Research-based Welfare Education in the Nordics

A comparative analysis of five countries
Introduction

This is a background report developed for Nordic Research by the consultancy DAMVAD.

The study maps the flow of knowledge between research and education in the five Nordic countries.

This study is one of three background studies, also including a bibliometrical analysis and a number of case studies. These form the basis of a policy brief developing recommendations on Nordic initiatives for science basing welfare educations.

The Nordic countries are currently in the process of reforming and updating their welfare models. In the coming years, the Nordic welfare models will need continuous development to address the challenges they face.

An important area of development has been increasing use of systematic research and evidence in welfare professions.

Globally, there is currently a movement toward evidence basing welfare professions, most notably the social and health professions. Here, the role of research in the educations related to welfare professions is an important part of this development.

At the Nordic level, this raises the question of opportunities for shared Nordic initiatives in research basing welfare educations.

Empirically, the study rests on desk research on education systems in each of the five Nordic countries and interviews with legislators, research institutions and educational institutions in each country. See an overview in the appendix.

Chapter 1 summarises the Nordic welfare challenges and describe the connection between research and education. Finally, the chapter defines welfare educations as a term.

Chapters 2 to 6 maps the connection between research and welfare education in Denmark, Finland, Norway, Sweden, Iceland respectively.

Chapter 7 summarises findings across the Nordic countries.
1 Research and welfare education

This chapter summarise the Nordic welfare challenges and describe the connection between research and education. Finally, the chapter defines welfare educations as a term.

1.1 The Nordic welfare challenges

The Nordic countries are currently in the process of reforming and updating their welfare models. In the coming years, the Nordic welfare models will need continuous development to address the challenges they face.

Perhaps the most significant challenge is the demographic shift toward a growing older population. This means an increasing need for welfare services combined with a smaller working population.

Another important challenge is the medical and technological advancement. While some technologies have significant cost-saving potentials (e.g. IT), many others mean increasing net costs, e.g. new forms of treatments.

A third challenge is continuous demands for increasing quality of welfare services. Both politicians and users demand still higher quality services without increasing costs.

These challenges are shared across the Nordic countries and all five countries share the need to develop their welfare models to address them.

1.2 Research as a source of development

An important area of development has been increasing use of systematic research and evidence in welfare professions. The Campbell cooperation, systematic evaluations, impact studies and compiling user data are examples of this. At the same time, welfare services are now a well-established field of academic research in such areas a health care economy, social impact studies, etc.

Evidence-based social care

“Evidence-based social care is the conscientious, explicit and judicious use of current best evidence in making decisions regarding the welfare of those in need of social services”


These efforts have led to a much better understanding of the efficacy (what works), effectiveness (goal attainment) and efficiency (cost effectiveness) of welfare services.

It is a goal of the Nordic Council of Ministers that research-based knowledge should benefit the education of welfare professionals. Thus, this study investigates the use of research in the education of welfare professionals in the Nordic countries.

This goal should be seen pragmatically, as a means to an end. Welfare educations should not be based on research for their own sake. Nor should all education necessarily be based on research. This should be done where concrete benefits for educations and for researchers are likely to materialise. Figure 1.1 below illustrate the reasoning:
As shown above, the relationship between research, education and services is characterised by both push (supply) and pull (demand).

1.3 Links between research and education

The following lays the groundwork for understanding how research is spread, how research enters education and how research is utilised.

1.3.1 Strategies for spreading research

Studies into how research is spread shows that there can a long way from the creation of a new research result to its practical application. In some cases, new research-based knowledge may never reach practitioners and research is conducted in a disconnected system altogether. Following Nutley (2012), we distinguish between five strategies for spreading research to educators, students and practitioners:

**Dissemination**, where research is communicated to educators, students and practitioners by circulating results. This can happen through e.g. journal articles, publications, textbooks, resource websites etc.

**Interaction**, where research is spread through two-way cooperation between researchers on the one hand and educators, students and practitioners on the other. Examples of this includes researcher-practitioner networks, knowledge centres, etc.

**Social influence**, where research is spread through influential others, such as colleagues, ambassadors, champions or other kinds of resource persons spearheading the use of research among educators, students and practitioners.

**Facilitation**, where the uptake of research among educators, students and practitioners is encouraged by increasing the capability of users to understand and use research.

**Incentives**, where positive or negative reinforcements are implemented to encourage the uptake of the latest research into practice.

1.3.2 Research as part of education

Research can form part of welfare educations in several ways. Here, we make the distinction between three ways:

**Organisational overlaps**, to the extent that research and educational institutions are the same rather than separate.

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1 See e.g. S. W. Fraser & P. Plsek, (2013) “Translating evidence into practice: can it be done through the process of spread?” Education in Primary Care, May 2003
Personnel overlaps, to the extent that teachers are also practicing researchers, rather than separate personnel.

Curriculum overlaps, to the extent that research and research methodology is part of the educational curriculum.

1.3.3 Utilisation of research
In this study, we make the distinction between several ways in which research can be used, based on Nutley (2012):

Instrumental use, where research exercises direct influence on decisions or their basis.

Conceptual use, where research is used in broader and more subtle ways through which the knowledge, understanding and attitudes.

Process use, were practitioners participate in and influence the research process.

1.4 Making relations to research observable

This study must necessarily simplify its approach to these complex relations, making the relations between research and education observable and comparable at the level of five countries.

Based on Nutley (2012), this study therefore adopts a simpler cumulative classification of relations research and education. As shown in figure 1.2 below:

**FIGURE 1.2**
Classification of relations between education and research

Indirect connection to research

The institution performs relevant research itself...

And research methods are part of the education.

And main teachers are practicing researchers...

Source: DAMVAD 2015

In ascending order, these are, as follows:

Indirect connection to research, for educations not directly related to active researchers, research methods or the results of research. Indirectly, research may indirectly (and likely do) underpin textbooks or some topics covered in these educations.

The institution performs relevant research itself, for educations offered at institutions, which perform research in fields relevant to the education. However, researchers, research activities or research results are not connected to educational activities.

And main teachers are practicing researchers, for educations offered at institutions performing relevant research, where the main (but not necessarily all) teachers are practicing researchers.

And research methods are part of the education, for educations in the above categories that in addition to this include research methods as part of the education.
1.5 Comparing educational levels

This study adopts the European Qualification Framework (EQF) for making international comparisons between educational levels.

The EQF-framework is already implemented in the Nordic countries, (or are in the process being implemented in the case of Sweden).

This study includes welfare educations at EQF 4 to 7. This range includes educations from two-year vocational educations to master’s degrees. Table 1.3 gives an overview of the EQF-levels included.

1.6 Defining welfare educations

There is no official definition of welfare educations. However, the guiding principle for the educations included in this study is that they are affected by the challenges posed to the welfare systems of the Nordic countries, described earlier.

In brief, we define welfare educations related to social- and health professions of professions with personal contact with citizens. This definition is illustrated in figure 1.5. As shown, we define welfare educations as the overlapping areas defined by A + B + C.

<table>
<thead>
<tr>
<th>TABLE 1.3</th>
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<table>
<thead>
<tr>
<th>Descriptors defining levels in the European Qualifications Framework (EQF)</th>
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<tbody>
<tr>
<td><strong>EQF-level</strong></td>
</tr>
<tr>
<td><strong>Level 4</strong></td>
</tr>
<tr>
<td><strong>Level 5</strong></td>
</tr>
<tr>
<td><strong>Level 6</strong></td>
</tr>
<tr>
<td><strong>Level 7</strong></td>
</tr>
</tbody>
</table>

In addition to these topical and functional delimitations, the educations included in this study will focus on educations of a duration of between two and six years (European Qualification Framework levels 4-7).

This definition is roughly in line with earlier studies in the field.

1.6.1 Exclusions and grey zones

In choosing this definition, we necessarily exclude educations:

- Not related to welfare (e.g. sports and physical education)
- With only indirect contact with citizens (e.g. bioanalysts)
- Educations of longer or shorter duration than EQF 7 and EQF 4, respectively
- The educational sector (teachers and educational research)

These limitations are exemplified in table 1.6 below:

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**TABLE 1.6**
Examples: Delimiting welfare educations

<table>
<thead>
<tr>
<th>EQF</th>
<th>Indirect citizen contact</th>
<th>Social and health education</th>
<th>Indirect citizen contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Law, Sociology, Politi-</td>
<td>Candidate in social work</td>
<td>Psychologist, Candidate</td>
</tr>
<tr>
<td></td>
<td>cal science</td>
<td></td>
<td>in Nursing, Chiropractor,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Medicine, Odontology</td>
</tr>
<tr>
<td>6</td>
<td>Public administra-</td>
<td>Social work</td>
<td>Psychomotor Therapist,</td>
</tr>
<tr>
<td></td>
<td>tion</td>
<td>Pedagogy</td>
<td>Hygienist, Bioanalyst,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Orthopaedic Engineer,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Physiotherapist, Midwife,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Radiography, Nursing</td>
</tr>
<tr>
<td>5</td>
<td>Administration</td>
<td>Pedagogy assistant</td>
<td>Psychologisk assistent,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Social og sundhedsassistent, tandklinik-Assistent</td>
</tr>
<tr>
<td>4</td>
<td>Pedagogy assistant</td>
<td>Hospitalsteknik assistent,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Social og sundhedsassistent, tandklinik-Assistent</td>
</tr>
</tbody>
</table>

Source: DAMVAD 2013

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2 Welfare research and education in Denmark

This chapter describes the connection between research and welfare education in Denmark.

2.1 The educational landscape

The welfare educations in Denmark can be clustered in four groups according to their EQF-levels: Vocational educations (EQF 4), academy profession degrees (AP degrees) (EQF 5), professional bachelor degrees (EQF 6) and master’s degrees (EQF 7). In addition, there are numerous adult and continuing educations. Figure 2.1 below gives an overview of the welfare educations and their respective levels.

As shown, the main part of the welfare educations are professional bachelor’s degrees or adult- and continuing educations.

Equivalent to the four levels of educations, four kinds of educational institutions exist:

Vocational schools, business academies, university colleges and universities. The institutions typically...
provide educations at their own level (e.g. vocational schools provide vocational educations, university colleges provide professional bachelor degrees etc.).

However, institutions can get permission to provide educations at other levels (e.g. university colleges provide some AP degrees), although it is not widespread. The institutions are under the oversight of Danmarks Akkrediteringsinstitution, (the accreditation institution), who assess whether the institutions meet a set of criteria for each educational level dealing with the quality of the education, including the institution’s knowledge base and their professional environment. The Accreditation Council (akkrediteringsrådet) can demand that a given institution take concrete initiatives, if the assessment shows insufficient quality given its level of education.

### 2.2 The connection to research

Figure 2.2 below gives an overview of the institutions that provide welfare educations in Denmark.
the extent to which they are based on relevant research\textsuperscript{3}.

As shown, a large part of the welfare educations (both regular and adult and continuing educations) are provided by the university colleges who play an important role in securing the flow of knowledge from research through education and into practical welfare educations.

University colleges, however, have only received funding and carried out research since 2013\textsuperscript{4}. (The same applies to the business academies, but the number of welfare educations provided by these institutions is limited, and therefore not examined further here).

Before 2013, the welfare educations at the university colleges primarily had an indirect connection to research, as they were based on knowledge from research but did not conduct research themselves.

They have now begun building up in-house research capacity and include teachers in research projects as well as performing research themselves. However, this transition is still in an early phase, and the university colleges are facing a significant challenge of building up professional and sustainable research environments and securing the flow of knowledge from research to education\textsuperscript{5}.

Among the issues they are dealing with, is a lack of experience in conducting research exemplified by a deficit in teachers with research qualifications. To meet this challenge, the university colleges have formulated a joint “PhD strategy” for 2022. The main purpose of the strategy is to increase the number of PhDs among the teaching personnel, and the end goal is that 50 pct. of the teaching personnel has a PhD by 2022.

However, a DAMVAD-report from 2014 concludes that there will be a lack of between 900 and 1,300 relevant PhDs in 2022, which underscore the extent of this challenge\textsuperscript{6}. The university colleges have chosen different organizational setups for their research activities. Some university colleges have established research groups – not directly connected to the educational activities – with the purpose of achieving critical mass in research capacity as fast as possible. Others (Metropol) have chosen a structure, where all researchers are directly associated with educational activities. The long-term consequences of these two strategies for research-basing welfare educations remains are not yet clear.

The research communities at the universities are significantly more mature than at the university colleges, but the amount of well-developed basic research environments relevant to welfare educations at lower levels than master’s degrees is limited.

Thus, there is in general a lack of mature research environments in Denmark within a number of the large welfare professions such as occupational therapy, radiography, nursing, midwifery and social education\textsuperscript{7}. This is especially the case when compared to Sweden and Norway, where research in the welfare professions is more common and thus more developed. Thus, the flow of knowledge from research to the educations in Denmark is still developing, which makes the ongoing work at the university colleges even more important, but also more challenging.

\textsuperscript{3} The figure is based on interviews with the providing institutions.

\textsuperscript{4} Retsinformation (2015)

\textsuperscript{5} Associate Dean at Metropol.

\textsuperscript{6} DAMVAD (2014)

\textsuperscript{7} Interview with Head of R&D at University College Nord.
In some cases, the university colleges have had to send their teachers to Norway and Sweden for further education, since there were no institutions in Denmark capable of educating at the desired level, not least because the university colleges are not allowed to educate candidates or PhDs themselves.8

Even when the universities conduct research relevant to welfare professions, the structure of the education system does not seem to facilitate the flow of knowledge from universities to lower educational levels. As an example, University of Southern Denmark provides a Master’s degree in physiotherapy and conduct research within the subject area, while a number of university colleges provide a professional bachelor degree in physiotherapy. Even though the connection between the two educations seems obvious, the research at the university only canalizes indirectly to the university colleges. There is no formalized knowledge exchange between the two institutions (e.g. staff from the university teaching at the university colleges), but candidates in physiotherapy happen to be recruited as teachers at the university colleges later.9

This illustrates an existing gap between the institutions at different levels of the education system. The cooperation between the universities and the university colleges moreover seem to be troubled, since the institutions compete for the same students.

When it comes to vocational educations, these are only indirectly related to research, since the vocational schools do not conduct any research themselves. They are obliged to educate based on the latest knowledge within the subject area, which they meet by sending their teachers (typically practitioners) continuously on courses etc.10

2.3 Research needs

Even though the vocational educations are not closely based on research, there does not appear to be a need for it. According to the association of the vocational schools (Danske Erhvervsskoler), the structure of the vocational educations automatically secures that the educations draw upon the latest knowledge. This is because so-called academic committees (faglige udvalg) with members from the employers and the employees within a given education decide the content of the education. This way of planning the educations ensure, that the education is based on the latest knowledge from the labor market. The research needs are satisfied this way, since the vocational educations to a very large degree are practice-oriented, and thus do not need actual research.

As mentioned in the section above, the university colleges have only recently begun systematic work of building research communities. Thus, there is in general a lack of well-developed research environments to base the professional bachelor’s degrees on. According to the chair of the Research and Innovation Committee at Danske Professionshøjskoler, the benefit of developing these research environments is high in terms of improved quality and efficiency, since an understanding of research and evidence allow personnel to use experiences from practice to improve their work.

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8 Ibid.
9 Interview with Head of Study at Physiotherapy at University of Southern Denmark.
10 Retsinformation (2015b)
However, the university colleges experience a number of barriers in their work of improving the education’s connection to research. First, Danmarks Professionshøjskoler point out that there is a lack of well-developed research environments within the field in Denmark, which troubles the recruitment of researchers to the university colleges. Second, the university colleges are not able to offer professorships to qualified researchers, which also challenges the recruitment process. Third, there is a lack of organizational, cultural and administrative capacity required to support the research environments.

To overcome some of these barriers, there is a potential for the university colleges in an increased exchange of experiences with the Danish universities and with university colleges from other Nordic countries, especially when it comes to developing the capacity at the university colleges. Since 2013 where the university colleges have carried out their own research, the extent of collaboration with the universities have increased. However, according to Danske Professionshøjskoler there is still an unrealized potential. The chair of University of Copenhagen’s committee on collaboration with the university colleges, point at the funding system of the universities’ research as a potential barrier for further cooperation. The universities receive parts of their research funds based on their score on a bibliometric science indicator. Because the research results of universities’ collaboration with the university colleges rarely publish in international peer review journals, the collaboration will not help the university in getting a better score at the indicator and thus not help them in increasing their share of the research funds. In addition, when it comes to the Nordic university colleges, there is an unrealized potential since the University Colleges report that the existing collaborations are primarily based on personal contacts and thus not systematically organized in strategic collaborations.
This chapter describes the connection between research and welfare education in Finland.

### 3.1 The Educational Landscape

The Finnish educational system offers welfare educations at EQF-levels 4-7\(^{11}\). These are summarised in figure 3.1 below.

Universities of applied science and regular universities both educate at EQF-level 6-7 but they have quite different permissions concerning education. The universities of applied science offer bachelor – and master-degree educations leading to professions, but are not permitted to provide doctoral degrees.

However, it is only possible to achieve a master’s degree at universities of applied science after three years of working experience\(^{12}\). They are municipal or private institutions authorised by the government\(^{13}\). Universities are independent corporations under public law or foundations under private law, and provide general academic educations and doctoral degrees.

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**FIGURE 3.1**

Welfare educations in Finland at EQF 4 to 7

<table>
<thead>
<tr>
<th>University master’s degree (EQF 7)</th>
<th>Social work</th>
<th>Developmental Psychology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odontology</td>
<td>Psychology</td>
<td>Medicine</td>
</tr>
<tr>
<td>Psychology</td>
<td>Social work</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University of applied science master’s degree (EQF 7)</th>
<th>Social work</th>
<th>Health Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation Leader</td>
<td>Social work</td>
<td>Professional Therapy</td>
</tr>
<tr>
<td>Midwife</td>
<td></td>
<td>Social work</td>
</tr>
<tr>
<td>Nurse</td>
<td></td>
<td>Social service</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td></td>
<td>Social service</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td></td>
<td>Social service</td>
</tr>
<tr>
<td>Podiatry</td>
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<td>Social service</td>
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<tr>
<td>Physiotherapy</td>
<td></td>
<td>Social service</td>
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<tr>
<td>Optometry</td>
<td></td>
<td>Social service</td>
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<tr>
<td>Assistive Device Technician</td>
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<td>Social service</td>
</tr>
<tr>
<td>General Practitioner</td>
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<td>Social service</td>
</tr>
<tr>
<td>Foot and Ankle Therapy</td>
<td></td>
<td>Social service</td>
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<tr>
<td>Dental Hygienist</td>
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<td>Social service</td>
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<tr>
<td>Social care</td>
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<td>Social service</td>
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<tr>
<td>Elder care</td>
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<td>Social service</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>University bachelor’s degree (EQF 6)</th>
<th>Psychology</th>
<th>Social work and Social Politics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy</td>
<td>Psychology</td>
<td>Social work and Social Politics</td>
</tr>
<tr>
<td>Health Science</td>
<td>Psychology</td>
<td>Social work and Social Politics</td>
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<tr>
<td>Social Work</td>
<td>Social work</td>
<td>Social work and Social Politics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University of applied science bachelor’s degree (EQF 6)</th>
<th>Midwife</th>
<th>Health Science</th>
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</thead>
<tbody>
<tr>
<td>Basic Police Education (police officer)</td>
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<tr>
<td>Nurse</td>
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<tr>
<td>Social Work</td>
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<tr>
<td>Physiotherapist</td>
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<tr>
<td>Occupational Therapy</td>
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<tr>
<td>X-Ray Nurse</td>
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<tr>
<td>Geriatrician</td>
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<tr>
<td>Oral care</td>
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<tr>
<td>Hand care</td>
<td></td>
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<tr>
<td>Oral care</td>
<td></td>
<td></td>
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<tr>
<td>First Caregiver (paramedic)</td>
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<tr>
<td>Dental Hygienist</td>
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<td>Social care</td>
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<tr>
<td>Elder care</td>
<td></td>
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<tr>
<td>Social work</td>
<td></td>
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</tr>
</tbody>
</table>

Source: DAMVAD 2015

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\(^{11}\) Finnish National Board of Education (2015)

\(^{12}\) Ministry of Culture and Education (2015b)

\(^{13}\) Ministry of Culture and Education (2015)
They are not allowed to provide educations within the professional field\textsuperscript{14} with the exception of professional postgraduate degrees\textsuperscript{15}. Instead, universities are to promote free research and scientific and artistic education. This is why the list of relevant welfare educations with following direct citizen contact is so small for universities.

Universities also offer fee-charging continuing education and Open University instruction but those courses in themselves do not lead to qualifications.

Concerning specialization, it is intended for the professionals within a field (e.g. nurses) to get a master’s degree and then, later on, take specializing courses at a university of applied science paid by their employees but The Ministry of Education and Culture are in the working process to raise state funding for specializing courses. At the same time some fields offer very specialized educations, e.g. within rehabilitation, but the employees need better understanding of the differences and exact meanings for each specialization.

As one of the newest changes to the Finnish educational landscape The National Police Academy now provide both a bachelor’s and master’s degree in police work. This initiative was implemented in the autumn of 2014 and therefore the first generation of students from the reformed police education yet has to graduate\textsuperscript{16}. The education for police is now considered an equal to the educations provided by universities of applied science.

The Ministry of Education and Culture is responsible for the vocational educations in Finland but there is a wide range of providers of vocational educations: local authorities, municipal training consortiums, foundations or other registered associations, or state companies\textsuperscript{17}.

The vocational schools educate at EQF-level 4 and partly support the independent adult specialized vocational exam at EQF-level 5. About half of the educations for welfare work in Finland are provided at these levels and the educations are more specialized than what is the case for the higher educations.

In addition, strong individualization of the vocational educations is worth mentioning. There are three levels of vocational education: the basic vocational education (yrkesinriktade grunexamen), vocational exam (yrkesexamen) and specialized vocational exam (specialiseret yrkesexamen)\textsuperscript{18}. The basic vocational education is an opportunity for all who have completed compulsory school and takes approximately three years to complete. After three and five years’ experience in a relevant field, respectively, it is possible to go to the vocational or specialized vocational exam. None of these two presupposes going back to school since it is possible to take the exam directly.

After completing a specialized vocational exam, it is possible to study further at a university of applied science or university. In other words, the individual’s working experience means quite a lot in Finland, which also give opportunity to alternative ways to higher educations\textsuperscript{19}.

\textsuperscript{14} Ministry of Education and Culture (2015c)
\textsuperscript{15} Universities Act (558/2009)
\textsuperscript{16} Polisögskolan: Reform av Polisutbildningen 2014
\textsuperscript{17} Ministry of Education and Culture (2015d)
\textsuperscript{18} Ministry of Education and Culture (2015e)
\textsuperscript{19} Utbildningsstyrelsen (2015)
3.2 The connection to research

Figure 3.2 below gives an overview of the institutions that provide welfare educations in Finland, and to what extent they are based on relevant research. The differences between universities of applied science and universities do not only concern what kind of educations they each provide. As mentioned above universities of applied science do not provide doctoral degrees but it is expected that the leading teachers have a doctoral degree.

<table>
<thead>
<tr>
<th>ECF 7</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQF 6</td>
<td>Police Academy*</td>
</tr>
<tr>
<td>EQF 5</td>
<td>University of applied science*</td>
</tr>
<tr>
<td>EQF 4</td>
<td>Specialized Independent Education (Adult)</td>
</tr>
<tr>
<td>EQF 3</td>
<td>Vocational Schools</td>
</tr>
<tr>
<td>EQF 2</td>
<td>Indirect connection to research</td>
</tr>
<tr>
<td>EQF 1</td>
<td>And main teachers are practicing researchers</td>
</tr>
<tr>
<td>EQF 0</td>
<td>And research methods are part of the education</td>
</tr>
</tbody>
</table>

Source: DAMVAD 2015

Note: * Educational institutions provide educations where research methods are a part of the curriculum but main teachers are not necessarily practicing researchers (Universities of applied science and The National Police Academy)
This means that teachers at universities of applied science either have a doctoral degree from a university in Finland or another country or at least gets a specialization within research. However, it is not all teachers that have research experience since teachers in basic practice-related subjects are not expected to have education above a master’s degree and three years working experience.

Universities of applied science were given research responsibility in 2004 but it was not until 2011 their economy was reformed to accommodate research responsibilities and it still differs how much state funding the universities of applied science receive. Most research funding come from local companies and alike. Their research responsibilities primarily relates to the needs of business and industry and are usually linked to the structure and development of the regional economy. The universities of applied science value their conducted research highly due to the very close connection to local contexts and practice; a connection that secures that research on e.g. best practice actually finds its way into the education of new students. This is partly because teachers are involved in e.g. research surveys and the students they are teaching later writes thesis based upon the research.

However, development within the research responsibilities of universities of applied science aims for interaction between research and education and increased networking between polytechnics, universities and research institutes. In summary, there is a still greater focus on the research milieu of universities of applied science from the Finnish government and the Finnish government supervise how much each university of applied science conduct research.

At universities, teachers are expected to practice research and research methods are a part of both the bachelor’s degree and master’s degree. On the contrary, the universities of applied science universities’ purpose is to provide educations based upon conducted research. The universities are the providers of the basic academic general research knowledge where universities of applied science use this basic knowledge in specific practice contexts.

As mentioned above The National Police Academy reformed the education for police in the autumn of 2014. This was partly an opportunity because of the institutions’ already established connection to research since there has been researchers employed to do research the last 25 years though these researchers are not educated within policing but within general academic fields e.g. sociology. Research methods are now a part of the education even though the teachers are mainly only teachers and researchers only mainly researchers. It is expected though that the divide between research and teaching in the education will decrease over the coming years. The hope for the future with the implementation of research methods into the education is that some police students will be part of the research area of policing and therefore a new generation of police educated researchers will emerge.

3.3 Research needs

Staying with the National Police Academy as an example of a recently research based welfare education; it has its challenges concerning the educational

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20 Ministry of Education and Culture (2015f)

21 Ministry of Education and Culture (2015g)
reform and the wish to attract new researchers. Firstly, students at the academy are younger now than before because the education for police is now regulated as a university education. In other words, it is no longer possible to receive a salary for studying policing, the students instead receive a smaller student benefit from the state, and therefore it is more difficult for adults to study policing.

Combined with the wish to attract new researchers a current senior researcher at The National Police Academy see some challenges since the people attracted to the police education are more interested in direct citizen contact and practicing police work than research. As he sees it, it would be an advantage for both the attraction of new researchers and for the relevance of the conducted research to be more communicated into practice. As he puts it, actually no one within the police force reads the research papers conducted at the academy also because of the language barrier since all papers are written in English.

Despite these challenges, it is worth mentioning that even the fact that researchers are employed at The National Police Academy and that the education for police is now equivalent to other university-degrees are a significant step toward research basing the education.

Concerning the universities of applied science, who are not allowed to provide doctoral degrees; it seems like too much of a cost to provide both doctoral degrees at universities of applied science and universities. This might also be explained by the fact that a lot of universities of applied science and universities collaborate and even share e.g. campus’, libraries and so on. Also worth mentioning is that it is not unlikely for a teacher at a university of applied science to be recruited by a university to become professor.

Instead, the government calls for more cross-field research within health care relevant to both practitioners and academia.

Finally, an interesting point concerning the Finnish educational system is the level of individualization and the possibility for vocational educated graduates to get academic degrees later on in life. Held together with the demand for researchers educated within a relevant field and the overall challenges concerning the relationship between practice and research it seems like a structural possibility actually to get researchers with practice experience.
This chapter describes the connection between research and welfare education in Norway.

4.1 The educational landscape

The educating institutions in Norway provide a number of welfare educations between EQF 4 and 7 as depicted in figure 4.1.

![Welfare educations in Norway at EQF 4 to 7](image)

The vocational schools provide vocational programs (EQF 4) and tertiary vocational programs (EQF 5), while the higher education institutions (university colleges, specialized university colleges and universities) provide bachelor’s degrees (EQF 6) and master’s degrees (EQF 7). A bachelor’s degree is followed by a master’s degree, though not necessarily immediately after. Hence, a bachelor in, for example, nursing can later add a master in nursing.
etc. In addition to these formally qualifying educations, university colleges and universities provide a numerous further and continuing educations (such as specialization in nursing) that do not give any formal qualifications equivalent to an EQF-level.

The Norwegian Agency for Quality Assurance in Education (NOKUT) decides the institutions’ level of accreditation under the jurisdiction of the Ministry of Education and Research. The distinction between university colleges, specialized university colleges and universities is based on the institutions’ accreditation to provide a certain level of education. However, university colleges can seek permission to provide any specific master’s or doctoral degree. Specialized university colleges are by definition accredited to provide master’s and doctoral degrees within their specific academic field, and can further seek permission to provide master’s and doctoral degrees in fields outside their core competences. Finally, universities are permitted to provide educations at any level within any academic field.

This accreditation system gives the institutions a significant degree of freedom to influence and change what educations they provide. Thus, talking about university educations or university college educations does not make much sense, since it is very common that university colleges provide masters’ and doctoral degrees, while universities provide professional bachelor’s degrees etc. Furthermore, the institutions have the possibility to get a permanent higher accreditation, e.g. a university college can be “upgraded” to a specialized university etc. The current system is a result of a policy development during the 1990’s and 2000’s towards a more decentralized educational sector, which culminated with the so-called Quality Reform in 2003, where the current accreditation system was established.

Summarizing the Norwegian educational landscape, there is no clean cut between the institutions who provide the different levels of welfare education. However, it is possible to make one clear distinction between vocational schools and higher education institutions.

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22 NOKUT
23 Lovdata (2015a)
24 Ibid.
25 NOKUT (2013); NOKUT (2012)
4.2 The connection to research

Likewise, when it comes to research does it make much sense to distinguish between research conducted by the university colleges and research conducted by the universities. This is because all institutions of higher education since the Quality Reform of 2003 are required to conduct research (cf. the accreditation act)\textsuperscript{26}. Thus, the research environments are quite mature at all levels. According to the director of the Norwegian Agency for Quality Assurance in Education (NOKUT), the possibility for the university colleges to reach a permanent higher accreditation have contributed to the development of the strong research environments\textsuperscript{27}.

The only formal difference between the research conducted at university colleges and universities is that the university colleges have a special responsibility for conducting research oriented towards the professions, while the universities have a special responsibility for conducting basic research. However,
this does not mean that the universities only conduct basic research or vice versa.

The accreditation act further specifies that the research activities at all higher education institutions shall be conducted in interaction with the education activities. Thus, the welfare educations from EQF level six and upwards are by law enforced to be research based.

The welfare educations leading to a bachelor’s degree are based on research since a significant share of the teachers are practicing researchers. This is the case whether a university or a university college provides the education. Both bachelor’s and master’s degree, contain teaching in research methods. As a concluding comment, differences in the degree to which the educations are research based, is not dependent on the providing institution (university college or university) but on the level of the education itself (bachelor’s or master’s degree), since the research environments are well-developed at all higher educating institutions.

Basic vocational programs and tertiary vocational programs are educations with a close connection to the labour market and are thus not theoretically or academic educations. The teachers at the educations are practitioners and the vocational schools do not conduct research themselves.

### 4.3 Research needs

As described above, both bachelor’s and master’s degree at the higher education institution are in general closely connected to research. The ambition is that any education connects closely to a well-developed research environment. However, slight differences between the educations and their research environments exist. There is differences between the scopes of the institutions’ research environments because of their different sizes. Some institutions provide educations for hundreds of nurses, while other only educate thirty. Consequently, the research environments at smaller educating institutions are subject to a lack of resources and research personnel. To overcome this challenge, there exist formal networks between educating institutions around Norway, which allow local and small institutions to exist, without compromising their connection to research.

Since the educations in general connects closely to research, the issue in Norway is not primarily, how to increase the education’s connection to research, but rather whether the educational system are educating too many students with an academic degree. The four largest employers’ organizations are worried that there will be a lack of skilled labour in the future, since the vocational educations are not able to attract students who instead choose educations at universities or university colleges, often not relevant to the labour market.

However, according to the general secretary of The Norwegian Association of Higher Education Institutions, the debate does not concern whether the higher educations are connected too closely to research. It is rather an issue connected to the vocational schools and their attractiveness and thus a separate discussion. A close connection to research at higher educations and an increased number of skilled labour are not mutually exclusive. The solution lies in a reduction of the number of dropouts from the vocational educations. Thus, according to

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28 Lovdata (2015b)

29 Aftenposten (2014)
The Norwegian Association of Higher Education Institutions, a close connection to research at the higher institutions are still necessary since it prepares the students to be more flexible, innovative and adaptable, which is required abilities at today’s labour market. The ongoing technological development necessitates analytical strength and problem solving skills, since the personnel in the welfare professions are obliged to adapt to new roles and tasks.
This chapter describes the connection between research and welfare education in Sweden.

### 5.1 The Educational Landscape

Two clusters characterize the welfare education in Sweden. The concerned educations are either located at the higher academic institutions or at institutions with solely an indirect connection to research.

It is in general difficult to give a precise EQF-label of the different Swedish educations since Sweden is still in the process of defining the different educations’ EQF-level[30]. The grouping of institutions by EQF level, as seen in Figure 5.2, have therefore been performed in collaboration with representatives from the various relevant administrations and ministries.

The Swedish education system offers welfare educations at all relevant EQF levels; primarily within five different institutional levels, including Comprehensive Colleges, Alternative Colleges (Folkhögskolan), Higher Vocational Educations (Yrkeshögskolan), and Comprehensive College (EQF 4-7).

#### FIGURE 5.1
Welfare educations in Sweden at EQF 4 to 7

- **University master’s degree (EQF 7)**
  - Occupational Therapy
  - Health Science
  - Social Worker
  - Dental Surgery
  - Midwifery
  - Disability Research
  - Radiography
  - Substance Abuse & Addiction Science

- **University magister’s degree (EQF 7)**
  - Occupational Therapy
  - Health Science
  - Social Worker
  - Speech and Language Pathology
  - Specialist Nursing
  - Art Therapy
  - Gerontology
  - Disability Research
  - Health Care Pedagogy
  - Social Psychiatric Care
  - Social Work[**]

- **University bachelor’s degree (EQF 6)**
  - Occupational Therapy
  - Health Science
  - Farmaceut
  - Social Worker
  - Physiotherapist
  - Health and Rehabilitation in Worklife
  - Prosthetics and Orthotics
  - Solitude Pedagogy
  - Youth and Drugabuser Care
  - Police Education[†]

- **Higher Vocational Education (EQF 4-6)**
  - EMTs
  - Integrationpedagogue
  - Visual Rehabilitation
  - Medical foottherapist
  - Supportpedagogue
  - Pharmacy Technician
  - Social/Health care Assistant
  - Specialist Assistant Nursing
  - Orthopedic Technician
  - Special supportpedagogue

- **Alternative college (Folkhögskolan) (EQF 4)**
  - Social/Health care Pedagogue
  - Personal Assistant
  - Social Pedagogue

- **Comprehensive College (EQF 4)**
  - Health Care Programme

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Source: DAMVAD 2015

Note: * Ranked alongside university degrees, but is not a decided bachelor’s degree
Among the higher academic institutions are universities and the so-called Högskolor that both qualify as higher academic educational institutions. Högskolor are sometimes referred to as University Colleges in Sweden, which can be misleading in international comparison, as these institutions to a high degree are ranked among universities. Thus, they are more research intensive than University Colleges in other Nordic countries.

Although there is a formal distinction between a Swedish university and university college, the name of the higher education institution may not always indicate whether it is a university or a university college. Thus, some university colleges call themselves 'universities' in English and, conversely, some universities are called högskolor in Swedish, even though they have university status. There are furthermore several of the relevant welfare educations that are offered at both universities and university colleges. Here, we group degrees within universities and university colleges under the same label of universities.

There are some differences to take into account though, such as the fact that universities enjoy the unrestricted right to award master, licentiate and PhD degrees, while university colleges have restricted rights. Most university colleges do not award PhDs. However, the Swedish Higher Education Authority can decide, on application from a university college, whether it should be permitted to grant third-cycle degrees. University Colleges that have been granted such rights by the Swedish Higher Education Authority are often specialized within specific fields of study, since many Högskolor are smaller institutions than the ordinary universities.

Opposite the higher academic educations, there are educational tracks within higher vocational education. This primarily refers to Yrkeshögskolan that administrates vocational educations taking place at different educational institutions. Yrkeshögskolan are not in itself an educational institution, but functions as an administrative unit for higher vocational educations. Yrkeshögskolan emerged from the fact that Sweden until the late 00’s had a large amount of vocational educations offered at various places. This also means that many educations provided by Yrkeshögskolan overlaps with educations from alternative colleges and comprehensive colleges, since there are not strict formalities of the affiliation of certain educations. There are thus four welfare educations that overlaps with educations at alternative colleges.

The diverse selection of vocational welfare educations provided by Yrkeshögskolan are generally striving to have close connections to the labour market. The Swedish National Agency for Higher Vocational Education therefore systematically evaluates educations to secure that the educations comply with the needs of the labour market.

The comprehensive college programs in Sweden was restructured in 2011, which means that there are still limited experience with the outcome of these programs. There are eighteen national programs.
year education) six of which are characterized as preparation for university college programs, and twelve are meant to open the possibility of specialising within a field with a view to further education or being employed directly on after the program. The health care program are among the programs that aim to give students the opportunity to enter the job market after graduation\textsuperscript{36}.

5.2 The connection to research

Figure 5.2 below gives an overview of the institutions that provide welfare educations in Sweden, and to what extent they are based on relevant research.

All university educations are positioned in the most research-based category, but it is an important notion that not all educations are equally close to research as it varies according to the prioritization between practical and academic skills. However, all educations at the concerned level are practicing research methods to some degree.

\textsuperscript{36} Skolverket (2015)
Bachelor degrees are generally assessed as EQF 6, while master degrees (including Master of Arts) are indexed at EQF 7.

Higher Vocational institutions are not assigned to strict regulative boundaries. The diversity of institutions in this category can therefore vary, but are generally only having indirect contact to research.

A general impression that becomes evident in figure 5.2 is the division between university degrees and educations at higher vocational educations, alternative colleges, and comprehensive colleges in terms of their connection to research. Thus, there are two main clusters; one within a research-intensive environment and environments and one, which emphasizes a strong connection to the labour market.

Both universities and university colleges have research responsibilities and the institutions generally seek to have a strong connection to research as a natural part of their structure. On the other hand, higher vocational education primarily strives to be a response to labour market needs.

Hence, Yrkeshögskolan is not an educational institution and has no research responsibility. The main purpose of the vocational educations provided by Yrkeshögskolan is therefore to lead to at least one specific job title with the “experience of producing goods and services” as the primary source of knowledge.

It therefore seems that there is a gap between the higher vocational education, alternative colleges and comprehensive colleges that are indirect connected to research and the educations provided by universities and university colleges, which both have research responsibilities and research methods as a part of the educational program.

The structure of higher vocational educations is furthermore a significant characteristic, since it covers a wide variety of educations and is not a conventional education institution. These educations are ranked between EQF 4-6 on the basis of recommendations from representatives at the Swedish National Agency for Higher Vocational Education. An administrative umbrella as Yrkeshögskolan is thus a hybrid structure that aligns educations rather than building a uniform structure. This means that individual education institutions have a rather loose framework, which allows differentiation.

The structure of alternative colleges can be described in line with this. There are approximately 150 alternative colleges that both offers general courses and more specialized programs as Social/Health Care Pedagogue and Social Worker. The selection of educations vary at each alternative college though.

It is the impression that these educations generally does not urge to expand their research-intensive, since it emphasized that they see themselves as an alternative hereof and focus on the labour market relevance instead.

In general, there is a wide selection of educational specializations at both universities, university colleges and higher vocational educations. Educational specialization refer to the direct educated specialization within a given field. These educations are thus not determined by working experience within the field (e.g. specialized nurses).

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37 Jf. mail fra Peter Gates, Myndigheten for Yrkeshögskolan
38 Studentum.se (2015)
5.3 Research needs

A general tendency within the welfare field in Sweden is that there is a shortage of qualified personnel, especially doctors, nurses, dentists, and clinical assistants. The labour shortage is grounded in the fact that there are too few who takes a welfare education, and that large generations are about to retire. Thus, figures from Statistics Sweden (Statistiska Centralbyrån) shows an expected lack of around 150,000 welfare professionals in health care in 2030.

There have been several initiatives aiming to improve the attractiveness of welfare professions and establishing more studentships within selected welfare educations and the restructure of the health care program at comprehensive colleges has been a part of this strategy. Thus, this program is intended to strengthen the transition from high school to welfare educations at universities and university colleges as a natural enhancement.39

The gap between the contradicting perceptions of research necessity is another important notion in regards to the research needs in Sweden. The educational landscape of Sweden consists of two primary clusters in relation to the focus on research, as illustrated in Figure 5.2. This divide should not be seen as a clear-cut dispute between the illustrated clusters, but rather as a fundamental difference in the approach to education.

The gap between the two clusters can nonetheless have an effect on the attractiveness of educations, since many educations have moved towards a stronger connection to research, as for instance the police education that have been restructured and placed at three universities in order to strengthen ties with research40. Other educations prioritize labour market relevance as for instance Nurse in Psychiatry and Orthopedic Technicians. An intermediate alternative does therefore not seem obvious in this regard.

The gap between the two clusters is also a potential obstacle for the knowledge dissemination within welfare professions, as the trail from research at the universities have less intermediate levels before it reaches educations at the more practical oriented educations.

Kommunal (2011)

This chapter describes the connection between research and welfare education in Iceland.

**The educational landscape**

The Icelandic educational system offers welfare educations at EQF-level 4 and EQF-level 6-7 within the relevant parameter of this research. See figure 6.1 below.

Comprehensive colleges ("fjölbrautaskóli"), specialized vocational schools ("sérskóli") and the Police College are all called upper secondary schools and offer educations at level 4. About the Police College, it is worth mentioning that The Minister of Interior is currently working on a regulation regarding demands of entry to the education. Until now, it has been necessary to have had completed at least two years of secondary education after compulsory school or other comparable education with satisfactory results. There are no upper specialization between upper secondary schools and universities within welfare educations and therefore not the possibility of diploma educations or alike. If a person educated within a vocational field wishes to study at a university later on in life it is evaluated by an upper secondary school how much general academic schooling the person needs to study before applying to a university. It is possible to get permission to study at a university without the matriculation examination but it is not common.

**FIGURE 6.1**
Welfare educations in Iceland at EQF 4 to 7

<table>
<thead>
<tr>
<th>University master’s degree (EQF 7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing, Midwifery, Biomedical Science, Dispensing Pharmacy, Pharmacological Science, Medicine, X-ray Technology, Family Therapy, Physiotherapy, Social Education, Health Science, Nutrition, Food Science, Odontology, Psychology, Public Health, Speech Pathology and Social Work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University bachelor’s degree (EQF 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing, Biomedical Science, Dispensing Pharmacy, Medicine, X-ray Technology, Physiotherapy, Social Education, Nutrition, Food Science, Dental Technician, Psychology, Occupational Therapy, and Social Work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Comprehensive College and specialized vocational schools (EQF 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Assisting Nursing, Licensed Practical Nurse, Foot Therapist, Masseur, Pharmacy Technicians and Basic Police Education, Training in Social Services, Dental Assistant</td>
</tr>
</tbody>
</table>

Source: DAMVAD 2015

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41 Ministry of Education Science and Culture, National Coordination Point (2013)

Universities ("háskóli") offer educations at level 6-7 and are accredited by The Ministry of Education, Science and Culture but the universities do not just receive a general accreditation to teach and practice research within all fields. Instead, they also need to get accreditation to teach within a relevant field and, thirdly; they need to get accreditation to offer doctoral degrees\textsuperscript{43}. The University of Iceland is the university with most accreditations and is allowed to provide educations within all fields except agriculture and fine arts. In addition, for example, the University of Akureyri provides educations for nursing and occupational therapy but has not been allowed to provide doctoral degrees – even though that is about to change\textsuperscript{44}. Universities educate students to prepare them for jobs that require scientific methods, knowledge and skills. The students are educated through teaching and participation in scientific research\textsuperscript{45}. Sometimes the Icelandic term for university - "haskóli" - refer to educational institutions without research responsibilities\textsuperscript{46} but there are no accredited higher educational institutions in Iceland than universities.

As can be seen, quite a lot of the welfare educations in Iceland are provided by universities and nursing was, with American inspiration, already made a university degree in 1974, although it was possible to take the education elsewhere until 1986.

There are certain university educations that leads to jobs with a big-enough likelihood for direct citizen contact in Iceland than what would probably be the case in other Nordic countries (e.g. Food Science, Public health).

\textsuperscript{43} Ministry of Education, Science and Culture (2002)
\textsuperscript{44} Hafðís Skúladóttir, Head of Faculty of Nursing, University of Akureyri
\textsuperscript{45} Ministry of Education, Science and Culture (2006)
\textsuperscript{46} E.g. EuroEducation.Net (2015)
6.1 The connection to research

Figure 6.2 below gives an overview of the institutions that provide welfare educations in Sweden, and to what extent they are based on relevant research. Since universities need to get a specific accreditation to offer doctoral degrees some universities do not have permissions to do so which may have consequences concerning the level of conducted relevant research at the specific universities. In other words, it is not meaningful only to understand the education’s connection to research in a given field based only on institutional level but it must also be based on the specific university’s accreditations.

**FIGUR 6.2**
Welfare educations in Iceland and their connection to research

- **University master’s degree**
  - Nursing, Midwifery, Dispensing pharmacy, Pharmacological Science, Medicine, X-ray technology, Family therapy, Social Education, Health science, Nutrition, Food science, Odontology, Psychology, Public health, Speech pathology and Social work, Gerontology

- **University bachelor’s degree**
  - Nursing, Dispensing pharmacy, X-ray technology, Physiotherapy, Social Education, Nutrition, Food science, Dental technician, Psychology, Occupational therapy and Social work

- **Comprehensive College and specialized vocational schools**
  - Licensed Practical Nurse, Advanced Assisting Nursing, Masseurs, Dental Assistant, Pharmacy Technicians, Foot Therapist and Basic Police Education, Training in Social Services

- **Indirect connection to research.**
  - The institution performs relevant research itself...
  - And main teachers are practicing researchers...
  - And research methods are part of the education.

Source: DAMVAD 2015
For example, it must be expected that The University of Iceland do more research within e.g. nursing since they are also allowed to provide doctoral degrees within health care opposite e.g. The University of Akureyri. As mentioned the accreditations concerning doctoral degrees within healthcare at The University of Akureyri is about to change and the ability to provide doctoral degrees means more funding for research since you can apply for more grants when providing doctoral degree. Therefore, The Faculty of Nursing finds it very important to be able to provide doctoral degrees. However, with this in mind, university teachers in general need to teach 40% of their time and do research 60% of their time though with the possibility of individual adjustments based upon the teachers wishes or the research needs of a given field.

Teachers at the Icelandic universities must at least have a master’s degree or have equivalent knowledge. The Icelandic universities in general have many teachers employed less than full time (or not employed at all) at universities especially within health care fields. These teachers do not have the same research responsibilities as fulltime teachers (if any at all), which may also explain why a high percentage of sessional teachers is often criticized. However, the Icelandic universities do not see this as a challenge especially not since it is exactly within health care research that the Icelandic stands very strong with collaboration with e.g. the U.S.

Even though the Icelandic educational system has a gap between upper secondary educations and university educations, the gap does not seem to raise any concerns regarding relevant research. As mentioned above the Icelandic universities already started teaching nursing in 1974 to ensure that the education became more research-based and to let students within nursing get experiences related to research methods. Since all university educations at both bachelor’s – and master’s degree involve research methods, it must be expected that the welfare educated in Iceland in general are educated in direct relationship to relevant research.

None of the upper secondary schools providing welfare educations at EQF-level 4 has direct contact with relevant research.

### 6.2 Research needs

The unique geographical and demographical features of Iceland make certain challenges unavoidable. In instance, The University of Akureyri will be granted permission to provide doctoral degrees in the nearest future because they have had trouble being able to get the amount of professors or assisting professors with doctoral degrees that is required for the accreditation until now.

In addition, there is an ongoing debate about what levels of educations are meaningful to provide when looking at the size of the population or said in other words; how many educations are meaningful to provide at master’s level? Though it might have its difficulties providing and securing the quality of the master degrees within specific fields it must also be put in mind that a master’s degree makes the possibility to study e.g. a doctoral degree abroad more realistic. Also, master’s degrees provided in Iceland might prevent too many of the students to go abroad for studies and thereby increase the possibility of young Icelandic people to stay in Iceland.

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As mentioned above a lot of the welfare educations are provided by universities and when asked the universities see this as an important gain in the later job functions because people educated within a university are educated to look up relevant new research findings and evidence based practice becomes a natural way of working. This is an interesting educational answer to the issue of a small population with none (or few, in other fields) “in-between” educations placing almost all specialized welfare educations at a university. In the matter of securing a high level of quality of welfare workers, it seems like Iceland may have found the right way under the circumstances.

Concerning the specific strengths and challenges in Icelandic social and healthcare research, the University of Iceland mentions health care as a field where they stand very strong and have international collaborations, and cannot immediately mention any challenges or needs. When asked about research needs it is research within the education for e.g. nursing itself that The University of Akureyri is missing. They miss research concerning both education in general at universities and also within nursing in specific, whether they are teaching enough ethical training, training in caring and knowing yourself as a nurse – in other words: research concerning whether the education for nursing actually trains the students for what they need to be trained for.
This final chapter summarises the findings across the Nordic countries and assesses the strengths and weaknesses of the models employed in the five Nordic countries.

This study maps the connection between research and welfare education in the Nordic Countries. However, we cannot say what consequences this has.

### 7.1 Models for research-basing educations

The Nordic countries have adopted several models for research-basing welfare educations. While some models are long-standing, others are under rapid reform. Currently, it is possible to distinguish four models for research-basing welfare educations in the Nordic countries, as shown below:

**FIGURE 7.1**

Four models for research-basing welfare educations

- Two-pronged educational model
- Two-pronged model with transitions
- Mixed educational model
- One-pronged educational model

Source: DAMVAD 2015

**A two-pronged welfare-educational system** in Sweden and Denmark. Here, a clear line has been drawn between welfare educations focused on the needs of the labour market (vocational educations) and academic welfare education (higher educations). The dividing line is at EQF-level 6.

Vocational welfare educations focused the needs of the labour market rather than research. Some educational institutions in this category consider research (and broader, academia) a distraction from the needs of the labour market. They see an opposition between the academic mind-set and the practical problems for which they are working to prepare their students.

Academic educations in the latter category are closely related to universities and research plays an important role in these educations. Not only are teachers practising researchers, but research methodology is a mandatory requirement in these educations.

The line between the two categories is subject to ongoing discussion and reform. Most noticeably, university colleges in Denmark were mandated to carry out research since 2013 (this is already the case in Sweden). Consequently, the majority of the welfare educations in Denmark are in a process of building research capacity and connecting educations to research.

**A two-pronged system with transitions** as in Finland, where all welfare educations above EQF-5 are research based. In addition, working experience of some vocational-level welfare educations at lower levels (e.g. nursing) qualify for academic educations.

Institutionally, Finland has adopted a two-pronged system as in Denmark and Sweden. However, the Finnish system makes provisions for pursuing an academic at later career stages. This is an approach to combining research and practical experience, without making significant institutional integration.
Additionally, the Finnish Police Academy is an example of research basing a traditionally labour market focused welfare education. The academy thus offers a research-based master’s degree in policing.

**A mixed welfare-educational system**, in Norway, where all welfare educations above EQF-level 5 research-based. This model is characterised by a blurred line between labour market and academic focus. Here, a large number of geographically distributed and research performing university colleges, where a large share of welfare educations are offered.

While this makes possible research basing a large share of welfare educations, but also means that some research communities lack critical mass.

**A one-pronged welfare educational system**, in Iceland, where most welfare educations are offered by (two) universities. While some welfare research communities lack critical mass, this model ensures a close connection between welfare education and research.

In addition, the model limits the number of talented students seeking higher educational opportunities abroad (and staying abroad subsequently).
References


Ministry of Education and Culture (2015g): University Education in Fin-land,
http://www.minedu.fi/OPM/Koulu tus/yliopistokoulutus/?lang=en


NOKUT (2013), Institusjonell dynamikk i høyere utdanning og fagskolesektoren, Juni 2013, http://www.nokut.no/Documents/NOKUT/Artikkelbibliotek/Kunnskapsbasen/Rapporter/UA%202013/Bakken_P%C3%A5%incl_Institusjonell_dynamikk_i_h%C3%B8yere_utdanning_og_fagskolesektoren_2013_4.pdf


Regeringskansliet (2014), En nationell referensram for kvalifikasjoner for livslångt lærende http://www.regeringen.se/content/1/c6/24/36/44/6b0c9950.pdf


S. W. Fraser & P. Plsek, (2013) "Translating evidence into practice: can it be done through the process of spread?" Education in Primary Care, May 2003

Appendix

7.2 Interviewees in Norway

- Tove Knudesen, NOKUT
- Susanne Grøden Johansen, Uddannelsesleder på Bacheloruddannelsen i ergoterapi på Universitetet i Bergen,
- Marit Olsen, studieleder sykepleieuddannelsen på Høgskolen i Sør-Trøndelag
- Anne Flaaten Tønsberg, institutleder sykepleieutdanningen på Universitetet i Agder
- Tor Rynning Torp, Universitets- og Høgskolerådet: Seniormedlem og sekretariatsbetjening for rådet for Sundheds- og Socialuddannelser
- Knut-Erik Beyer-Arnesen, styreleder for Forum for Fagskoler og styreleder for Forum for Friskoler
- Ola Stave, Generalsekretær Universitets- og Høgskolerådet

7.3 Interviewees in Denmark

- Lars Kunov, direktør Danske Erhvervsskoler
- Stefan Hermann, rektor Metropol og formand for Forskningspolitisk udvalg i Danske Professionshøjskoler
- Jens Erik Mogensen, formand for Københavns Universitets tværgående arbejdsgruppe vedrørende samarbejde mellem KU og professionshøjskolerne
- Hanne Helleshøj, bestyrelsesmedlem i danske SOSU-skoler og direktør SOSU Fredericia- Vejle-Kolding
- Hans Lund, studieleder på Fysioterapiuddannelsen, SDU
- Klaus Munk Nielsen, Politiinspektør Politikskolen
- Inger Schröder, chefkonsulent på Det Sundhedsfaglige og Teknologiske Fakultet på Metropol og tidligere hhv. rektor på ergoterapeutuddannelsen og institutchef på Metropol
- Bente Hartvig, forsknings- og udviklingschef på UC Nord

7.4 Interviewees in Finland

- Leena Walfors, Executive Director at UNIFI
- Erja Heikkinen, Counsellor for education, Department of Higher Education and Science, Ministry of Education and Culture
- Hannu Kiehelä, Director at training institute for prison guards
- Hanna Autere, Counsellor for Education, Vocational Education and Training,
- Finnish National Board of Education
- Vesa Huotari, Senior Researcher at Police College
- Johanna Moisio, Senior Advisor, Department for Higher Education and Science
- Policy, Ministry of Education and Culture
- Annika Wentjärvi, FoU-ledare, Yrkeshögskolan Novia

7.5 Interviewees in Iceland

- Gudmundur Gíslason, Prison Director and responsible for education of prison guards
- Heba Soffia Björnsdottír Admintrative, Officer, Háskóli Íslands
- Eirikur Hreinn Helgason, Chief Superintendent, The Icelandic National Police College
- Thorhallur Ingi Halldorsson, Dean of Faculty of Food and Science, Háskóli Íslands
- Fridrika Hardardottír, Secretary General to the Icelandic Rectors Conference
- Hafdis Skúladóttir, Head of Faculty of Nursing, University of Akureyri

7.6 Interviewees in Sweden

- Sara Bringle, Deputy Director, Division for Higher Education at the Ministry of Education and Research, Utbildningsdepartementet
- Tomas Egeltoft, Utredare, Utvärderingsavdelningen, UK-ämbetet
- Stella Annani, Utredare, Utvärderingsavdelningen, UK-ämbetet
- Stefan Skimutis, Internationell koordinator, YH-myndigheten
- Peter Gates, Utbildningshandläggare, YH-myndigheten
- Mikael Hurtig, HR-expert, Head Office Swedish prison and probation service,
- Lars-Erik Lauritz, Universitetslektor, Umeå universitet - Polisutbildningen