RESULTS OF THE NATIONAL PROJECT ON ANTICIPATION OF COMPETENCES AND SKILLS NEEDS (VOSE)

Helsinki 2012
Introduction

The National Project on Anticipation of Competences and Skills Needs (VOSE) was implemented with funding from the Finnish National Board of Education (FNBE) and the European Social Fund (ESF) between 1st June 2008 and 31st May 2012. The project developed a process model for anticipating competences and skills needs. The aim was to produce anticipation data for use in development of the contents of vocational education and training (VET), polytechnic and university education to meet the needs of the future world of work. The model being developed needs to be applicable to anticipation of education and training provision intended both for young people and adults. The model takes account of the needs for both Finnish- and Swedish-speaking people.

The anticipation model has been piloted in the following three sectors: child day care as well as child care and education and family welfare (Swedish-language pilot), real estate and construction, and tourism and catering services (Finnish-language pilot). The pilot projects have provided anticipation data on the future competences and skills needs in the sectors concerned and tested the anticipation model. This document is a compilation of the abstracts of the reports on competences and skills needs produced as part of the pilot projects. The first section deals with the report on child day care and child care and education and family welfare. This is followed by real estate and construction. The last section examines the key results of the report on tourism and catering services.

1 Child day care as well as child care and education and family welfare

The anticipation model of competences and skills needs was tested and developed by a Swedish-language pilot group covering child day care as well as child care and education and family welfare from the autumn of 2009 to the spring of 2011. The results of the preparatory work performed by officials and the work carried out by the pilot group include a background survey on health care and social services, a background survey on child day care and child care and education and family welfare, as well as the final report for this pilot sector. The final report describes the anticipation process and its results, consisting of four alternative future scenarios. Based on the preparatory work and the work carried out by the pilot group, the project identified various change forces, which were used as the basis for devising four alternative future scenarios. The scenarios describe the future 10 to 15 years from now; in other words, the anticipation group envisioned competences and skills needs in day care and child care and education and family welfare around the period from 2021 to 2026 (Figure 1).

1. The world is changing, day care is not
2. Dismantling welfare and care
3. Multidisciplinary and smorgasbord approach: child and family centres
4. Day care is being digitalised

Figure 1. Future scenarios prepared in the VOSE project.
The following types of considerations and changes emerged as part of the scenario development work:

1 **The role of multidisciplinary and child-centred life-cycle approaches.**

   A working method essentially based on multidisciplinary and child-centred life-cycle approaches is becoming an established practice. This working method will have to be included more actively as a natural part of studies. The pilot group has therefore emphasised the significance of pedagogy, lifelong learning and children’s learning.

2 **The role of customer orientation.**

   Society is continuously developing towards a service society and all sectors are becoming more service-oriented. This is a strong trend, which also influences child care and education and family welfare. On the one hand, people today expect better and more customised services; on the other, it is increasingly important to divide the customer base into segments in order to develop various, both digital and face-to-face services for customers in a productive and efficient manner. Furthermore, it is necessary to take account of the possibility that there will be an increasing number of specialised day-care centres. Some parents already choose day-care centres specialising in areas such as the arts or language immersion for their children. Nowadays there is also a wide variety of family structures.

3 **Development towards an increasingly multicultural society.**

   It is important for staff to be able to take into account different language and cultural backgrounds, including various subcultures. Staff at Swedish-language day-care centres are already used to working in a bilingual environment. It is very important for day-care centres to set a good linguistic example for children and to be aware of the significance of language to children’s development and identity.

4 **Effects of information and communications technology (ICT) on society, including day care.**

   One point raised as part of the scenario development work was how important it is to develop human-friendly technology and how important it is for day-care staff also to learn to use ICT and new media in ways that support rather than hinder children’s development.

5 **Intensifying demands for a sustainable lifestyle.**

   Some young families will opt for a simplified way of life – downshifting – and move to eco-villages or communal residential buildings while working from home or living on civic income. This will have a major bearing on what types of services families with children will expect to receive. Even now, some parents demand locally sourced food free from additives, for example, or do not want their children to have vaccinations. This trend will become more prominent in the future and may create demand for new types of day-care services.
6 Staff working with children and families should be equipped to deal with crises.

Examples of crises include pandemics and climate change and their effects on living conditions. The intensifying inequality between families with children and their wide-ranging social exclusion will also demand specialist competences from those working in the sector. Expertise in areas such as mass communications and safety and security issues, basic knowledge of health care and a broad competence base will play a significant role in this respect.

7 Constant change in society and the effects of changes on working conditions within child day care and child care and education and family welfare.

It is important for employees to be able to assess operations, notice needs and develop new working methods, also while working under pressure.

The following points are expected to have a bearing on the types of competences that will be required in the future. Working conditions will change and new tasks will emerge – and possibly new occupations too. It would be advisable to start developing the conditions to provide education and training in line with new needs already now. The project has divided the general competences and skills needs for the future into five different groups (Figure 2).

- The communication and customer orientation group includes the ability to relate to and support different families and to work with colleagues and parents in educational co-operation as well as the ability to communicate digitally.
- The problem-solving and innovation ability group includes the ability to develop personal competences and the ability to develop various working methods in different situations to meet the changing requirements of society and customers.
- The cultural aspects and language group refers to taking individual children’s monolingual, bi- or multilingualism and children and families from different cultural backgrounds, including subcultures, into account at work.
- The professional role, multidisciplinary approach and workplace culture group covers administrative aspects and, in particular, issues relating to leadership and collegial relationships – issues that concern management and leadership, supervision, co-operation, development, making changes, assessment and evaluation, and promotion of well-being at work.

Pedagogy plays a significant role. This applies to basic pedagogical skills in particular, but also to areas such as special pedagogy, gender pedagogy, cultural pedagogy, media pedagogy and art pedagogy.

Figure 2. Future competences and skills needs by theme.

The pilot group considered that the above-mentioned changes also went to show that new occupations and tasks will be required within day care and within child care and education and family welfare. There will be increasing demand for occupational groups involved in various types of visiting and outreach work, those providing new types of home services within information, counselling, guidance and coaching activities, cultural and language consultants and interpreters, as well as support educators and assistants.
In particular, the following considerations and work phases played a significant role in the scenario development work:

- The sectors, occupational groups and relevant education and training programmes were clearly defined.
- The composition of the pilot group was broad-based.
- During the work, the pilot group collected and analysed weak signals and developed these into broader phenomena, trends and change forces, making use of the TrendWiki tool provided by the Ministry of Employment and the Economy.
- Of the trends and change forces identified, the pilot group chose the ones that were most important in terms of the sector's development and devised four scenarios based on these.
- The scenarios were supplemented with wild cards, subsequently adding threats to the scenarios, in particular to the disaster scenario. It seemed appropriate to add threats to the scenarios, because the sector is anticipated to have a need to improve readiness to cope with exceptional situations.
- The pilot group determined what types of competences would be required in the worlds described within the different scenarios. Taking the target sector as the starting point, the group defined key general competences and skills needs, framing these in concrete terms (see Figure 2).
- The pilot group chose three key occupational groups in the sector for further analysis and determined general and professional competences and skills needs by occupational group.
- The pilot group expressed in concrete terms the general competences and skills needs in the sector and in each occupational group.

2 Real estate and construction

For the purposes of anticipation of the real estate and construction sector, the project set up a pilot group bringing together representatives of the sector both from different levels of education (VET, polytechnic and university education) and from labour market organisations, the research sector and central administration. During the anticipation process, the pilot group first outlined the change forces influencing future competences and skills needs in the sector, using these to prepare alternative scenarios, and then derived future competences and skills needs and proposals for improvement from these.

The change forces identified as the most essential were competitiveness and internationalisation, controlling climate change and a multidisciplinary approach. Drawing on these change forces, among other things, the pilot group decided to use the following three scenarios as the starting points for anticipation of future competences and skills needs:

1. The ‘Patience is a Virtue’ scenario, representing the most likely future.
2. The ‘Dream Team’ scenario, describing a desirable future in many respects.
3. The ‘Drifting Clouds’ scenario, outlining an undesirable future.

The next step was to determine competences and skills needs for each scenario. The required competences and skills were also considered from the perspective of a few key occupational groups (construction workers, construction engineers, property maintenance operatives,
cleaners, and managers and professionals in construction). Competences and skills needs were also determined in terms of certain sectors of the real estate and construction sector (construction, design services, and user and site services).

The pilot group concluded that the competences and skills needs outlined for the Patience is a Virtue scenario also created a basis for the Dream Team scenario. The Dream Team scenario was mostly regarded as being a desirable future state that would require higher investment in competence and in development of the sector in general than the Patience is a Virtue scenario. As for the Drifting Clouds scenario, the group pointed out that the key was to work to prevent this scenario from becoming reality, while it was also necessary to prepare for this eventuality.

The following key competences were identified for the future:

- understanding customer needs and the user perspective;
- leadership and management of the big picture, equally in terms of construction projects, business operations, R&D projects as well as service packages;
- internationalisation, involving areas such as language skills and cultural competences;
- technological competence, including the use of ICT, data modelling, various property-related systems, robotics and automation;
- competences relating to climate change, energy efficiency and environmental issues;
- a multidisciplinary approach both in terms of individuals and teams;
- knowledge of standards, statutes and occupational safety, ethical competence;
- quality thinking, competence relating to risk assessment;
- competences relating to crisis management, maintenance of supply security and preparation for extreme conditions.

The weights assigned to these competences varied slightly in terms of different scenarios and occupations, while their contents were also further specified by sector.

Perhaps the most rewarding aspects identified in the pilot work included the diverse composition of the group and the resulting dialogue between different levels of education and different sectors relevant to the sector. Furthermore, the scenario technique was regarded as being a good approach to anticipating future competences and skills needs in the sector. The process should be developed so as to assign a more prominent role to the customer perspective in the sector and to involve customers’ representatives in the actual anticipation work. It was also pointed out that a group carrying out anticipation work should convene more frequently than had been possible during this pilot.

3 Tourism and catering services

The third anticipation process was carried out in the tourism and catering services sector between December 2011 and April 2012, making use of the experiences gained from the above-mentioned pilots and from an external evaluation of the project. For the purposes of anticipating future competences and skills needs in tourism and catering services, the project put together an anticipation team composed of the National Education and Training Committee for Tourism and Catering Services and other experts in the sector. After the constituent meeting, the anticipation team convened for four full-day anticipation workshops, which were followed by a final meeting to expand on the results produced so far.
The anticipation team first considered the key future change forces influencing the tourism and catering sector, determined different alternative future states for these and devised four different scenarios for the sector, using the futures table method. Based on the scenarios, the anticipation team worked out future competences and skills needs and proposals for improvement of education and training. The time perspective for the anticipation work was 10 to 15 years ahead, which means that the team contemplated competences and skills needs in tourism and catering services around the period from 2021 to 2026.

The following key competences and skills needs concerning the entire sector emerged in several different future states:

- basic skills and core competences in the sector, such as competences relating to food and nutrition, as well as basic competences relating to tourism;
- language skills
- cultural competence, such as understanding and making use of multiculturalism and local cultures;
- safety and security, risk management and crisis competences;
- ICT competence and following developments in the sector as well as fast absorption of relevant new operating methods;
- management and leadership competences;
- understanding diversity, understanding ‘difference’;
- environmental and ecological competences and competences relating to responsible action and sustainable development;
- business competence, sales and marketing skills and entrepreneurial competence;
- networking skills;
- customer relationship skills;
- mastery of labour legislation and collective agreements;
- knowledge of legislation governing the sector and contract law;
- anticipation competence;
- understanding research information and making use of it in development work.

Furthermore, it will be increasingly important for people to continuously improve their own competences and vocational skills in the future. It is very difficult to anticipate changes in individual phases of work processes, the equipment used in the future or in ICT at a precise level. It is therefore important for professionals to follow developments taking place around them on an ongoing basis. Competences and skills needs were not prioritised at any phase of the process. Neither did the team take a stand on how different competences and skills needs should be taken into account at different levels of education, but focused instead on producing future competences and skills needs for further processing by those involved in practical design and development of and decision-making on educational contents.

Two surveys were produced to provide background material for the anticipation work. One of these contained information about tourism and catering services, including parties involved in the sector and its occupational and educational structures. The survey also compiled results of previous anticipation efforts concerning the sector. The other survey compiled recent forward-looking projects dealing with society and the world of work in more general terms and, in particular, the visions of the key change forces for the future produced in these projects.
The team also made use of a questionnaire survey conducted for secretaries and chairs of other National Education and Training Committees, which yielded valuable information for the process about the views of experts in other sectors concerning future changes occurring at the interface between their own sector and tourism and catering services. Furthermore, the team made use of the TrendWiki system maintained by the Ministry of Employment and the Economy, collecting materials relating to the target sector with a view to picking out signals relevant to future developments in the sector.

The VOSE project has also tested the C&Q-profession system, where the educational organisations involved in the pilot have compiled the results of the interviews they have conducted with work organisations concerning themes such as future competences and skills needs. This interview data was used as background material for the anticipation work. The anticipation team concluded that the perspective on institutional and professional kitchens had remained a bit too tentative in the work and, in these respects, there would be a need for further processing of the results.

Sources

