as a whole. Article 3 addresses the third research question: What is the potential for upskilling to improve job quality, and how does this relate to the institutional context? Upskilling in terms of the formalisation of competencies is an important aspect of contemporary working life in Norway. While the two cross-country studies in Articles 1 and 2 provide an overall image of job quality among workers without higher education, the study of the cleaning occupation in Article 3 demonstrates the relationship between vocational skills and job quality at the industry level. This article demonstrates how formal vocational skills alone cannot improve either the job quality or the operating conditions of an entire occupation. Article 3 underlines that the introduction of the trade certificate did little to change the cleaning industry's job quality, which was subject to a strict tender-based regime in which prices generally outweighed skills. A general application of a collective wage agreement was necessary to improve job quality, demonstrating the limits of upskilling for changing work design, even in a collective bargaining system. At the same time, this study illuminates the importance of collective partners and, as such, supports the argument posed by the power resource perspective, that a strong trade union is a prerequisite for higher job quality. Working life regulations may preclude irregular working conditions.

The final research question is addressed in both Articles 3 and 4: How are opportunities and motivation to upskill shaped by institutional context? The articles explore motivation at different levels. Article 3 draws attention to institutional factors and focuses on the tripartite body – consisting of two collective actors and the state. In line with institutional theory on educational transfer, Article 3 interprets a change in educational skills – the introduction of the trade certificate for cleaners – as a way of legitimising an occupation with a poor reputation. The trade certificate was an attempt to improve formal skills and, by doing so, improve job quality. I suggest that this strategy was founded on central beliefs (referred to as "narratives" in Article 3) in the knowledge society: education and skills yield complexity, productivity and job quality. The stakeholders'

motives stemmed from the idea that formal skills could signal the value of cleaning work to clients so that they would be more willing to acknowledge other aspects of the job than just price.

The instrumentalist view on skills and upskilling described in Article 3 may seem like a phenomenon that adds little value for the individual worker. The stories of carpenters and childcare workers in Article 4 may bring about some nuances. Having acquired knowledge from work-based learning was an important element in adults' decisions to obtain a trade certificate. The carpenters in our study described the joy of learning new things, and they valued variation and creating something and considered these aspects crucial elements of the job. However, the formalising process itself did not necessarily entail a learning process – for the carpenters, the learning that happened prior to the formalisation and obtaining formal skills was seen as a convenient formality. The trade certificate could improve labour market conditions and, to some extent, raise pay. There are some similarities here to the instrumental motive described in relation to the cleaning industry in Article 3 but with notable differences in the institutional context. Most importantly, the trade certificate within carpentry was already embedded in the labour market and acknowledged among colleagues and managers, as well as customers. Moreover, the carpenters in our study already enjoyed decent working conditions.

For the childcare workers, the acquisition of the certificate, along with the courses it entailed, provided valuable learning as they saw it. The theoretical knowledge made them conscious of the "embodied" and unconscious knowledge they had acquired through their work, which has clear parallels to the ethnomethodological process described in Section 3.2. "Attaching" theory to experience-based knowledge, however, was not necessarily the motive to begin with but was rather an unforeseen benefit. Of greater importance, it seemed, was the prospect of getting a formal education. The formal trade certificate demonstrated that the job required skills, and the formal papers brought increased self-esteem with them.

6.2 Job autonomy in comparative research

When comparing countries case-wise, as I do in Articles 1 and 2, the selection of countries is motivated by certain expectations about the empirical findings. This entails the risk of citing the results in support of these theoretical hypotheses, even if the analyses produce only minor differences in the dependent variable. I have tried to be aware of this potential for bias in my

interpretation of the findings. Surprisingly, perhaps given the theories on cross-national differences in job autonomy, in the data I rely on, the significant between-country differences in job autonomy are relatively small. Although the United Kingdom and Ireland clearly exhibit lower autonomy than the other countries in our study, this topic still merits reflection.

Table 6.1 is based on Table 2 in Article 1. It demonstrates mean scores on one of the questions pertaining to job autonomy – to what extent the respondent felt that he or she could choose how to do the work. Answers were given on a scale of 1–5 as (1) 'Not at all', (2) 'Very little', (3) 'To some extent', (4) 'To a high extent' and (5) 'To a very high extent'.

Table 6.1. (Drawn from Table 2, Article 1) To what extent do you feel that you can choose how to do the work? (1–5) Mean score and SE in parentheses

	Sweden	Norway	Denmark	UK	Ireland
All	*3.9 (0.02)*	*3.8 (0.02)*	*3.9 (0.02)*	*3.3 (0.03)*	*3 (0.03)*
Lower secondary school	3.8 (0.08)	3.7 (0.05)	3.7 (0.06)	2.8 (0.07)	2.7 (0.09)
Upper secondary school	3.9 (0.03)	3.8 (0.05)	3.8 (0.04)	3.2 (0.05)	2.9 (0.07)
Higher education	4 (0.03)	3.8 (0.03)	4 (0.02)	3.5 (0.04)	3.2 (0.03)

Table 6.2 demonstrates overall scores (independently of educational level) for all three questions pertaining to job autonomy – with similar scales. The table includes Austria and Germany.

Table 6.2. (Drawn from Table 1, Article 2). Job autonomy scores (1–5) Mean score and SE

	Sweden	Norway	Denmark	Austria	Germany	UK	Ireland
Variables in the 'Autonomy' factor (mean, SE below)							
How to do the work	3.9 0.03	3.8 0.02	3.8 0.02	3.9 0.03	3.7 0.03	3.3 0.03	3 0.04
Speed of work	3.5 0.03	3.6 0.02	3.6 0.02	3.8 0.03	3.6 0.03	3.2 0.03	3.1 0.04
Sequence of tasks	3.9 0.03	3.7 0.02	3.9 0.02	3.8 0.03	3.6 0.03	3.3 0.03	3.1 0.04

If we look at workers with lower secondary school in Scandinavia and in the United Kingdom and Ireland in Table 6.1, there is a difference of 1 point on the 1–5 scale, with Scandinavian workers

feeling that they can choose how to do the work close to "a high extent" and UK and Irish workers feeling that they can choose how to do the work close to "some extent" – not a minor difference, one could argue. The differences between the United Kingdom and Ireland on the one hand, and Scandinavia on the other, are in line with previous research and are also demonstrated in Article 2, as shown in Table 6.2. Turning to the other countries displayed in Table 6.2, between-country differences are, although statistically significant, arguably less notable. This issue of little variation in the dependent variable has implications for the possibility of revealing a significant correlation between the variables of interest.

The relatively low job autonomy among Irish and UK workers is thus robust compared to previous research. However, Austria, which is the country with the most autonomy in our study, demonstrates only an intermediate level of job autonomy in Gallie's (2007c) study. This difference could be ascribed to changes across time or to differences in measurement. As pointed out in Chapter 4, job autonomy is measured on a different scale in Gallie's (2007c) study. This implies that analyses of job autonomy (as well as other aspects of job quality) are vulnerable to differences in operationalisations and differences in data such as sample size, selection and changes across time – to mention some aspects.

6.3 Policy implications

One of the policy implications to be drawn from this study concerns the relationship between formal skills and job quality. As this study has demonstrated, this is not a straightforward relationship. Both formal education and learning participation in general can have an exclusionary and stratifying function such that people without the "right" skills are left with no jobs or jobs with poor conditions. However, at the same time, deploying formal education as a means to formalise competencies can have an equalising effect. The opportunity to combine learning participation with work is a way of overcoming the potentially exclusionary aspect of the formalisation of skills by including people with low formal skills. For this to happen, however, certain institutional factors must be present. Most importantly, formal skills must be valued among both employers and workers and, in the case of competitive markets, also among clients. The study in Article 4 showed that the opportunity to acquire formal VET qualifications through workplace learning provides an important second chance for many young adults in Norway. In the article, we argue

that policymakers need to view educational achievement from a long-term perspective and design institutional structures that support lifelong learning opportunities at work, as well as in formal educational settings. I would also add that such opportunities should not be confined to people who already find themselves in long term employment, like in our study.

6.4 Limitations and suggestions for future research

The studies in this thesis obviously have limitations. Regarding the quantitative studies, I would like to mention some implications of the cross-section design and the lack of industry-specific analyses due to the sample size. The analyses in Articles 1 and 2 suggest that the differences between educational groups vary across occupations and sectors, as demonstrated by previous research. Although controls for occupation and sector are included in the analyses of this study, the sample size does not allow for a more thorough investigation of such differences. In line with employment regime theory, it would be interesting to explore whether learning and autonomy differ according to union density at the company level, across different employment regimes and for different education groups. Future studies could focus on these questions by applying a larger quantitative dataset. Furthermore, research on job autonomy among vocationally educated workers within specific occupations would be of great value. In-depth qualitative studies could also provide valuable knowledge.

Although this thesis has demonstrated that the relation between cognitive skills and job autonomy varies across countries, it is not a study of the causal relationship between these variables. The relationship between cognitive skills and job autonomy deserves further attention, and additional studies could contribute to a deeper understanding of the mechanisms behind this statistical relationship. Finally, the measurement of both job autonomy and job learning, and the relationship between them, deserves more attention. How individuals perceive their own level of job autonomy is questioned in Chapter 4. Studies that combine observations of actual work situations and in-depth interviews with employees across industries and countries could offer important insights.

As discussed in Chapter 4, this study includes, first and foremost, workers in ordinary job relationships and not workers who are self-employed. If the platform economy grows, it will become increasingly important to include workers in atypical work relationships in analyses on job quality. Furthermore, the quantitative studies in this thesis are based on cross-sectional data,

which has clear limitations. From a longitudinal design, we could learn more about individual job quality across time and the prevalence – and consequences - of long-term low job quality, both when it comes to job autonomy and job learning. This could also be a qualitative design, where the same people are followed across time.

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Article I

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Low education, high job quality? Job autonomy and learning among workers without higher education in Scandinavia, the United Kingdom and Ireland

Tove Mogstad Aspøy

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Article II

Article III

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Job quality through upskilling? The case of the cleaning industry in the collective system of Norway

Tove Mogstad Aspøy

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Article IV

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When Work Comes First: Young Adults in Vocational Education and Training in Norway

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Abstract: Since reforms implemented in 1994, vocational education and training (VET) in Norway has been integrated and standardized as part of upper-secondary education. When young people enter upper-secondary education at the age of 15 or 16, they can choose either a vocational programme or a general academic programme. The standard model in vocational programmes is 2 years of school-based education, followed by 2 years of apprenticeship training. However, in practice, only a minority follow the standard route and acquire a trade certificate within 4 years. The average age upon completion of a vocational programme in Norway is 28 years, which is among the highest in the OECD. The purpose of this study was to explore personal trajectories within the Norwegian context to gain a better understanding of why people choose to obtain a trade certificate as young adults, instead of following the standardized route, drawn up by policy makers. Qualitative interviews were conducted with 34 people who obtained a trade certificate when they were aged between 25 and 35 years. The study showed that the opportunity to acquire formal VET qualifications through workplace learning provides an important second chance for many young adults in Norway. Based on the findings, we argue that policy makers need to see educational achievement in a long-term perspective and to design institutional structures that support learning opportunities at work, as well as in formal educational settings.

Keywords: VET, Vocational Education and Training, Young Adults, School-to-Work Transitions, Dropout, Norway

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1 Introduction

School-to-work transitions have been described by many scholars as less standardised and more individualised due to the restructuring of work and deregulation of the labour market during the last decades (Furlong, 2009; Heinz, 2002; Müller & Gangl, 2003; Walther, 2006). Young people are exposed to a wide range of educational options. At the same time, they have to handle risk and uncertainty related to rapid changes in the labour market. As a consequence, young people often change direction within the education system, or they move back and forth between school and work (Jørgensen, 2013b). Several studies have shown that policy measures aimed at more efficient school-to-work transitions in vocational education and training (VET) often do not consider these more complex and prolonged trajectories (Christodoulou, 2016; Graaf & Zenderen, 2013; Molgat, Deschenaux, & LeBlanc, 2011). There is a significant body of research on individual experiences within adult learning and within VET. However, few researchers have conducted qualitative studies on the personal trajectories of people who acquire formal VET qualifications as young adults. The purpose of this paper, therefore, is to analyse trajectories of people who follow non-standardised pathways and obtain formal VET qualifications as adults within the Norwegian transition system[1]. In addition, we discuss how institutional structures in the education system and the labour market can support completion of a VET programme as adults.

The article is structured as follows. In section 2, we outline the analytical framework by focusing on transition systems and personal trajectories from school to work. Section 3 provides a brief overview of the Norwegian transition system, focusing on vocational education. Then, Section 4 describes the data and method. In Section 5, we present and analyse individual trajectories towards a trade certificate in carpentry and in child care and youth work. In the final section, we discuss the main findings and policy implications from the study[2].

2 Theoretical Framework

Until the 1970s, it was not uncommon to leave school and enter the workplace at the age of 15 or 16. But with the deindustrialisation and rising youth unemployment of the 1970s, young people tended to stay longer in the education system (Furlong, 2009; Lundahl, 2012). Today, compulsory education in most European countries lasts 9–10 years, until the age of 15 or 16 (European Commission, 2014). However, most young people continue their education beyond compulsory school. In effect, upper-secondary education is perceived as more or less mandatory in most countries. General education levels have increased, and an increasing number of people move on to tertiary education. Employment opportunities for young people have changed, with fewer jobs in manu-

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facturing and more jobs in the service sector, which demand different types of skills (Reegård, 2015). A rapidly changing labour market in combination with changes in the education system have contributed to more complex and extended transitions from school to work and from youth to adulthood (Heinz, 2002, 2009; Müller & Gangl, 2003; Walther & Plug, 2006). When studying educational trajectories, we need to understand how different options are being considered and valued by youth and young adults in various life phases and within different institutional structures. Thus, by analysing personal trajectories towards formal VET qualifications, the paper aims to increase our understanding of how young people navigate within different institutional contexts.

In many cases, political measures and reforms seem to be based on assumptions of young people's rational and goal-oriented choices. These assumptions often diverge from the actual transition patterns described by researchers (Jørgensen, 2013b; Stokes & Wyn, 2007). In addition, most policy measures and reforms focus primarily on changes within the education system. However, actual transition patterns are also shaped by broader institutional and structural factors related to labour market organisation, welfare systems and family structures. This broader concept of institutional factors shaping school-to-work transitions can be referred to as a "transition system" or "transition regime" (Raffe, 2008; Walther, 2006). Most research on transition systems has been based on comparative analyses of survey data. One of the challenges of this research is moving beyond the nation–state as a unit of analysis to explain variations within countries (Raffe, 2008). In our study, we focus on individual trajectories in two selected trades to understand how people navigate within the Norwegian transition system. Our focus is on the interplay between individual and institutional factors in Norwegian VET.

The transition regime in the Nordic countries is often referred to as *universalistic*. Universalistic transition regimes are characterised by a comprehensive school system with national standards for education and training. In addition, there are welfare systems that provide young people with social assistance regardless of socio-economic background. Universalistic regimes are also charectarised by an extended public sector and high female labour market participation (Walther, 2006). However, there are also important differences between the Nordic countries. Researchers within the comparative VET literature have developed typologies related to different ways of connecting education and work. Sweden and Finland have strong traditions for state regulated and school based VET, whereas Denmark and Norway are based on a dual system, where school based education is combined with apprenticeship training provided by employers. Skill regimes based on the dual system are generally associated with low levels of youth unemployment. This is often seen as an indication of an efficient system that provides smooth transitions from school to work (Jørgensen, 2013b; Steedman, 2012). The development of specific occupational skills and a gradual socialisation to working life through apprenticeship are important mechanisms that contribute to smooth transitions. While transitions to work may be one of the strengths of the dual system, transitions from vocational training to tertiary education tend to be one of the major weaknesses (Cedefop, 2012; Jørgensen, 2013a; Powell & Solga, 2011). If access to higher education is blocked or restrained, the choice of a vocational education might be considered a blind alley or associated with high risk by adolescents and their parents. In countries with dual

systems, improved access to higher education, therefore, is important in order to raise the esteem of vocational education and training in apprenticeship-based systems (Graf, 2016; Jørgensen, 2015; Virolainen & Persson Thunqvist, 2016).

3 A Brief Overview of the Norwegian VET System

Rising youth unemployment at the end of the 1980s was an important backdrop for the introduction of a statutory right to upper-secondary education for young people in Norway via the 1994 reform (Nyen, Skålholt, & Tønder, 2015). Today, almost all 16-year-olds (98 percent) start directly in upper-secondary after completing lower-secondary education (Statistics Norway, 2017). In upper-secondary education, students can choose between eight vocational and five general studies programmes (in 2017). Norway has a unitary school system at the upper-secondary level, with vocational and general academic programmes offered within the same schools and with opportunities to switch from a vocational programme to an academic programme through a third supplementary year (Nyen & Tønder, 2015; Skule, Stuart, & Nyen, 2002). About half the students who start in upper-secondary education enter a vocational programme. However, dropout rates among vocational students are high, and a large number of students switch from vocational programmes to the third supplementary year in order to gain access to higher education (Bunting, Halvorsen, & Moshuus, 2017; Markussen, Frøseth, Sandberg, Lødding, & Borgen, 2011). Most higher education institutions in Norway are state financed and free of charge for the students. The share of the population aged 19-24 in higher education has increased significantly in the last decades, rising from around 10 per cent in 1980 to 35 per cent in 2016 (Statistics Norway, 2017).

A stated aim when introducing the Reform of 1994 was that 90 percent of students should complete upper secondary education within five years. Those who do not meet this aim are defined as dropouts and are a matter of great political concern. Since 1994, completion rates in upper secondary education have stabilised at around 70 percent, measured after five years. Completion rates in upper-secondary education are given high political priority in Norway and are monitored closely by education authorities (Hiim, 2017). A number of policy initiatives have been implemented in order to reduce dropouts, with a particular focus on students in vocational programmes. One example is the Ny GIV ("new possibilities") initiative that was launched in 2010. The aim was to improve completion rates with specific measures targeted at low-performing students and to motivate participation in education for students ages 16–21 who were neither in education or in employment (OECD, 2015). With a strong policy emphasis on dropout and educational attainment among youth at risk in a short time perspective, less attention has so far been paid to the personal trajectories of students who obtain their trade certificates as young adults (Nyen et al., 2015).

Adults in Norway can acquire formal VET qualifications either as adult apprentices or through the experience-based trade certificate programme as so-called practice candidates. The practice candidate scheme provides an opportunity to register for a theoretical and practical trade examination based on occupational skills that have been

developed through work experience. Normally, a minimum of five years of relevant and documented work experience is required. Those who pass the trade examination receive the same formal qualifications and the same documentation as those who follow the standard route. The practice based route was introduced in the 1950s and has played an important role in the labour market due to collective agreements that give skilled workers with a trade certificate a higher wage (Skule et al., 2002).

About 1500–2000 people receive a trade certificate as adult apprentices every year. Analysis of register data shows that the adult apprentices have a background similar to those who complete their vocational training by following the standard model. The practice candidates, however, have a social background similar to people who never complete upper-secondary education, meaning that this institutional arrangement has the potential to reduce social inequalities. As many as about 6000–7000 persons receive their trade certificates as practice candidates every year. Two out of three practice candidates complete upper-secondary education for the first time when they pass the test and receive the trade certificate (Bratsberg, Nyen, & Raaum, 2017).

4 Data and Method

The data used in this article build on findings from qualitative interviews conducted between 2014 and 2015. The aim of the interviews was to investigate the personal trajectories of people who obtain formal VET qualifications as young adults. Two vocational trades were selected for the comparison: 1) carpentry, a male-dominated occupation mainly in the private sector, and 2) child care and youth work, a female-dominated occupation in which most workers are employed by municipalities and work in kindergartens, schools or supervised after-school activities. By concentrating on only two occupations, we could investigate individual trajectories within similar institutional contexts. The trades were chosen because they are big in terms of number of trade certificates completed annually, and because the occupations in themselves are characterised by a demand on the labour market. In order to capture the influence of regional variations, we interviewed people living in two different geographical regions in Norway: 1) the East (big city), characterised by both a relatively large share of immigrants and, on the average, a high educational level, and 2) the West (medium-sized city and surrounding rural areas), where vocational studies (especially technical studies) are in relatively high regard.

Contact information was gathered from county administration registers. We interviewed 34 people who were 25–35 years old when they acquired their formal VET qualifications (a trade or journeyman's certificate), approximately two years after formalisation. This was to secure that enough time had passed for them to reflect on their choices and the possible consequences. At the same time, their decision-making processes would still be relatively fresh in their memory. The interviews were semi-structured, with 29 face-to-face and five telephone interviews. The length of the face-to-face interviews varied from about one hour to one and a half hours. The telephone interviews were somewhat shorter.

All the interviews were transcribed verbatim. Each individual was treated as a specific case, and each transcription was read thoroughly before being organised according to the interview guide's main categories: family background, educational experience, transitions from school to work and decision making processes related to attaining the trade certificate. The case material, then, was comprised and systemised within each of these categories. The names used in the article are fictitious. All the participants freely agreed to participate, and no incentives were given. The interviewees gave their consent to be contacted by the researchers to the county administration. All interviews were recorded with consent of the interviewees.

Mapping trajectories and decision-making processes is about finding reasons: Why did they get their trade certificates as adults and not as young students? We were, however, careful with "why" questions, as they have two important disadvantages. First, they may cause respondents to feel defensive, which may inhibit their responses. Second, they infer a cause–effect relationship that may not exist (McNamara, 2009). Thus, such questions may push the interviewee to construct an explanation "on the spot". The interviewees were asked to talk about their educational experiences, their family's education and influence on their choices, their work experience and the story behind entering carpentry or child care and youth work and acquiring the trade certificate. The interview guide contained several questions within each category, but the interviewees were encouraged to speak freely. The interviewer structured the order of the topics according to the flow of the conversation, asking frequent follow-up questions and pursuing topics introduced by the interviewee. The interviews, thus, played out as biographical interviews used by several researchers within the field of adult education (Merrill, 2009) in the sense that they generated vivid descriptions and in-depth insights into lived experiences (Barabasch & Merrill, 2014)

Barabasch and Merrill underline that narratives are a co-construction between the researcher and the researched. They state, however, that narratives are always only partial, as an individual selects what he or she wants to tell about their past and present lives. They are also located in a specific moment of time (Barabasch & Merrill, 2014, p. 288). We cannot eliminate any possibility of post-hoc rationalisation of personal choices or the construction of causalities, or the omission of details in their stories that they simply did not want to share with us.

5 Empirical Findings

This chapter gives a brief overview of the participants in the study before presenting the findings from the interviews with carpenters and child care and youth workers.

5.1 Participants

As Table 1 demonstrates, most of the interviewees completed upper-secondary school for the first time before entering the trade and not as they obtained their trade certificate in carpentry or child care and youth work as adults. All but one of the eight immigrants in our material moved to Norway as an adult, and most immigrants had completed upper-

secondary school in their home country. All eight immigrants lived in the East region in Norway. Two of the carpenters had migrated from Eastern Europe, and one from Sweden. Among the child care and youth workers, the immigrants were from Eastern Europe, Africa and Asia.

Table 1: Descriptive characteristics of participants

		Carpenters	**Child care and youth workers**
Region	East region (big city)	9	8
	West region (medium city/rural area)	10	8
Gender	Men	19	5
	Women	0	11
Formal learning category	Adult apprentices	8	3
	Practice candidates	11	13
Completed upper-secondary school before	Yes	16	11
	No	3	5
Immigrant	Yes	3	5
	No	16	11

Some of the interviewees had one or two parents with a higher education, but the majority came from working-class backgrounds. Many of the interviewees first embarked on, and completed, general studies in upper-secondary school. (The general track prepares the student for higher education, but not for a specific occupation.) Most of them explained that either their parents had encouraged them to make this choice, that they had followed their friends or just that they were not ready to choose an occupation at the age of 15 or 16. At the same time, most of the interviewees stated that their parents generally were supportive of their educational choices when they were young or that they did not express strong opinions about their choice. A couple of the carpenters chose the general track due to initial ambitions to become engineers. Only one of the carpenters explained that his highly educated parents had discouraged him from embarking on vocational studies when he started upper-secondary school.

A common statement among the child care and youth workers who completed upper-secondary school in the general track was that they were tired of school and not motivated for further studies at the time of their graduation. The carpenters, in contrast, generally chose a different wording and explained how they were drawn to work rather than studies, especially after completing military service. Only a minority of them expressed that school was somewhat of a struggle when they were young.

5.2 Carpenters

In this section, we will show how reasons for entering carpentry as a trade can be distinct from the reasons behind the decision to obtain a trade certificate. Two main paths

towards the trade were detected in the material. Some of the men had been introduced to carpentry by chance. Others had entered the occupation intentionally. Independently of the path, they describe their interest in the trade in very similar ways: the value of varied work and the joy of learning new things. A common theme in the men's stories was about gradually gaining an interest in a new trade. Their trajectories towards carpentry were shaped as they went along—by curiosity, testing and an eagerness to learn new things. Two main routes were revealed: through the try-out of different jobs, and by intention. In the following section, we analyse the interviewees' subjective accounts of their trajectories, before describing the process towards formalisation of skills, i.e., obtaining the trade certificate.

5.2.1 Finding a job, Trying it out

The first category is characterised by testing different jobs. The carpenters' social networks played an important role in their entry into the occupation. Bjørn explained how, after 12 years working as a welder, he was ready for a change. When a good friend encouraged him to apply for work with his employer, he decided to go for it. His good impression of the company was a crucial factor in this decision. An obvious attraction to carpentry over welding was the social aspect of not having to work "inside a mask", Bjørn stated. Even more, a carpenter can enjoy fresh air.

The following quote from Jon illustrates the element of coincidence in trying out different occupations. After failing to enter art school, he decided to get a job and called a previous employer in order to list them as a reference. This company had since merged with a carpentry firm:

> *So, I called to hear whether I could list my previous manager as a reference for potential employers. And when I called, he said "Oh, Jon? You're that artist? Why don't you just come work with us?" And I figured, "Why not?"* (Jon)

The aspect of chance and the importance of the network are also illustrated by Thomas. After completing military service, he started working at a grocery store in his village. *"I told myself, 'I need a year, just to save some money and do some thinking, whether I shall pursue more education or not,"* Thomas stated. After a year, his cousin asked him to help him at his one-man carpentry business. He found the job interesting, and when the cousin moved to another part of the country, he followed.

In this category, we also find the only one who participated in adult education in the more conventional sense. Having dropped out of upper-secondary school, Peter received an offer from the municipality to participate in a carpentry training class for adults. As he did not have a steady job at the time, he decided to try it, although he had no knowledge about the occupation. *"Back then, I didn't even have any idea what a carpenter was,"* Peter stated. *"So, when I got there . . . the first day it was like, 'Oh, it's the same as being a joiner!'"*

5.2.2 By Intention

The other 12 men entered carpentry intentionally. Two of them pursued carpentry after first having had steady jobs in another field of work. Christian obtained a trade certificate within chemical processing and worked at an aluminium plant for 12 years. Although the job was steady, it was also monotonous, and the shift hours were demanding. His eventual change to carpentry was due to a wish to do more varied work and have a regular day job. Roger completed his nursing education and worked at different hospital departments for nearly a year before realising that he had made the wrong choice—being responsible for vulnerable people was not for him. Having tried carpentry work on a hobby basis with his father and brother, he was not unfamiliar with the work, and the decision to change seemed like a safe one. Ove explained that, although he considered carpentry as a 16-year-old, he chose the general upper-secondary track because carpentry had a somewhat dubious reputation:

> *The people who chose that track, most of them didn't care about school, and when you're ... 14, 15? ... and you don't know, and the school advisor looks at your grades and sees that they look fine, they will always recommend the general track.* (Ove)

With friends going for the general track to become "doctors and engineers", it was easy for him to make the same choice. After military service, however, he did not want to embark on higher education. While working temporarily at an orphanage, he gazed at the carpenters working on the orphanage rooftop and decided that their job looked easier than the shift work in the health sector.

Trond and Leif, who share a background from a general upper-secondary track, both described how they felt an urge to learn *a craft*. Leif explained his lack of practical skills: *"It suddenly hit me that I didn't know how to do any practical work, and I wanted to learn how to build my own things."* Unlike Trond, Leif did not have much experience with manual labour beforehand; his work experience was in retailing. Trond had different manual jobs during summer vacations.

The carpenters describe the appeal of carpentry in remarkably similar ways. For all of them, the fact that they *like* the craft played a significant role in their decision-making. The joy of learning new things was generally an important factor in the carpenters' stories. Variation and a notion of creating something were crucial elements. Christian, who worked for a manufacturer before, described the almost "Taylorist" way of working in his first construction company. He decided to change to a different company, where every carpenter is involved in the whole house-building process. *"You kind of feel more ownership to a house that way,"* Christian stated. This was also illustrated by Nils: *"Everybody works with everything. It's not like in other companies; that is, one team raises the building and another team isolates it. We go through the whole process."* Jon compared the repetitiveness related to working on large constructions to the monotony of working in manufacturing: *"It's like being a manufacturer working at the assembly line."*

5.2.3 Towards Formalisation

The interviews revealed two main explanations of actually formalising their skills. First, eight of the 19 men explained that they had a plan to obtain the trade certificate right from the day they decided to enter carpentry—they had a desire to work as skilled carpenters. The second category comprises those who obtained the trade certificate after a few years of working because it appeared to be a good opportunity, and it made little sense to turn it down. Only one of them considered carpentry as a 16-year-old. Many of the carpenters were exposed to some kind of practical work growing up, for example, by growing up on a farm (primarily, in the West) or by having fathers who were either carpenters or "hobby carpenters". Still, only one had considered carpentry as an alternative when applying for upper-secondary school.

Most of the carpenters obtained a trade certificate after four or five years in the trade. Two different modes of reasoning can be detected. The first category includes those whose plans were to obtain a trade certificate as they entered carpentry work (eight of the 19 men). For Ove, Gunnar and Fredrik, the goal of getting an education was an important driver. Ove had already completed general upper-secondary school. Nevertheless, he explained, *"I felt that I needed an education, and getting the trade certificate was a convenient way. You get paid, and I also figured that it could be a base for further education."*

This was also illustrated by Fredrik, who completed forestry studies with university preparatory courses. *"I felt as if I wasn't good enough, and I was looking to get more education,"* he stated. *"To get the title of a skilled carpenter, that meant a lot to me."*

For Peter, who took part in a class for adult learners, the apprenticeship was the laid-out course towards becoming a carpenter. Three of the adult apprentices commenced as apprentices from the beginning because this was the pathway they had heard of through their network. Thus, the apprenticeship was their path towards the trade, and earning the trade certificate was an obvious goal.

Other carpenters in our material obtained their trade certificate as practice candidates in the same company. They make up the second category: those who obtained the trade certificate because it appeared to be a good opportunity that it made little sense to turn down. Among them, only three can be said to have actively pushed for this opportunity. Lukas, who is a migrant worker, explained how he wanted the trade certificate to prove his skills and motivation to his Norwegian colleagues. In addition to securing mobility towards other employers, a certificate would allow him to stand out from the other migrant workers in construction. *"Skilled workers are more appreciated on the construction site,"* he stated.

Two carpenters explained that the certificate was highly encouraged and even considered a necessity by the employer. For the others, getting a formal certificate appeared more to be a nice offer than an absolute necessity. This was illustrated by Nils: *"I didn't need the trade certificate. But someone asked me if I wanted to do it, so... fair enough. I figured that a trade certificate would probably come in handy."*

5.3 Child Care and Youth Workers

Most of the 16 child care and youth workers in our material had no plans to work with children or youth when they were young. As young adults, they were primarily motivated for work. Some described themselves as tired of school, while others had established families of their own and needed a secure income. Many ended up working with children after trying out different jobs, indicating that their initial identification with child care and youth work was not very strong. Their professional interest and occupational identities as child care and youth workers developed gradually through work experience, often through positive feedback from employers, colleagues and parents of children in the kindergarten.

Assistant work in kindergartens and schools are some of the job opportunities that are still available to young people without formal education or prior work experience. A few of the women started out aiming for other occupations but changed directions when they had children of their own. One example is Anne, who wanted to become a hairdresser after graduating from high school. She found that, as a hairdresser, she had to work evenings and weekends. When she had her first child, she was offered a job in a kindergarten with more regular work hours. After that, she just continued to work in the kindergarten.

Becoming a parent is an event that often has an impact on the personal trajectories, for young mothers in particular. This was expressed by Lene: *"I became a mother quite early. I was only 20. It was not what I had envisioned, but it happened. And there are certain things in life that are more important, and then other things are put on hold."*

Most of the child care and youth workers that were interviewed tried out different jobs along the way. Some had cleaning jobs, others worked at filling stations, in different sales jobs, at restaurants and hotels, or as security guards. The men who were interviewed attempted many different jobs before they started working with children. Four of seven male child care and youth workers were immigrants. Two of these had higher education from other countries. Their main concern was to find work and a secure income as soon as possible. Adam worked as a teacher before he came to Norway, but knew that he would not be able to get a teaching position in Norway. His plan was to find a job in a kindergarten where he could learn the language and at the same time train to become a child care and youth worker and get a trade certificate.

Even if working with children was not a long-term plan, most of the child care and youth workers gradually developed positive attitudes towards their present occupation. In upper-secondary school, Maria never thought she would work with children. Today she says she enjoys her work very much:

> *What I like so much about my work is how the kids just love you, almost unconditionally. You just come in the morning, if you have a bad day, a bad start at home, but the kids meet you and smile and want to sit on your lap. They love you, and you mean so much to them. That is the important thing. You get so much in return in this job.* (Maria)

Anders is another person who began working in a kindergarten more or less by chance.

He now says that he enjoys the freedom and variation in his work:

> *The freedom you have, that is perhaps what I enjoy most of all. You don't have to sit at an office desk for eight hours, or do the same thing over and over. I can put on some music with the kids; we can dance. Or we can make a painting. It's a great occupation.* (Anders)

5.3.1 Getting an Education

Those who receive a trade certificate in child care and youth work will usually receive a wage increase, regulated in collective agreements. According to the interviewees, this was only one motivating factor, and maybe not the most important. The child care and youth workers often emphasised the need to show that they were skilled workers with a relevant education. Based on their accounts, the motivation to get an education can be related to increased social status and to have a stronger position in the labour market, in addition to higher wages. Also, the child care and youth workers often expressed a need to show that they did not "just work with children"; they had made a conscious effort to obtain the necessary qualifications.

Most of the child care and youth workers began working with children without having a long-term plan. After a while, it became important to them to obtain a trade certificate. The wages for child care and youth workers are regulated by collective agreements in the municipal sector. It is reasonable to assume that higher wages were a motivating factor, even if this is not always explicitly mentioned by the interviewees. What seemed to be maybe more important to the child care and youth workers than to he carpenters was the formal recognition of skills. The interviewees talked about the importance of "having an education". This became even more important when faced with the general opinion that "anyone" can work with children.

Anne said she wanted the trade certificate to show, for herself and for her own children, that she had an education. She did not "just work in a kindergarten"; she had made an effort and acquired the necessary qualifications to do a good job. She also felt that it was important to her personally to have a trade certificate. Remembering how much she had struggled when she was in school, she stated, *"To me it really matters to know that I have an education. I had such a hard time in lower secondary and in high school. But I actually succeeded in getting the trade certificate."*

Others said the trade certificate was something to "fall back on". The general impression conveyed by the child care and youth workers was that a person with a trade certificate has a stronger position in the labour market.

Kristine stated that formal qualifications are becoming increasingly important in order to get a job: *"You need to have a paper, a trade certificate, something to show. And you can also build on it later on if you wish. And these days, you need an education to get in."*

5.3.2 Learning through Work

When describing the learning process, many of the child care and youth workers compared their work-based learning with their learning experiences in school. Studying became much easier when they could relate what they read to their personal work experiences. When studying for the exam, they developed new knowledge, but they also became aware of how much they already had learned through work. One example is Hilde, who had concentration problems and dropped out of upper-secondary school. She said that, when she prepared for the child care and youth worker examination, she became aware of how much she already had learned through her work:

> *There is so much there in the theory that you don't really think about, but you do it every day. This is something I noticed when I was reading. Everything that you read about is what you do in everyday life. And I remember with the examination too, that I just merged everything, little things that we do, that's what we read about in theory.* (Hilde)

The increased awareness of what they already knew was a shared experience by many of the child care and youth workers. Maria explained that, when she read the books, she could always relate the theory to the kids she knew from her work, and that made the reading more inspiring:

> *When I read the books, everything was so understandable. So, I thought it was a really nice way to get an education. Because you have all the experience, you are not completely green and new to it, and it becomes more inspiring and you can understand more. It is not just black and white in a book, because I have never been one of those who enjoyed reading.* (Maria)

6 Discussion and Conclusion

The aim of this article was to gain a better understanding of school to work transitions in Norwegian VET. We were primarily interested in why many people in Norway obtain their formal vocational qualifications as young adults instead of following the standard educational route designed by policy makers. The analysis has been guided by earlier research on school-to-work transitions and personal trajectories, where a number of scholars have identified changes in school-to-work transitions in the last decades. In our study, we are interested in personal trajectories for young adults within the Norwegian context, which can be characterised as a universalistic transition regime (Walther, 2006).

In our material, eight of 34 persons had not completed upper secondary education before they earned a trade certificate as adults. They would all be counted as early school leavers or dropouts in the official statistics. However, none of them described themselves as dropouts. They had different reasons for leaving school, but at the time, they were all more motivated to work than to continue their education. A second group had completed upper secondary education earlier, with a general certificate. Some of these people initially entered a vocational programme, but opted for a third supplementary

year to obtain a general diploma of upper secondary education. However, when they graduated, they were not motivated to continue to higher education. Instead, they entered the labour market, but without formal vocational qualifications. A third group had completed upper secondary education earlier in another trade, but they found it was not the right occupation for them. Some experiences were related to working hours that were incompatible with starting a familiy and having small children. Others found that work in their chosen occupation became monotonous after a while and they needed change. In all cases, career decisions were based on information they did not have when they were 15 or 16 years old. A fourth group in our study consists of immigrants, most of whom had completed upper secondary education in another country before migrating to Norway and some of whom had completed higher education. They were all primarily motivated to work, but they found that their education was not recognised in the Norwegian labour market.

A common characteristic among all four groups is that the opportunity to obtain a trade certificate as adults was important, and a number of motives were identified. For child care and youth workers working in the public sector, a trade certificate in most if not all cases meant higher wages and increased job security. In addition, passing the trade examination often had positive effects in terms of higher self-esteem. Many discovered that they had learned much through work and became motivated for further education. For carpenters, the trade certificate did not necessarily lead to higher wages because they already earned wages at the same level as skilled workers. Nevertheless, they reported that the trade certificate was valued by employers and was important in terms of increased job security and more opportunities in the labour market. To both groups, the trade certificate also opened new prospects for further education.

The opportunity to formalise skills and knowledge from work-based learning was important in the adults' decision to obtain a trade certificate. This was directly, through the conscious use of an arrangement that offered a trade certificate outside of the regular school system, which, for many, made it easier to combine formal education with domestic obligations. This was also important indirectly, through the benefits of learning through work and experience. This is in accordance with earlier research on adult learners, e.g. (Knowles, 1978). Many of the participants in our study had low motivation to attend school when they were young. Thus, the chance to earn a trade certificate as a practice candidate played a crucial role in their careers. In the Norwegian transition system, the practice candidate scheme is a "second chance" measure that provides access to formal qualifications that are recognised and valued in the labour market. Such measures may be of particular importance in a universalistic regime where the general level of education is high, there is strong cultural expectation to complete a formal education, and the opportunities in the labour market for persons without a formal education are limited.

Finally, we argue that the standardised VET model in upper secondary education in Norway is based on unrealistic assumptions about school to work transitions. A significant reduction in dropout rates in a short term perspective may not be achievable and perhaps not even desirable. At the age of 15, people not only have limited information about different occupations and labour market opportunities, but they also have

vague notions about their own preferences and capabilities. The policy implication that can be drawn from our study is that policy makers need to adopt a more long-term perspective on educational attainment and school-to-work transitions. In addition, our study shows the importance of institutional structures and second chance measures that support informal learning in the workplace.

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Appendix 1

Forespørsel om deltakelse i forskningsprosjektet

"Å ta fagbrev som voksen"

Bakgrunn og formål
Formålet med forskningsprosjektet er å få mer kunnskap om personer som tar fagbrev som voksne. Vi ønsker å få vite mer om hva som motiverer folk til å ta fagbrev i voksen alder og hvilken betydning fagbrevet har hatt for dem i ettertid. Prosjektet er finansiert av Norges forskningsråd og gjennomføres av Fafo Institutt for arbeidslivs- og velferdsforskning i samarbeid med Frischsenteret.

Bakgrunnen for at vi ber deg om å delta i prosjektet er at du er en av dem som tok fagbrev i tømrerfaget eller barne- og ungdomsarbeiderfaget i Rogaland høsten 2012, og som den gangen var mellom 25 og 35 år gammel.

Hva innebærer deltakelse i studien?
Undersøkelsen består i hovedsak av intervjuer med personer som har tatt fagbrev som voksne. Spørsmålene vil blant annet handle om tidligere utdanning og arbeidserfaring, beslutningen om å ta fagbrev, om selve fagprøven, erfaringer etter fagprøven og videre planer. Intervjuene vil bli gjennomført av forskere ved Fafo i løpet av høsten 2014. Om du samtykker til å delta, vil en forsker ta kontakt med deg for å avtale tid og sted for intervju. Opplysningene som blir innhentet vil bli registrert i form av notater og eventuelt også som lydopptak.

Hva skjer med informasjonen om deg?
Alle personer som deltar er sikret anonymitet. Kun forskerne i prosjektet vil ha tilgang til opplysninger om deg. Personopplysninger vil bli lagret atskilt fra navneliste og koblingsnøkkel som knytter personnavn til innsamlede opplysninger. Deltakerne i prosjektet vil ikke kunne gjenkjennes i rapporter og artikler som publiseres fra prosjektet.

Prosjektet skal etter planen avsluttes 31.12.2016. Da vil alt datamateriale fra prosjektet bli anonymisert og eventuelle opptak fra prosjektet blir slettet.

Frivillig deltakelse
Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert. Det vil ikke få noen innvirkning på ditt forhold til arbeidsgiver eller offentlige myndigheter dersom du ikke vil delta i studien eller dersom du senere velger å trekke deg.

Seniorrådgiver Elin Svensen i Rogaland fylkeskommune vil i løpet av de nærmeste dagene ta kontakt med deg på telefon for å høre om du samtykker til å delta i prosjektet. Om du samtykker, vil forskerne få ditt navn og telefonnummer for å ta kontakt med deg for nærmere avtale.

Dersom du har spørsmål om prosjektet, ta kontakt med forsker Anna Hagen Tønder, anh@fafo.no, eller på mobil nummer 99 69 86 44.

Det er et stort behov for forskningsbasert kunnskap om voksne som tar fagbrev, og vi oppfordrer deg derfor sterkt til å delta i prosjektet.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Appendix 2

Interview guide – translated from Norwegian

People who have obtained a trade certificate as adults

1. Could you please tell us a bit about yourself?
    a. Age
    b. Place of living
    c. Family – children (number of, age)
    d. Workplace
    e. Occupation
    f. Part time/full time
    g. Work experience from other jobs
    h. Education background (schools and studies)
    i. Parents' education

2. About your time in elementary and upper secondary school
    a. How did you like going to school?
    b. Which subjects did you prefer?
    c. Which subjects did you like the least?
    d. Did you spend a lot of time doing homework?
    e. Did you have any teachers who you found especially competent? In which subjects? In which way?
    f. Did you have any periodes of work based practice/training during upper secondary school? Where, if so? How did you like these practice periods?
    g. Did you have any breaks or interruptions during high school? If so: What did you do then?
    h. When did you decide to choose this profession (carpenter/ child and youth worker)?
    i. What made you choose this particular profession?

3. About obtaining the trade certificate
    a. What was the reason why you wanted to obtain a trade certificate?
    b. How did you find out about the opportunities to take a vocational certificate as an adult?
    c. Had you ever previously thought of taking a vocational certificate? What was the reason why you didn't do it earlier?
    d. What expectations did you have for obtaining the trade certificate? Was there anything that you thought would change after you had obtaining the trade certificate?
    e. Were there other people who motivated you to obtain the trade certificate? If so, who?
    f. Did you obtain the trade certificate together with colleagues?

g. To those who have obtained the trade certificate as adult apprentices: Where did you do your apprenticeship? How did you get an apprenticeship? For how long were you an apprentice? What did you think of being an apprentice?
h. To those who have obtained the trade certificate as practice candidates: Where did you get the practical experience you needed to register for the trade examination?
i. How did you like the work you did before obtaining the trade certificate?
j. Did you learn a lot about the subject from obtaining the trade certificate? What was the most important thing you learned?

4. About the trade examination itself
    a. When did you take the theoretical part of the examination?
    b. How did you prepare for the theorical examination?
    c. What do you think about the theorical examination?
    d. When did you take the practical examination?
    e. Where was the practical examination conducted?
    f. What was the examination about?
    g. What do you think about the practical examination?
    h. To what extent do you think you were shown what you could do through the practical examination?

5. About the time after the trade examination
    a. Where have you worked after you took the trade examination?
    b. If new job: Could you have got this job if you had not had a vocational certificate?
    c. Has anything changed since you took the trade examination?
        i. Salary
        ii. Work assignments
        iii. The way you do the work
        iv. The relationship with other employees
        v. Opportunity to apply for other jobs
        vi. Confidence
        vii. Other
    d. How do you enjoy the work you do now? What aspects of the job do you like best? What aspects of the job do you like least?
    e. Could you have done the work you are doing now without the vocational certificate?
    f. What kind of background do others in your workplace have who do the same type of work as you?
    g. Do you think you get to use your skills in your job?
    h. Do you think you do a better job now than before you obtained the trade certificate?
    i. As you see it, what characterizes a highly competent worker in your profession?
    j. Do you think that you have good opportunities to develop as a skilled worker in the job you have now?
    k. Is there anything that has become different than you had imagined before you got your vocational certificate? If so, in what way?
    l. Do you now regret that you did not take the vocational certificate earlier? Or why/why not?

6. About further plans
    a. What are your future plans in working life?
    b. What do you most want to work on in the future?
    c. What do you think you will be working on in two years? In five years?
    d. Do you think you will change jobs? Maybe when?
    e. Do you think you will get more education? Why/why not? If yes, what kind, and when?
    f. Is there anything you would like to add? Is there anything I haven't asked that is important to include?