FINNISH EDUCATION
EVALUATION CENTRE

THE STATUS OF VOCATIONAL EDUCATION AND TRAINING PROVIDERS' QUALITY MANAGEMENT SYSTEMS

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Abstract

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The development of quality management in vocational education and training in Finland is based on both national policy outlines and the underlying policy outlines of the European Union. The aim set in Finland was that all vocational education and training providers would have a well-functioning system supporting quality management and the continuous improvement of quality in place by 2015.

Between 1 April and 30 September 2015, the Finnish Education Evaluation Centre evaluated the quality management systems of vocational education providers according to the evaluation criteria drawn up by a working group on quality management appointed by the Ministry of Education and Culture.

The evaluation was based on self-evaluation reports (n = 168) from education providers, and evaluation visits (n = 35) that were carried out in order to assess the reliability of the evaluation and receive additional information. The evaluation was partly conducted in collaboration with the Finnish National Board of Education. In addition to the group of evaluators, a number of experts in vocational education and quality management took part in the evaluation visits.

According to the criteria used in the evaluation, a large proportion of education providers (71%) had a well-functioning quality management system in place. However, there were differences between the education providers based on the type of ownership and education institution, as well as on how long systematic quality management had been in place. The factor most explaining the differences was for how long the development of quality management system had been carried out. According to the results, the providers who had developed their quality management for 6–10 years had statistically better quality management systems than those who had developed their systems for a shorter period of time.

The central strengths in the quality management systems were:

- The strengths in strategic management and operations management were related to the command of the strategy process and the involvement of staff in that process as well as the integration of quality management in strategic management and operations management. The significance of the management's commitment to the long-term promotion of quality management was emphasised.

- The strengths in the Improvement-evaluation area were related to the utilisation of follow-up, evaluation and result data in decision-making and development activities, to project activities and network collaboration as well as to the practices of learning from others.

- The strengths in the quality management of development, guidance and support tasks in special needs education were a customer-oriented approach and making use of diverse information in the continuous improvement of operation.

The central development needs in the quality management systems were:

- The development needs in the area of quality culture and the quality management system were related to documentation of the quality management system, creation of an electronic version of that system and use of information systems, harmonisation of procedures in the different operational units and operations, and involving the different parties such as staff, students, working life partners and stakeholder groups in the quality management and its continuous development. Other central development areas that also emerged were related to ensuring the competence on quality management and evaluation.

- The development needs related to the quality management of the core duties as a whole, on policies related to the core missions, harmonisation of operating and quality management practices (e.g. strategic and pedagogical policy outlines, processes and indicators, the common part of the curriculum) and ensuring their implementation (e.g. different operational units and operations) as well as on considerations on making use of development projects. More development needs related to the above emerged in the evaluation area related to apprenticeship training and support services than in other areas.

- The central development needs in the Evaluation and use of results - evaluation area were related to creating well-functioning evaluation procedures and communicating of evaluation results, as well as to ensuring evaluation competence. In addition, it was discovered that procedures for the evaluation of quality management systems need to be created.

According to the evaluation, there is a need for a permanent procedure of external evaluation for the quality management systems of vocational education providers and to further develop the evaluation criteria.

Tiivistelmä

Tekijät
Anu Räisänen, Tarja Frisk, Risto Hietala, Marjut Huttunen, Aila Korpi, Leena Koski

Ammatillisen koulutuksen laadunhallinnan kehittäminen Suomessa perustuu sekä kansallisiin että niiden taustalla oleviin Euroopan unionin linjauksiin. Suomessa tavoitteeksi asetettiin, että kaikilla ammatillisen koulutuksen järjestäjillä on toimiva laadunhallintaa ja laadun jatkuvaa parantamista tukeva järjestelmä vuoteen 2015 mennessä.

Kansallinen koulutuksen arviointikeskus arvioi ammatillisen koulutuksen järjestäjien laadun-hallintajärjestelmiä 1.4.–30.09.2015 välisenä aikana opetus- ja kulttuuriministeriön nimittämän laatutyöryhmän laatiman arviointikriteeristön mukaisesti.

Arviointi perustui järjestäjien itsearviointiraportteihin (n = 168) sekä arvioinnin luotettavuuden arviointiin ja lisätiedon saamiseen liittyviin arviointikäynteihin (n = 35). Arviointi tehtiin osin yhteistyössä Opetushallituksen kanssa. Arviointiryhmän lisäksi arviointikäynneille osallistui ammatillisen koulutuksen ja laadunhallinnan asiantuntijoita.

Suurella osalla koulutuksen järjestäjistä (71 %) on toimiva laadunhallintajärjestelmä arvioinnissa käytetyn kriteeristön mukaan tarkasteltuna. Koulutuksen järjestäjien välillä on kuitenkin eroja omistaja- ja oppilaitostyypeittäin sekä systemaattisen laadunhallinnan keston mukaan. Eniten eroja selittävä tekijä oli laadunhallinnan kehittämistyön kesto. Tulosten mukaan 6–10 vuotta laadunhallintaa kehittäneiden järjestäjien laadunhallintajärjestelmät olivat tilastollisesti parem-mat kuin vähemmän aikaa järjestelmäänsä kehittäneillä järjestäjillä.

Keskeisimmät laadunhallintajärjestelmien vahvuudet:

- Strategisen johtamisen ja toiminnan ohjauksen vahvuudet liittyivät strategiaprosessin hallintaan ja henkilöstön osallistamiseen siihen sekä laadunhallinnan integroitumiseen strategisen johtamisen ja toiminnan ohjauksen osaksi. Johdon sitoutumisen merkitys pitkäaikaiseen laadunhallintaa edistävään työhön korostui.

- Parantamisen arviointialueen vahvuudet liittyivät seuranta-, arviointi- ja tulostietojen hyödyntämiseen päätöksenteossa ja kehittämistoiminnassa, hanke- ja projektitoimintaan ja verkostoyhteistyöhön sekä toisilta oppimisen käytänteisiin.

- Erityisopetuksen kehittämis-, ohjaus- ja tukitehtävien laadunvarmistuksen vahvuuksia ovat asiakaslähtöisyys ja monipuolisen tiedon hyödyntäminen toiminnan jatkuvassa parantamisessa.

Keskeisimmät laadunhallintajärjestelmien kehittämistarpeet:

- Laatukulttuurin ja laadunhallinnan kokonaisuuden kehittämistarpeet liittyivät laadunhallintajärjestelmän dokumentointiin, järjestelmän sähköistämiseen ja tietojärjestelmien käyttöön, eri toimintayksiköiden ja toimintojen menettelytapojen yhdenmukaistamiseen sekä eri tahojen, kuten henkilöstön, opiskelijoiden, työelämän, kumppaneiden ja sidosryhmien osallistamiseen laadunhallintaan ja sen jatkuvaan kehittämiseen. Keskeiseksi kehittämisen kohteeksi nousivat myös laadunhallinta- ja arviointiosaamisen varmistamiseen liittyvät näkökohdat.

- Perustehtävän laadunhallintaan kokonaisuutena liittyvissä kehittämistarpeissa korostuivat eri perustehtäviin liittyvien linjausten, toimintaperiaatteiden ja laadunhallinnan menettelytapojen yhtenäistämiseen (esim. strategiset ja pedagogiset linjaukset, prosessit ja mittarit, opetussuunnitelman yhteinen osa) ja niiden toteutumisen varmistamiseen (mm. eri toimintayksiköt ja toiminnot) sekä kehittämishankkeiden hyödyntämiseen liittyvät näkökohdat. Edelliseen liittyviä kehittämistarpeita nousi muita enemmän esiin oppisopimuskoulutukseen ja opiskelijoille tarjottaviin tukipalveluihin liittyvillä alueilla.

- Arviointi ja tulosten käyttö arviointialueen keskeiset kehittämistarpeet liittyivät toimivien arviointikäytänteiden luomiseen ja arviointituloksista viestittämiseen sekä arviointiosaamisen varmistamiseen. Lisäksi on tarvetta luoda menettelyt laadunhallintajärjestelmien arviointiin.

Arvioinnin mukaan on perusteltua luoda pysyvä ammatillisen koulutuksen järjestäjien laadunhallintajärjestelmien arvioinnin käytänne ja kehittää arvioinnin kriteeristöä.

Sammandrag

Utvecklingen av kvalitetsledningen inom yrkesutbildningen i Finland grundar sig både på nationella riktlinjer och på riktlinjer från Europeiska unionen som de nationella riktlinjerna baserar sig. I Finland sattes som mål att alla anordnare av yrkesutbildning senast 2015 har ett fungerande system som stödjer kvalitetsledningen och den kontinuerliga kvalitetsutvecklingen.

Nationella centret för utbildningsutvärdering utvärderade yrkesutbildningsanordnarnas kvalitetsledningssystem 1.4–30.9.2015 i enlighet med utvärderingskriterier som tagits fram av en kvalitetsarbetsgrupp tillsatt av undervisnings- och kulturministeriet.

Utvärderingen baserade sig på anordnarnas självvärderingsrapporter (n = 168), på en bedömning av dessa värderingars reliabilitet och på utvärderingsbesök som genomfördes för att få ytterligare information (n = 35). Utvärderingen gjordes delvis i samarbete med Utbildningsstyrelsen. Utöver utvärderingsgruppens medlemmar deltog experter på yrkesutbildning och kvalitetsledning i arbetet.

Med avseende på de kriterier som användes vid utvärderingen av kvalitetsledningssystemen har en stor del av utbildningsanordnarna (71 %) ett fungerande system. Det finns dock skillnader mellan utbildningsanordnarna – skillnader som har att göra med ägartypen, läroanstaltstypen och hur lång tid anordnaren systematiskt arbetat med kvalitetsledning. Den faktor som förklarar skillnaderna mest var hur lång tid man hade arbetat med att utveckla kvalitetsledningen. Enligt resultaten i den statistiska analysen hade de anordnare som utvecklat kvalitetsledningen i 6–10 år ett bättre kvalitetsledningssystem än de som hade utvecklat sitt system en kortare tid.

De centrala styrkorna i kvalitetsledningssystemen var följande:

- Området Strategisk ledning och verksamhetsstyrning: styrkorna gällde hur man hanterar strategiprocessen och engagerar de anställda i den samt hur man integrerar kvalitetsledningen i den strategiska ledningen och verksamhetsstyrningen. Ledningens engagemang i arbetet för att långsiktigt förbättra kvalitetsledningen var viktigt.

- Området Förbättring: styrkorna gällde utnyttjande av uppföljnings-, utvärderings- och resultatinformation i beslutsfattande och utvecklingsarbete samt förfarandena för projektverksamhet, nätverkssamarbete och benchmarking.

- Området Utvecklings-, handlednings- och stöduppgifter inom specialundervisning: styrkorna i kvalitetsledningen var kundorienteringen och det mångsidiga utnyttjandet av information i den kontinuerliga förbättringen av verksamheten.

De centrala utvecklingsbehoven i kvalitetsledningssystemen var följande:

- Utvecklingsbehoven i Kvalitetskulturen och kvalitetsledningshelheten gällde dokumentationen av kvalitetsledningssystemet, digitaliseringen av systemet, användningen av informationssystem, förenhetligandet av förfaringssätten i de olika verksamhetsenheterna och funktionerna samt involveringen av olika aktörer, såsom personalen, de studerande, arbetslivet, partnerna och intressentgrupperna, i kvalitetsledningen och den kontinuerliga utvecklingen av den. Det vore också viktigt att sä-kerställa kompetensen i kvalitetsledning och utvärdering.

- Utvecklingsbehoven i Kvalitetsledningen i fråga om de grundläggande uppgifterna gällde främst riktlinjerna för de olika grundläggande uppgifterna, förenhetligandet av handlingsprinciperna och förfarandena inom kvalitetsledningen (t.ex. strategiska och pedagogiska riktlinjer, processer och indikatorer, läroplanens gemensamma del) och säkerställandet av att de genomförs (bl.a. de olika verksamhetsenheterna och funktionerna) samt aspekter som hänför sig till utnyttjandet av utvecklingsprojekten. I områdena läroavtalsutbildning och ordnande av stödtjänster fanns det mer utvecklingsbehov än i de övriga områdena.

- De centrala utvecklingsbehoven i utvärderingsområdet Utvärderings-, respons- och resultatinformation gällde skapandet av utvärderingsrutiner, informationen om utvärderingsresultat och säkerställandet av kompetensen i utvärdering. Dessutom finns det behov av att skapa förfaranden för utvärderingen av kvalitetsledningssystemen.

Utvärderingen visade att det är motiverat att skapa ett permanent förfarande med utvärdering av yrkesutbildningsanordnarnas kvalitetsledningssystem och att ta fram kriterier för utvärderingen.

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SYNTHESIS

1
Introduction
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The development of quality management in vocational education and training (VET) in Finland is based on both national policy outlines and the underlying policy outlines of the European Commission. Result-oriented vocational education development work that began with the Copenhagen Process and has increased awareness of the importance of VET and of the need to unify the model of vocational education throughout Europe. The process had led to, for example, the preparation of qualification frameworks, adoption of a learning outcome-oriented approach, and systematic improvement of the quality, attractiveness and labour market relevance of vocational education.

Finland is committed to observing the European Union's policies on the development of quality management in vocational education, according to which a common quality management framework for vocational education providers must be established at the national level by the end of 2015 (Bruges Communiqué 2011–2020). The European Union has established a common quality assurance framework (recommendation of the European Union and of the Council 2009/C 155/01) to serve as a basis for national decision-making. The framework lists the quality criteria as well as the indicative descriptors and quality indicators for quality management in education. According to the framework, its implementation should be reviewed every four years.

The quality strategy for vocational education and training 2011–2020 (MEC 9/2011) prepared by the Ministry of Education and Culture, has steered the development of quality management in vocational education and training at the national level. According to the quality strategy, the need for systematic quality management is evident in the coverage and functionality as well as the transparency of quality management. Consequently, quality management should be a central tool for management, it should cover the entire operational field of an education provider, and it should steer work at different levels as well as the continuous improvement efforts. In addition, quality management must be a viable tool for demonstrating the quality of operations and results to all customers and other stakeholder groups. The requirements related to the impact of education are also highlighted.

The quality strategy for vocational education and training has provided the guidelines for setting the national targets. The aim set in the development plan for education and research for the period 2011–2016 was as follows: all vocational education and training providers are to have a well-functioning system supporting quality assurance and continuous improvement of quality in place by 2015. The aim is defined but the providers may choose the quality management system

and framework they use. However, the focus of the system should be on ensuring consistent quality and striving for excellence, in other words on continuous improvement. Thus, quality management should be a comprehensive set of systematic planning, implementation, evaluation and continuous improvement.

The need for efficient quality management was further emphasised by the Ministry of Education and Culture, when the requirement to meet the criteria was linked to the decision-making and planned schedule involved in the structural development of VET and the granting of new licences for vocational education. However, at the time the evaluation results were not intended as the basis for the granting of new licences, but as a source of background information.

The Ministry of Education and Culture has steered the development and assurance of VET quality management by, for example, appointing a working group on quality management for VET that represents different sectors (education providers, teachers, students, labour market organisations, entrepreneurs and other experts in vocational education and evaluation), and by allocating appropriations to the development of VET providers' quality management systems. The working group on quality management was tasked with drawing up a set of criteria for the education providers' quality management systems and continuous quality improvement systems, and these criteria should cover all forms of vocational education and training provision. The applicability of the criteria and the evaluation process were tested in a pilot project during the spring of 2014, and they were further developed for the self-evaluation and external evaluation of the quality management systems carried out during the spring of 2015.

The Ministry of Education and Culture and the Finnish National Board of Education instructed the education providers to carry out an evaluation of quality management and its continuous improvement at the beginning of 2015. The providers evaluated their operations during January–March, and the results gathered through a Survette survey were saved in the information system maintained by the Finnish National Board of Education. The education providers decided on the organisation and participants of the evaluation themselves, within the limits set in the given instructions.

The evaluation of vocational education providers' quality management systems presented in this report was carried out between 1 April and 30 September 2015, and it was based on self-evaluation reports (n = 168) submitted by education providers, and evaluation visits (n = 35) that were carried out in order to assess the reliability of the evaluation and attain additional information. The evaluation was partly conducted in collaboration with the Finnish National Board of Education. A group of evaluators appointed by the Finnish Education Evaluation Centre (see section 3.3) was responsible for the evaluation and for jointly drawing the evaluative conclusions. In addition to the group of evaluators, a number of experts in vocational education and quality management took part in the evaluation visits.

The first part of the report presents the evaluation tasks and objectives, targets, criteria and process, and the evaluation framework along with the evaluation questions. In addition, the central factors related to the external evaluation process are described therein. The first part also presents the principles applied in the selection of evaluation visit targets and in the organisation of the visits.

The chapter regarding the analysis of the results and drawing-up of the report focuses on presenting the main principles of how the results were analysed. The chapter describing the results proceeds from the overall picture regarding VET providers' quality management systems to a detailed analysis of the results according to background variables. The results of providers whose performance was above or below the acceptable level specified by the working group on VET quality management are compared with each other.

In addition to the quantitative analysis and comparisons described above, the report presents the results of the qualitative analysis. The qualitative analysis carried out by sampling was based on the self-evaluation reports from providers not participating in the evaluation visits (n = 49) and the feedback reports issued to the evaluation visit targets (n = 35). The results of this analysis are specified in relation to the groups that performed above and below the acceptable limit.

The chapter on reliability compares the self-evaluation results from the providers, who were the targets of evaluation visits (n = 35), with the group containing all the providers, who participated in the evaluation, which consequently also included all evaluation visit targets. The comparison shows the extent to which the particular evaluation method based on self-evaluation can be deemed reliable when drawing conclusions regarding vocational education providers' quality management systems. The reliability chapter also includes the evaluation group's interpretations of the status of each education provider's quality management system in relation to the provider's own assessment. In addition, the reliability chapter highlights the results of statistical analyses related to the assessment of reliability.

Evaluative conclusions and development recommendations are presented at the end of the report.

PART I
IMPLEMENTATION OF THE EVALUATION

2
Starting points for the evaluation

The evaluation of quality management systems used in VET is based on requirements, objectives and principles set nationally for quality management. The requirement for quality management proposed in the development plan for education and research (2011–2016) and presented above in the introduction served as the starting point for the evaluation.

The objectives for the development of VET providers' quality management systems have been very topical for several years, and education providers have been informed well in advance of the national evaluation. Education providers' quality management has also been supported by national measures for several years. For example, providers have had the opportunity to join networks promoting development, and, thus, to receive support for the development of their own quality management system.

The status of education providers' quality management systems is different in relation to system development and maintenance. Some education providers have been able to develop their system as a long-term process, whereas others have been forced to adjust their systems even on several occasions due to organisational or other changes. Moreover, the development of quality management systems may have been influenced by the fact that vocational education is not the only task of all education providers.

2.1 Purpose and objectives of the evaluation

The purpose of this evaluation is to provide information on whether all education providers have an effective system in place that supports quality management and continuous improvement in accordance with the aim set in the development plan for education and research. The purpose is to produce reliable and comparable evaluation data regarding the status and effectiveness of the system supporting all vocational education providers' quality management and the continuous improvement of quality.

The objective of the evaluation was to support and encourage education providers to further develop their own quality management. Another objective was producing data on how those education providers who do not yet have a functioning system or who have only started developing such a system could be supported. A third objective was producing information for the purpose of developing support forms and services targeted at the education providers.

2.2 Frame of reference of the evaluation

In June 2012, the Ministry of Education and Culture appointed a working group on quality management for vocational education (the term of which will come to an end at the end of 2015), which was tasked with preparing a proposal for the evaluation of the system pertaining to VET providers' quality management and continuous improvement and for the evaluation criteria. The criteria were developed further in 2014 based on the experiences gathered from the pilot project. The following perspectives were emphasised in the preparation of the criteria:

- **Compliance with regulations: The criteria shall comply with regulations.**

- **Scope: The criteria shall cover the quality management systems of all vocational education and training providers in all forms of VET provision.**

- **User-orientation: The criteria shall be applicable to the evaluation of different education providers, who are in different stages of quality management. The criteria shall not limit the education providers' opportunity to independently choose their own quality management procedures and tools.**

- **Trust: The criteria shall not take a stand on education providers' operational activities. Education providers are responsible for demonstrating operational compliance with the criteria.**

- **Openness and transparency of activities: The criteria shall be available to all, and education providers shall be informed of them. Stakeholder groups shall also participate in the different stages of the process. Another principle is that the evaluation results and the process shall be public and the results must be easily accessible.**

- **Quality consistency and striving for excellence: The quality management system shall operate in a way that will ensure the legality of operations as well as the attainment of prerequisites for providing VET and objectives of educational policy. The criteria encourage continuous quality improvement (four levels: absent, emerging, developing, advanced).**

- **Innovation, ability to reform and learn from others: Quality management is expected to demonstrate operational openness and the ability to recognise good practices and processes.**

2.3 Targets and criteria of the evaluation

This evaluation was based on the set of criteria used by education providers in their self-evaluations. Consequently, the evaluation of VET quality management systems was criteria-based. The set of criteria used in the evaluation is shown in a matrix, which determines both the targets of evaluation and the criteria used as basis for the evaluation.

The evaluation areas and evaluation items reflect the different stages of systematic quality management (planning, implementation, evaluation, improvement), the so called quality circle depicted in Figure 1. In addition, the different core duties of providers were also included in the evaluation areas. The focus has been on the extent to which quality management encompasses the core duties. The quality management methods used by the providers were not evaluated.

The set of criteria includes 131 evaluation items. There were 13 evaluation areas, each of which contained a minimum of four and maximum of 15 evaluation items. The majority of the evaluation items (f = 97, 74 %) were related to the quality management of basic tasks.
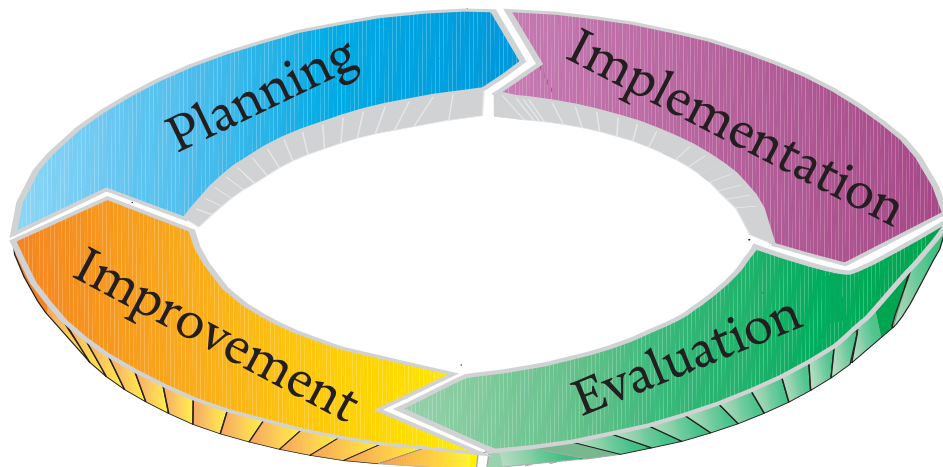
FIGURE 1. Quality management as a continuous process

The evaluation criteria describe the development stage of quality management systems (table 1). The evaluation criteria have been graded on a scale of four different development stages (absent, emerging, developing, advanced). Therefore, the evaluation criteria help provide information about the depth of quality management.

The complete set of quality criteria (only in Finnish) can be found at: karvi.fi/app/uploads/2015/10/Laatujarjestelmien_kriteerit.pdf.

TABLE 1. Targets and criteria of the evaluation[1]

TARGETS OF EVALUATION	EVALUATION CRITERIA				Evaluation of own status and demons-tration
	Absent	Emerging	Developing	Advanced	
1 QUALITY CULTURE AND QUALITY MANAGEMENT					
Quality management as part of the education provider's management system, operations management and operation					
Objectives, division of duties, and responsibilities in quality management					
Participation of stakeholder groups and partners					
Documentation					
Transparency of quality management and communication					
2 STRATEGIC MANAGEMENT AND OPERATIONS MANAGEMENT					
Quality management as part of strategic planning, management and operations management					
Commitment of the management and management of quality assurance					
Strategy process					
Implementation of the strategy					
Information management as part of management and operations management					
Utilisation of information collected from the operating environment, incl. monitoring, evaluation and research data					
Ensuring that economic and operational requirements are met					
Provision of education					
Allocating resources					
Responsibility and promoting sustainable development					
Sustainable development as part of quality management system					
Safety management as part of quality management system					
Effectiveness					
3 PERSONNEL AND OTHER EDUCATIONAL ACTORS					
Personnel's commitment to achieving the objectives					
Competence of management and staff					
Developing the competence in quality management					
Workplace instructors/trainers, evaluators of examinations and vocational competence demonstrations					
Wellbeing at work					

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1   This evaluation specified the content of evaluation targets and criteria.

4 QUALITY MANAGEMENT OF CORE DUTIES AND THE SUPPORTING ACTIVITIES					
4.1 QUALITY MANAGEMENT OF CORE DUTIES AS A WHOLE					
Planning, implementation, evaluation and improvement of education provider's core duties as a whole - Vocational education organised in an educational institution - Competence-based qualification organised in an educational institution (vocational upper secondary qualification, further vocational qualification, specialist vocational qualification) - Apprenticeship training (vocational upper secondary qualification, further vocational qualification, specialist vocational qualification, non-degree education) - Preparatory training - Other activities, e.g. workshop activities, project activities and paid services (incl. labour policy training, in-service training) - Support services for students - Development, guidance and support tasks in special education institutions					
4.2 EDUCATION ORGANISED AS VOCATIONAL UPPER SECONDARY EDUCATION AND TRAINING IN AN EDUCATIONAL INSTITUTION					
Planning and implementation of education					
4.3 ORGANISATION OF COMPETENCE-BASED QUALIFICATIONS AND THE RELATED PREPARATORY TRAINING					
Organisation of competence-based qualifications - Contracts and plans on arranging competence-based qualifications - Organisation of examination events - Evaluation of competence tests					
Individualisation					
Acquiring necessary vocational competence (preparatory training)					
4.4 APPRENTICESHIP TRAINING					
Ensuring compliance with the requirements for apprenticeship training and planning apprenticeship training - Individual study programme and indivi-dualisation - Consideration and accreditation of previously acquired skills - Theoretical studies - Central duties - Responsible trainers - Implementation of apprenticeship training - Training preparing for competence-based qualification/curriculum-based training - Studies organised at the workplace in connection with practical work tasks - Theoretical studies - The impact of apprenticeship training					

4.5 OTHER EDUCATION (PREPARATORY TRAINING, OTHER NON-DEGREE EDUCATION, WORKSHOP ACTIVITIES)					
Planning and implementation of education - Curriculum - Learning, workplace learning - Individual study plan/programme - Individualisation - Guidance to education and working life					
4.6 PAID SERVICES (INCL, LABOUR POLICY TRAINING, IN-SERVICE TRAINING)					
Planning and implementation					
4.7 SUPPORT SERVICES FOR STUDENTS					
Support services for students e.g. student health care services, guidance services, student administration, educational safety,					
4.8 DEVELOPMENT, GUIDANCE AND SUPPORT TASKS OF SPECIAL EDUCATION IN VOCATIONAL SPECIAL EDUCATION INSTITUTIONS					
Planning and implementation					
5 EVALUATION, FEEDBACK AND RESULT DATA					
Acquisition of evaluation, feedback and result data					
Use of evaluation, feedback and result data					
Communication of evaluation, feedback and result data					
Evaluation of quality management system					
6 IMPROVEMENT					
Comprehensive view of development needs and development work					
Learning from own operations and the operations of others					
Innovativeness and ability to reform					
Development of quality management system					

The working group on quality management appointed by the Ministry of Education and Culture steered national evaluation by determining an acceptable level for each evaluation item. This acceptable level served also as a criterion in the national evaluation of the level of each education provider's quality management system. When performing their own evaluations, the education providers were not aware of this predetermined acceptable level used in the external evaluation.

Evaluation framework and process

This chapter presents the evaluation framework, central evaluation questions and evaluation phases regarding VET providers' quality management systems.

3.1 Evaluation framework and questions

The evaluation of VET providers' quality management systems is based on the evaluation framework presented in figure 2.
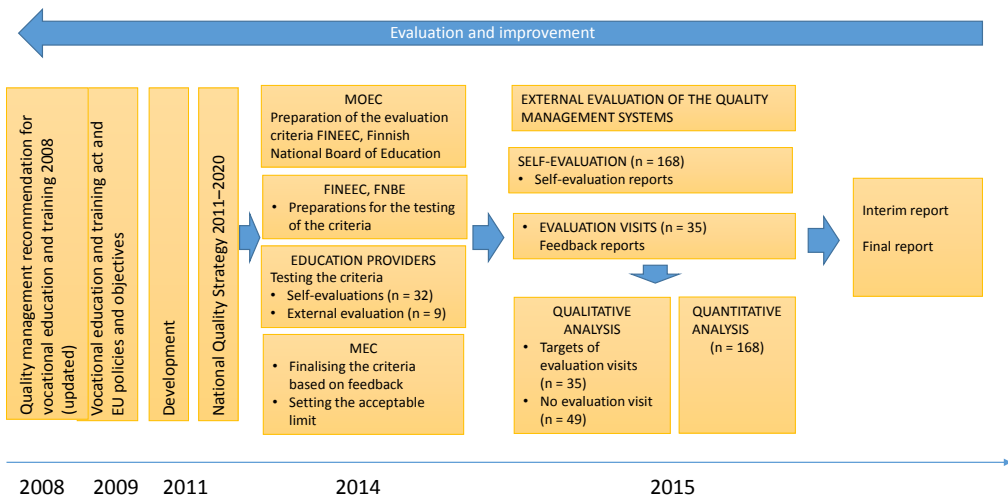

FIGURE 2. The evaluation framework for VET providers' quality management systems

Evaluation questions:

- To what extent do the education providers have a well-functioning quality management system in place, when the system is analysed as a whole and by evaluation area?
- How does the scope of education providers' quality management systems and the depth of quality management vary with different background variables?
- To what extent do the education providers perform above or below the acceptable limit set for the quality management system according to evaluation area?
- What are the central strengths and development needs in education providers' quality management systems?
- What are the most typical features of education providers' quality management systems?
- How reliable were the evaluation results based on education providers' self-evaluations?

3.2 Evaluation process and the organisation of self-evaluation and external evaluation

The evaluation of quality management systems was carried out according to the process presented in figure 3 and the phases described below.

Distribution and utilisation of the results

11/2015 (FINEEC)
* Publishing the results
* Feedback event

6-11/2015 (FINEEC, FNBE)
* Feedback reports
* Self-evaluation results to the FNBE website
* Interim report and final reports

4--5/2015 (FINEEC, FNBE)
* Evaluation visits (n = 35)

1-3/2015 (Education providers)
* Self-evaluation, Survette (n = 168)
* 3/2015 (MEC)
* Setting the acceptable level

12/2014 (FINEEC, FNBE)
*Notification and instructions to education providers
*Regional orientation events, familiarisation with the criteria

6/2012- 12/2014 (MEC, FINEEC, FNBE)
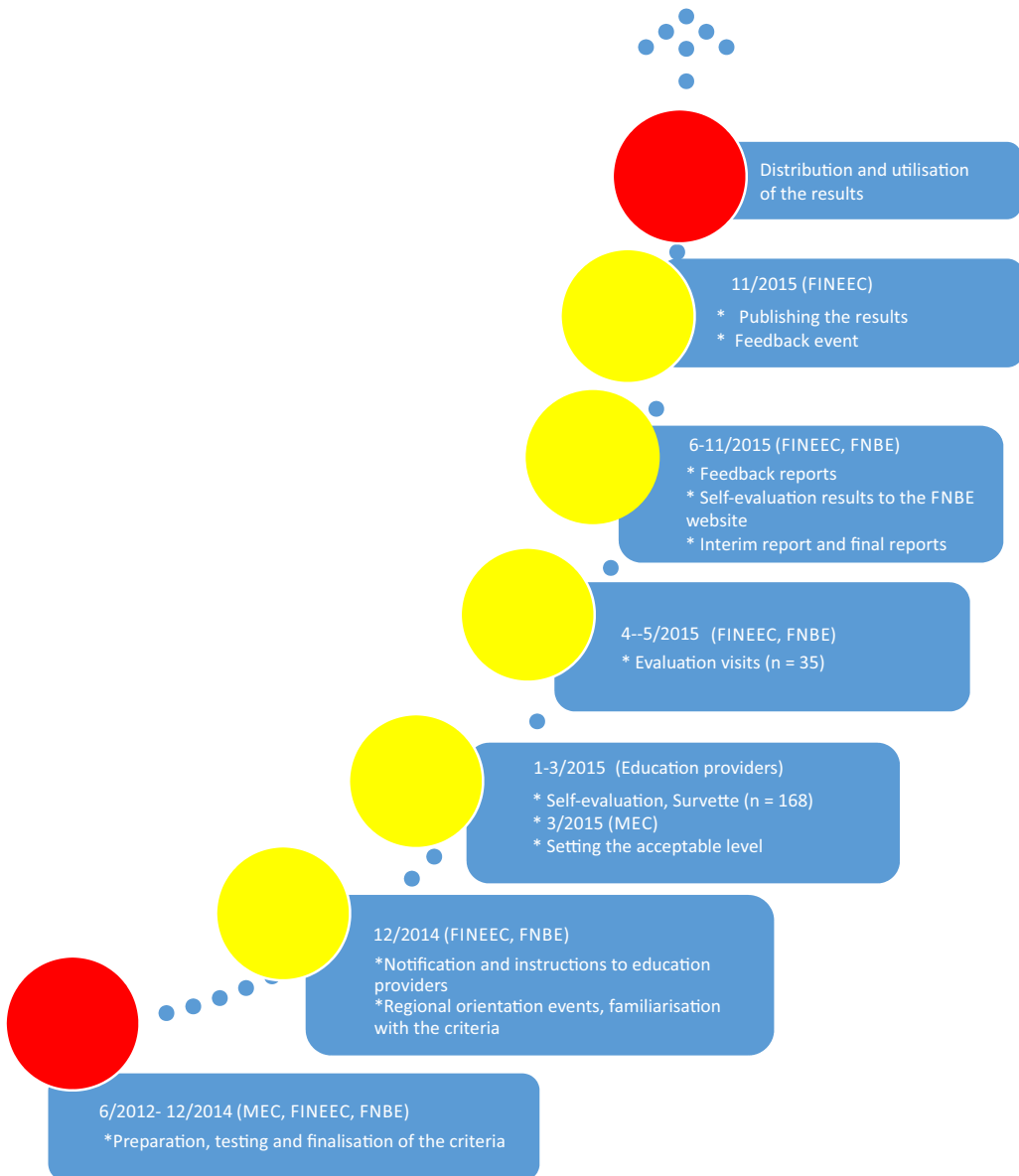*Preparation, testing and finalisation of the criteria

FIGURE 3. Evaluation process and the responsibilities of different parties

In the first phase of the evaluation process (2012–2014), the working group appointed by the Ministry of Education and Culture prepared the criteria for self-evaluation, and the criteria were tested by voluntary education providers (n = 32) in 2014. The test also included evaluation visits (n = 9). Experiences gained from evaluation pilots were utilised when the evaluation criteria and process were finalised.

- The second phase of the evaluation started at the end of 2014, when the Ministry of Education and Culture informed education providers of the launch of the evaluation and of the role, obligations and schedule set for education providers. At the beginning of 2015, education providers were provided with a self-evaluation guide for VET providers' quality management systems (Opas ammatillisen koulutuksen laadunhallintajärjestelmien itsearviointiin 2015) prepared by the Finnish National Board of Education and the Ministry of Education and Culture, which included, for example, a description of the principles of the preparation and use of the criteria and of the self-evaluation process.

- The basic idea was that education providers and others participating in the evaluation would familiarise themselves with the criteria and the process in advance. Familiarisation was promoted, for example, with a quality network, piloting, and national and regional orientation events. Evaluation was supported by organising six regional orientation events in collaboration with local education providers, and by organising three events focusing on the use of the criteria. The Finnish National Board of Education was in charge of steering the self-evaluation process.

- In the third phase, education providers evaluated their own quality management systems during the period from 1 January to13 March 2015. Evaluation data was entered into the Survette system maintained by the Finnish National Board of Education. The evaluation emphasised the participation of different parties (management, staff, students, customers, partners and other stakeholder groups) and the complexity of the evaluation. Therefore, the education providers also had the opportunity to utilise the results of their own evaluations during the evaluation process.

- During the third phase (March 2015), the working group on VET quality management set an acceptable limit for all the evaluation areas (total of 13) and items (total of 131), which the education providers' quality management systems had to meet in order to demonstrate that the system was effective and promoted continuous improvement of quality.

- Evaluation visits (n = 35) were carried out in the fourth phase. The evaluation visits were planned in collaboration with the Finnish National Board of Education. Preparation for the evaluation visits included, for example, the recruitment and orientation of evaluators. The purpose of the evaluation visits was to ensure the reliability of self-evaluations, and the visits were carried out during April–May 2015. At the end of the evaluation visits, education providers received verbal feedback regarding the central interpretations made by the evaluation group.

- In the fifth phase of the evaluation (June–September 2015), written feedback reports were prepared for those education providers, who were subject to evaluation visits. In addition, results of the self-evaluation were published in June 2015 on the website of the Finnish National Board of Education, in a manner determined by the Ministry of Education and Culture. Thus, education providers had the opportunity to compare their results with other education providers. This procedure also created opportunities for learning from other providers' good practices.

- The Finnish Education Evaluation Centre (FINEEC) submitted the interim report to the Ministry of Education and Culture in June and the final report in November 2015.

- In the sixth phase (November 2015), FINEEC published the results of the evaluation and organised a feedback event for education providers. Publishing the results creates the opportunity for different parties to utilise the results in the development of quality management systems of VET providers and VET in general, and in the national steering of quality assurance.

3.3 External evaluation

The external evaluation was mainly based on education providers' self-evaluation reports that were been entered into the information system maintained by the Finnish National Board of Education and inspected by the Finnish National Board of Education prior to delivery to FINEEC. Like the self-evaluation, the external evaluation was carried out according to the set of criteria. In addition, the external evaluation utilised the criterion presented above describing the acceptable level for quality management (performance above or below the acceptable level either in some or all areas or partially). The acceptable level was determined both for evaluation areas (6 + 8 evaluation areas)2 and for each evaluation item (n = 131)[2, 3.] Therefore, determining an acceptable level for quality management made it possible to deduce which education providers had exceeded the level. Furthermore, it became possible to determine the characteristics of those performing above or below the level. The two groups that were formed in this manner were used as control groups when analysing the coverage of quality management systems and the depth of quality management.

Organisation and responsibilities of external evaluation

According to decision of the Ministry of Education and Culture (OKM/3/521/2015), FINEEC carried out the external evaluation of the education providers' quality management systems partly in collaboration with the Finnish National Board of Education. FINEEC appointed an evaluation team which was in charge of analysing and reporting the results and of the evaluation visits. The members of the evaluation team were:

Anu Räisänen, Counsellor of Education, FINEEC, Head Evaluator, Chair of the Evaluation team
Tarja Frisk, Senior Advisor, FINEEC, Evaluator and Head Evaluator
Risto Hietala, Evaluation Expert, FINEEC, Method Specialist
Marjut Huttunen, Quality Manager, Luovi Vocational College, Head Evaluator
Aila Korpi, Director of Education, Luksia, Evaluator (FINEEC from 1 August 2015)
Leena Koski, Counsellor of Education, Finnish National Board of Education, Head Evaluator

Evaluation teams of 4–6 members were in charge of the evaluation visits, and the teams consisted of a head evaluator and other experts of quality management in vocational education (appendix 1).

The method specialist was responsible for producing comparative material for the evaluation visits and national evaluations, and for the statistical analyses.

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3   The acceptable level is demonstrated in the set of evaluation criteria: (karvi.fi/app/uploads/2015/10/ Laatujarjestelmien_kriteerit.pdf
4   The evaluation report shows how the acceptable level set by the Ministry of Education and Culture's working group on quality management is met and exceeded according to evaluation areas.

3.4 Evaluation visits

The purpose of the evaluation visits was to ensure the reliability of education providers' self-evaluations and to produce complementary information about the education providers' quality management systems as well as their effectiveness and compliance with the set requirements. Supporting education providers in the development of their quality management systems was also set as an objective.

The targets of evaluation visits were selected by random sampling from the group of VET providers participating in the evaluation (N = 168). The sampling was carried out in two phases: first, the education providers were divided into stratums (language, type of educational institution), of which 35 providers (21 %) were selected by systematic sampling as targets for external evaluation visits (table 2). This procedure was used to ensure optimal representation of different education providers in the sample. Providers who had not performed the self-evaluation were not chosen as targets of the evaluation visits.

Principles applied in the organisation of evaluation visits

- The evaluation visits were carried out between 8 April and 22 May 2015.
- Education providers were informed of the evaluation visit and the principles applied to the organisation of the visit in March 2015. Being chosen as a target for evaluation visit was considered binding.
- FINEEC prepared instructions and a preliminary schedule for the evaluation visits, but the head evaluator discussed matters related to the organisation in practice with the education provider as necessary.
- The evaluation was based on the education providers' own self-evaluation reports and on other material requested from the education providers.[4]
- The duration of the evaluation visits was 1–2 days. The evaluation visits were carried out by an evaluation team consisting of 4–6 members. Prior to the evaluation visits, the evaluation team prepared for each evaluation visit.
- Knowledge of both vocational education and quality management systems, as well as evaluation experience, were highlighted in the selection of evaluators, who took part in the evaluation visits (appendix 1). The evaluators received orientation for the task from FINEEC and the Finnish National Board of Education prior to the evaluation visits.
- During an evaluation visit, interviews were carried out with representatives of the education provider, management, teachers, other staff, working life and students, as well as representatives of other stakeholder groups that were essential for the operation of the specific education provider. In addition, the evaluators were introduced to the operating environment, information systems and documents.
- The head evaluator was in charge of each evaluation visit and the preliminary preparations, as well as of the feedback given to the education provider and the feedback report. However, each evaluation team was jointly responsible for the evaluation visit.

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5   Material provided by the education providers: description of the division of tasks and responsibilities related to quality management, organisation chart, education provider's strategy documents, content structure of the system promoting quality management and continuous improvement of quality, process chart and examples of process descriptions, partnership strategy or similar, staff development plan, and the latest self-evaluation report and development plan. In addition, material requested by the head evaluator.

- Led by the head evaluator, the evaluation team gave verbal feedback at the end of the evaluation visit. Evaluation groups submitted feedback reports to the providers in July 2015. A feedback report includes an interpretation of the status of the specific education provider's quality management system in relation to the limits set for the evaluation areas. In addition, the report includes the evaluation group's view of the quality management strengths and development needs by evaluation areas.

TABLE 2. VET providers and targets of evaluation visits according to background variables

VOCATIONAL EDUCATION PROVIDERS		TOTAL		TARGETS OF VISITS	
Background variable	Classes	N	%	N	%
Type of educational institution	vocational institution	87	52	20	57
	folk high school	37	22	6	17
	sports institute	10	6	2	6
	vocational special education institution	6	4	2	6
	specialised vocational institution	21	13	3	9
	music school	7	4	2	6
Number of students	under 500 students	115	68	23	66
	over 500 students	53	32	12	34
Language of instruction	Finnish	161	96	33	94
	Swedish	7	4	2	6
Type of ownership	private	122	73	24	69
	State	1	1	-	-
	municipality	10	6	3	9
	joint municipal authority	35	21	8	23
Number of educational fields	one discipline	80	48	13	37
	multidisciplinary	88	52	22	63
Duration of systematic quality management	less than 3 years	41	24	8	23
	3–5 years	32	19	5	14
	6–10 years	28	17	4	11
	more than 10 years	67	40	18	51
Framework and procedures for quality management	ISO, CAF and/or EFQM other	123 45	73 27	26 9	74 26
Form of education provision	vocational upper secondary education and training organised in an educational institution[6]	12	7	2	6
	education based on competence-based qualification[7]	21	13	3	9
	education based on competence-based qualification and apprenticeship training	18	11	3	9
	vocational upper secondary education and apprenticeship training organised in an educational institution	2	1	1	3
	institutional vocational upper secondary education and education based on competence-based qualification	46	27	11	31
	all forms of education provision	60	36	15	43
	other form of education provision[8]	9	5	-	-

6   Education organised as vocational upper secondary education and training in an educational institution
7   Organisation of competence-based qualifications and the related preparatory training (vocational upper secondary qualification, further vocational qualification, specialist vocational qualification)
8   Other education (preparatory training, other non-degree education, workshop activities)

4

Methods for analysing the results

This chapter presents the methods used in the analysis of evaluation data.

Number of evaluation items specific to each VET provider

The working group on quality management appointed by the Ministry of Education and Culture had determined an acceptable level for each evaluation item. Education providers evaluated only those evaluation areas and items that were related to their operations. Thus, the number of evaluation items subject to each provider's self-evaluation varied from 41 to 131. The provider-specific distribution of evaluation targets is shown in figure 4.
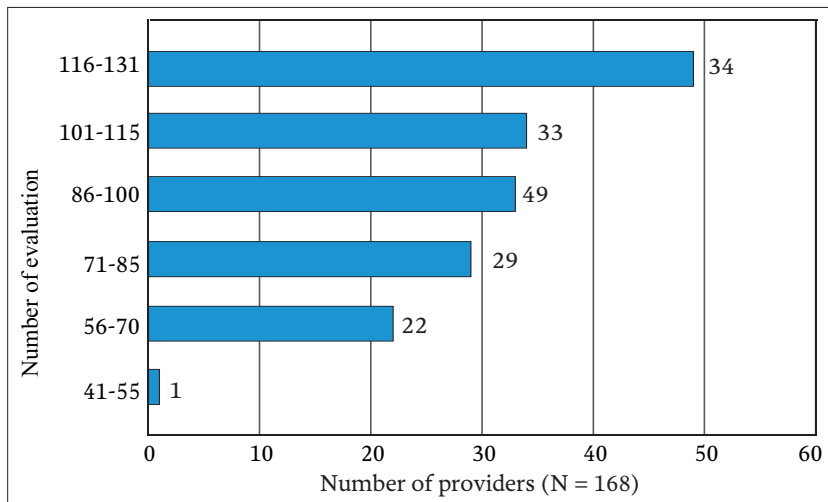

FIGURE 4. Provider-specific distribution of evaluation items

Determination of VET provider-specific levels and harmonisation by evaluation areas

Based on the VET providers' self-evaluations, the average values of the relevant evaluation items were calculated for each evaluation area. Similarly, equivalent averages were produced for different evaluation areas based on the acceptable level for the targets of evaluation.

As the acceptable level varied according to evaluation area, it was harmonised through standardisation. Standardisation was carried out so that the differences between the average values presented above were calculated by education provider and evaluation area, and these differences were compared to the acceptable level. The result was a standardised number in which the acceptable level takes the value 0 and a deviating figure depicts the size of the deviation in relation to the acceptable limit. The sign of the value shows the direction of the deviation. In the results, this figure is presented as a percentage that describes an education provider's quality management result in relation to the acceptable level.

Analysis of the results according to background variables

The status of education providers' quality management systems was studied according to background variables. The first part describes the extent to which education providers belonging to different background variable groups exceed the acceptable level. The second part presents the profiles of background variable groups, which are then compared to the acceptable level by evaluation area. In the third stage, the report examines the uniformity of education providers in different background variable groups. In addition, the relations between different evaluation areas are illustrated with Spearman's rank correlation coefficient. Logistic regression analysis is used to discover the background factors that provide an explanation for exceeding the acceptable level. The reliability of evaluation locations placed in different evaluation areas was analysed with Cronbach's alpha coefficient.

Qualitative analysis of the strengths and development needs of quality management systems

The evaluation team performed the qualitative analysis based on the education providers' self-evaluation reports (n = 49) and feedback reports provided to the targets of evaluation visits (n = 35). This interpretative analysis based on two different sets of material was used to produce information about the strengths and development needs of quality management according to evaluation areas. The self-assessment material was selected by sampling, whereas all feedback reports were analysed. Consequently, the mentioned materials together covered the quality management systems of 84 education providers, which corresponds to approximately 50 % of all education providers who performed the self-evaluation.

The material described above was analysed according to a predetermined evaluation procedure so that the reports were divided between the evaluation team members, and each evaluator evaluated 9–10 self-evaluation reports and all of the feedback reports in relation to evaluation items agreed

upon separately. Evaluators highlighted 1–2 individual strengths and 1–2 development areas for each evaluation item included in a self-evaluation or feedback report, after which the material was categorised into entities related to the same theme. The resulting material was used to produce two separate sets of material, one of which was used to compare the central characteristics of those performing above or below the acceptable level according to evaluation items, and the other to compare the central characteristics of the providers in these groups between the targets of evaluation visits and those excluded from the evaluation visits.

PART II
RESULTS

The status of vocational education providers′quality management systems

This chapter examines the results of the evaluation of quality management systems. First, we examine how education providers have on the whole achieved the acceptable level set for quality management systems. Next, attainment of the acceptable level is examined according to background variables and evaluation areas. Finally, the central characteristics of those exceeding or falling below the acceptable level are studied.

5.1 Overall picture

All VET providers (N = 183) were invited to take part in the evaluation and 168 of them participated. Thus, the participation rate was relatively high (92 %). Respectively, 15 (8 %) education providers did not take part in the evaluation (appendix 2). These providers in their background and educational mission, but the common characteristic between them was their small size with regard to the number of students they had. This had very little impact on the group as a whole, and so the group of education providers included in the evaluation could be considered representative of the general group of VET providers.

Evaluation of education providers' quality management systems in relation to the acceptable level

The number of evaluation items evaluated by each education provider served as the basis for examining how the providers exceeded the acceptable level set for quality management. On this basis, the providers were classified into three groups. The first group consisted of those providers, who exceeded the acceptable level in less than 60 % of the evaluation items, whereas the second group exceeded the level in 61–80 % of the evaluation items and the third group in over 80 % of the evaluation items.
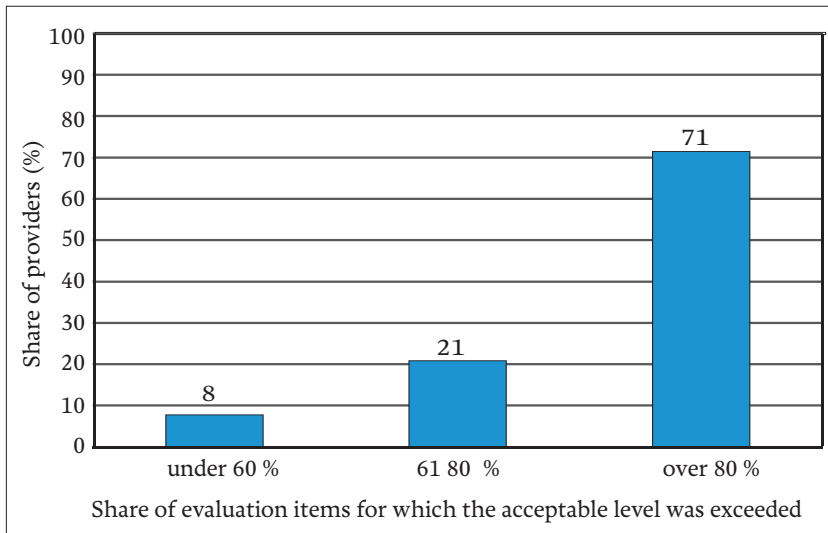
FIGURE 5. Distribution of education providers according to the share of provider-pecific evaluation items for which the acceptable level was exceeded.

Based on the self-evaluations, a mean value was calculated for each evaluation area of each education provider. Similarly, an average was calculated for the acceptable levels of the evaluation items according to evaluation areas. Figure 6 shows the education providers' mean values (mv) according to evaluation areas and the variation (minimum/maximum) in relation to the acceptable limit.
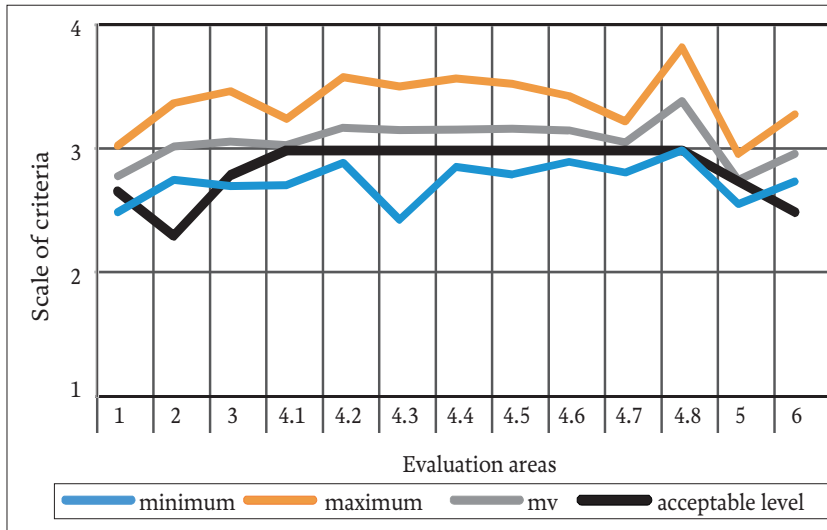
FIGURE 6. Mean values for evaluation[9] minimum and maximum values in the variation range, and the acceptable level

Provider-specific deviations in relation to the acceptable level are presented in figures 7 and 8. The best education providers (n = 4) exceeded the acceptable value at an interval of 41–50 %, and the weakest providers (n = 2) fell short of the acceptable limit by 31–40 %. 20 % of the education providers performing below the acceptable level were relatively close to the acceptable level. Only a small number of education providers (10 %) had significant difficulties in achieving the acceptable level.

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9   1   Quality culture and quality management
    2   Strategic management and operations management
    3   Personnel and other education actors
    4.1 Quality management of core duties as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special education institutions
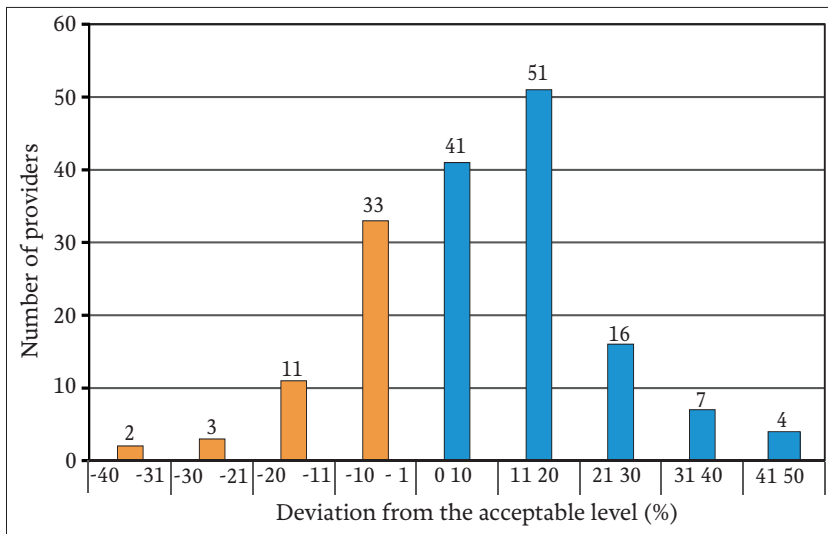   5   Evaluation, feedback and result data
    6   Improvement

FIGURE 7. Distribution of education providers that exceeded or fell below the acceptable level
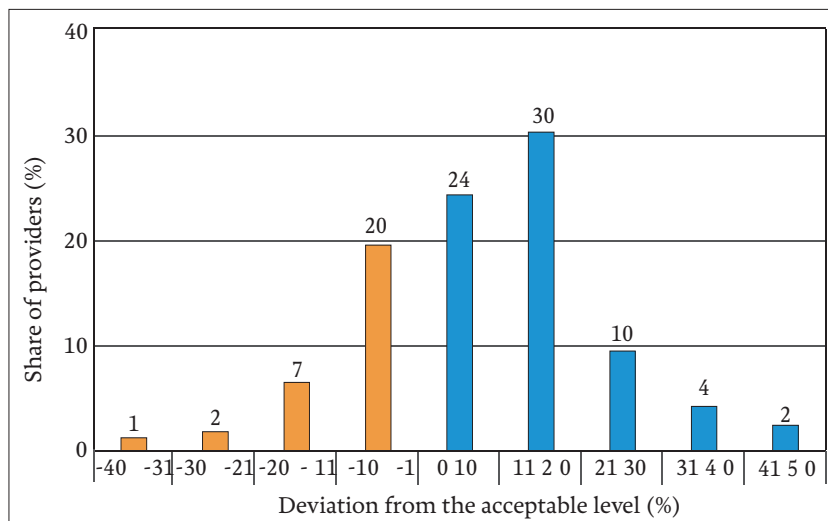

FIGURE 8. Relative share of education providers that exceeded or fell below the acceptable level

According to the self-evaluations, education providers (N = 168) exceeded the acceptable level on average in all evaluation areas (figure 9). According to the education providers' self-evaluations, the status of quality management is better in the evaluation areas of 'strategic management and operations management' and 'improvement' than in the other evaluation areas. The level of quality management is also high in the evaluation area of 'development, guidance and support tasks in vocational special education' (only providers appointed the specific special task in special education). The acceptable level for 'strategic management and operations management' is exceeded on average by over 30 %, and the corresponding excess in the area of 'improvement' is slightly less than 20 %.

Although on average the acceptable level was exceeded, the status of quality management was, on the basis of the self-evaluations, weakest in the evaluation areas dealing with 'evaluation , feedback and result data' and 'quality management of basic tasks as a whole
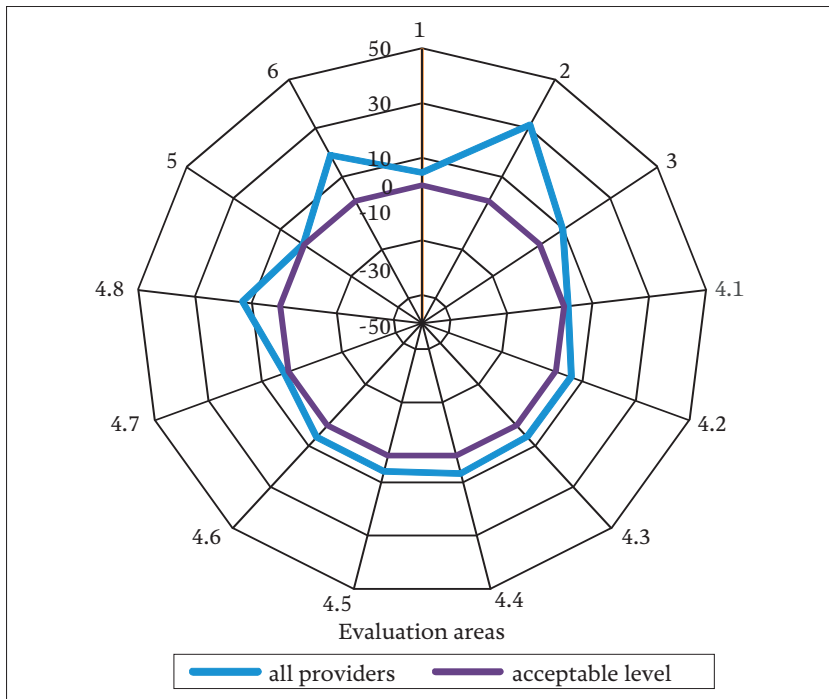

FIGURE 9. Average level of VET providers' quality management according to evaluation areas[10]

The biggest average excesses of the acceptable level occurred in the evaluation areas of 'strategic management and operations management, 'improvement', and 'development, guidance and support in special education institutions' (figure 10). Those falling below the acceptable level fell below the level on average in all other evaluation areas except for 'strategic management and operations management'. The biggest average shortfalls of the acceptable level occurred in the evaluation areas of 'quality culture and quality management', 'evaluation, feedback and result data', and 'basic tasks.

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10 1   Quality culture and quality management
    2   Strategic management and operations management
    3   Personnel and other education actors
    4.1 Quality management of core duties as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special education institutions
    5   Evaluation, feedback and result data
    6   Improvement
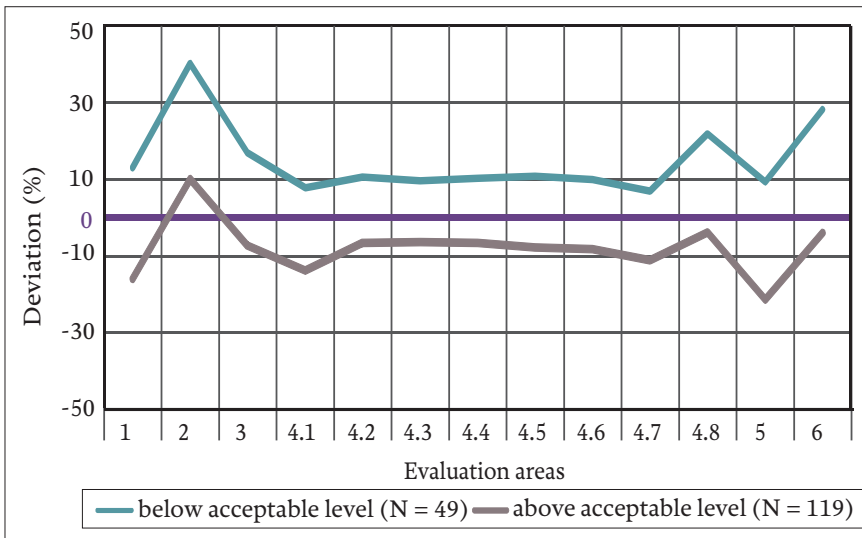
FIGURE 10. Profiles of education providers that on average exceeded or fell below the acceptable level according to evaluation area[11]

The education providers that exceeded the acceptable level were as a group more homogeneous than the education providers that fell below the acceptable level (figure 11). The group of providers that fell below the acceptable level exhibited differences in particular in the following evaluation areas: 'quality culture and quality management', 'personnel and other educational actors', 'apprenticeship training', 'evaluation, feedback and result data', and 'improvement'. There were also three evaluation areas that were emphasised among the providers exceeding the acceptable level: 'quality culture and quality management', 'support services for students', and 'evaluation, feedback and result data'. In these three areas, there were significantly greater differences between the education providers in comparison to the other evaluation areas.

11 1 Quality culture and quality management
   2 Strategic management and operations management
   3 Personnel and other education actors
   4.1 Quality management of core duties as a whole
   4.2 Education organised as vocational upper secondary education and training in an educational institution
   4.3 Organisation of competence-based qualifications and the related preparatory training
   4.4 Apprenticeship training
   4.5 Other education (preparatory training, other non-degree education, workshop activities)
   4.6 Paid services (incl. labour policy training, in-service training)
   4.7 Support services for students
   4.8 Development, guidance and support tasks of special education in vocational special education institutions
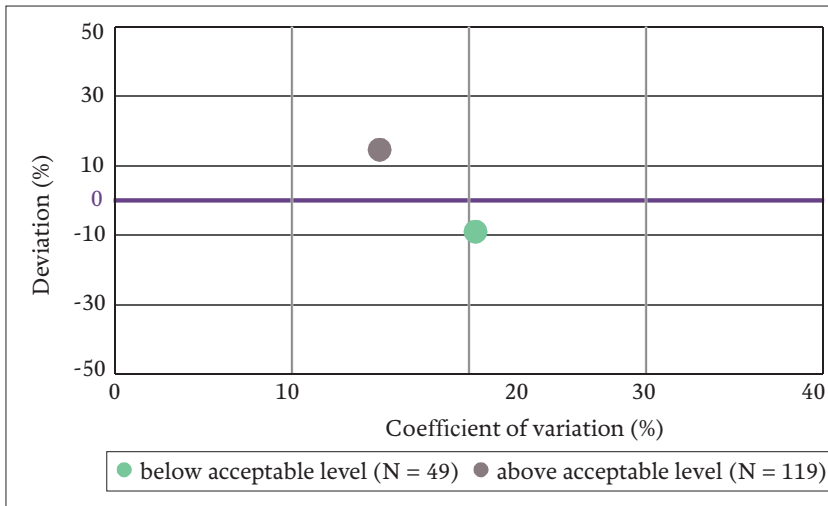   5 Evaluation, feedback and result data
   6 Improvement

FIGURE 11. Average level of quality management and variation in the groups of providers that exceeded or fell below the acceptable level

5.2 Status of the quality management systems by background variables

This section describes the status of education providers' quality management systems according to background variables.

Table 3 shows the number of education providers that exceeded or fell below the acceptable level by background variables.

TABLE 3. Number of education providers that exceeded or fell below the acceptable level by background variables

Background variables	Classes	TOTAL		RELATION TO THE ACCEPTABLE LEVEL			
				Below		Above	
		N	%	N	%	N	%
Type of educational institution	vocational institution	87	52	19	22	68	78
	folk high school	37	22	15	41	22	59
	sports institute	10	6	4	40	6	60
	vocational special education institution	6	4	3	50	3	50
	specialised vocational institution	21	13	5	24	16	76
	music school	7	4	3	43	4	57
Number of students	under 500 students	115	68	39	34	76	66
	over 500 students	53	32	10	19	43	81
Language of instruction	Finnish	161	96	47	29	114	71
	Swedish	7	4	2	29	5	71
Type of ownership	private	122	73	38	31	84	69
	State	1	1	0	0	1	100
	municipality	10	6	5	50	5	50
	joint municipal authority	35	21	6	17	29	83
Number of educational fields	one discipline	80	48	32	40	48	60
	multidisciplinary	88	52	17	19	71	81
Duration of systematic quality management	less than 3 years	41	24	26	63	15	37
	3–5 years	32	19	12	38	20	62
	6–10 years	28	17	3	11	25	89
	more than 10 years	67	40	8	12	59	88
Framework and procedures for quality management	ISO, CAF and/or EFQM other	123 45	73 27	31 18	25 40	92 27	75 60
Core duties	vocational upper secondary education and training organised in an educational institution[12]	12	7	5	48	7	58
	education based on competence-based qualification[13]	21	13	8	38	13	62
	education based on competence-based qualification and apprenticeship training	18	11	3	17	15	83
	vocational upper secondary education and apprenticeship training organised in an educational institution	2	1	2	100	0	0
	institutional vocational upper secondary education and education based on competence-based qualification	46	27	14	30	32	70
	all forms of education provision	60	36	12	20	48	80
	other form of education provision[14]	9	5	5	56	4	44

Type of ownership

The share of those exceeding the acceptable level for quality management varied significantly according to the type of ownership of the education provider (figure 12).
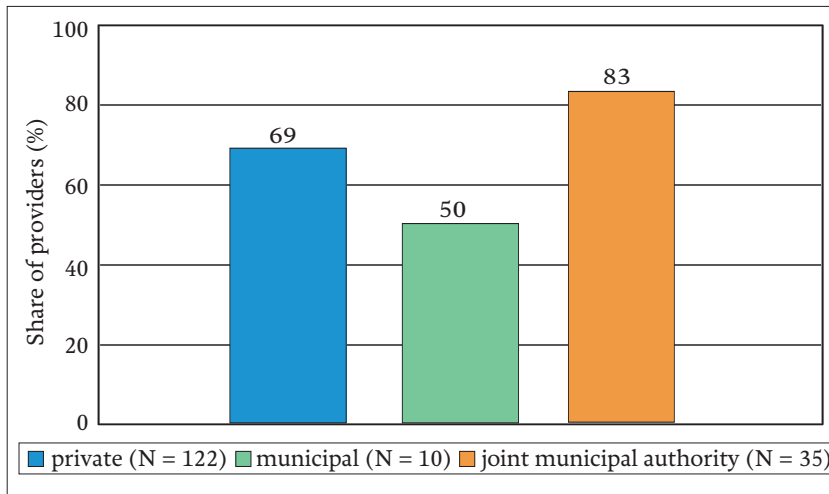

FIGURE 12. The share of VET providers that exceeded the acceptable level for quality management according to type of ownership (excluding the State)

On average, all groups of ownership type exceeded the acceptable limit best in the evaluation area of 'strategic management and operations management', in which the limit was exceeded by just over 30 % (figure 13). The acceptable level was also exceeded by almost 20 % in the evaluation area of 'improvement'.

Joint municipal authorities and private education providers exceeded the acceptable level on average in all evaluation areas. Municipal providers exceeded the acceptable level in other evaluation areas except the areas of 'quality culture and quality management', 'personnel and other educational actors', and 'quality management of basic tasks'

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12   Education organised as vocational upper secondary education and training in an educational institution
13   Organisation of competence-based qualifications and the related preparatory training (vocational upper secondary qualification, further vocational qualification, specialist vocational qualification)
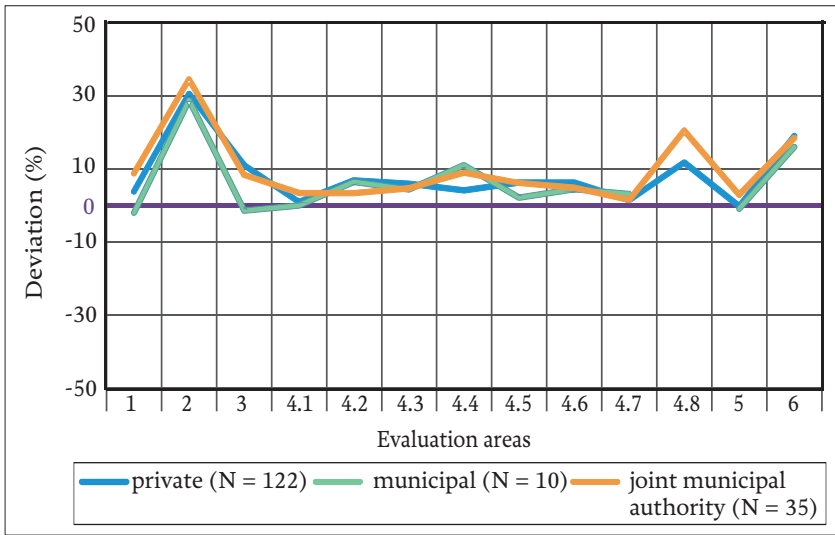14   Other education (preparatory training, other non-degree education, workshop activities)

FIGURE 13. Exceeding the acceptable level by ownership type and evaluation area[15]

Of the ownership types, joint municipal authorities were the most cohesive group. In comparison to these, the differences between providers in the private and municipally-owned groups were significantly bigger (figure 14). In relation to individual evaluation areas, the biggest average differences were found in the area of 'evaluation, feedback and result data', in which there were significantly bigger differences especially among municipally-owned education providers, but also among private providers, than there were in the group of providers owned by joint municipal authorities. There were significant differences among municipally-owned providers, particularly in the evaluation area of 'personnel and other educational actors'.

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15 1   Quality culture and quality management
    2   Strategic management and operations management
    3   Personnel and other education actors
    4.1 Quality management of core duties as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special education institutions
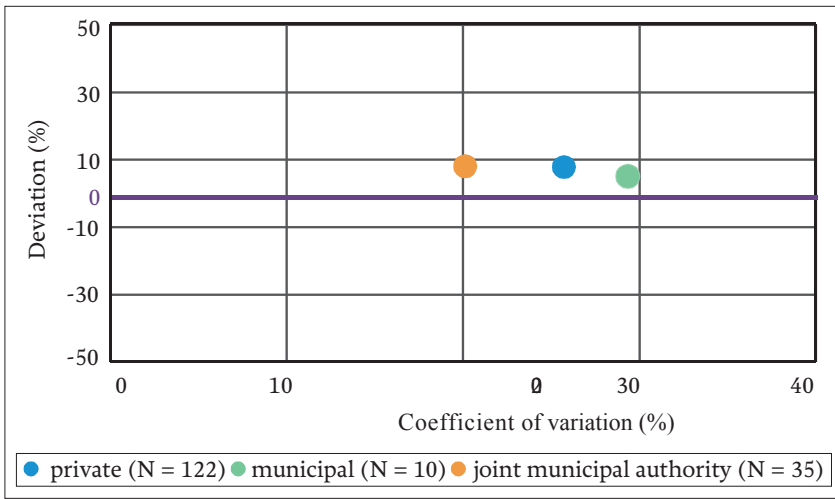   5   Evaluation, feedback and result data
    6   Improvement

FIGURE 14. Average level of quality management and variation according to ownership type

Number of educational fields

In comparison to the providers with only one discipline, a larger share of the multidisciplinary providers exceeded the acceptable level (figure 15).
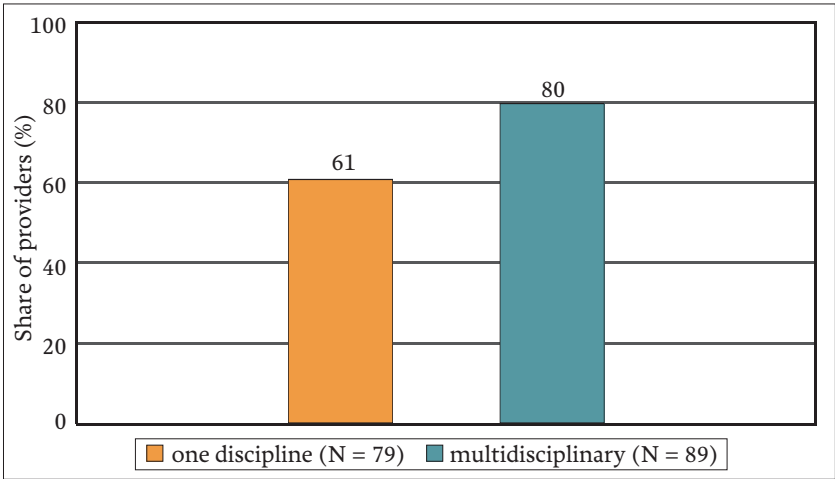

FIGURE 15. Share of providers that exceeded the acceptable level by number of disciplines

Multidisciplinary education providers exceeded the acceptable level on average in every evaluation area, and providers with one discipline exceeded it in all evaluation areas other than 'quality management of basic tasks' and 'evaluation, feedback and result data' (figure 16).
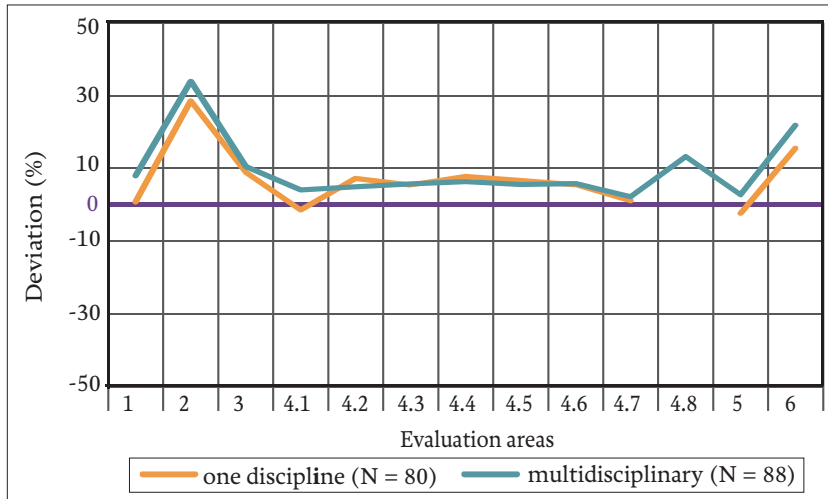

FIGURE 16. Exceeding the acceptable level by evaluation area according to number of disciplines[16]

The group of education providers that had one educational discipline was clearly more heterogeneous than the group of multidisciplinary education providers (figure 17). The biggest differences between providers with one discipline were exhibited in the evaluation areas of 'quality culture and quality management', 'organisation of competence-based qualifications and the related preparatory training', 'support services for students', and 'improvement'.

---

16 1 Quality culture and quality management
   2 Strategic management and operations management
   3 Personnel and other education actors
   4.1 Quality management of core duties as a whole
   4.2 Education organised as vocational upper secondary education and training in an educational institution
   4.3 Organisation of competence-based qualifications and the related preparatory training
   4.4 Apprenticeship training
   4.5 Other education (preparatory training, other non-degree education, workshop activities)
   4.6 Paid services (incl. labour policy training, in-service training)
   4.7 Support services for students
   4.8 Development, guidance and support tasks of special education in vocational special education institutions
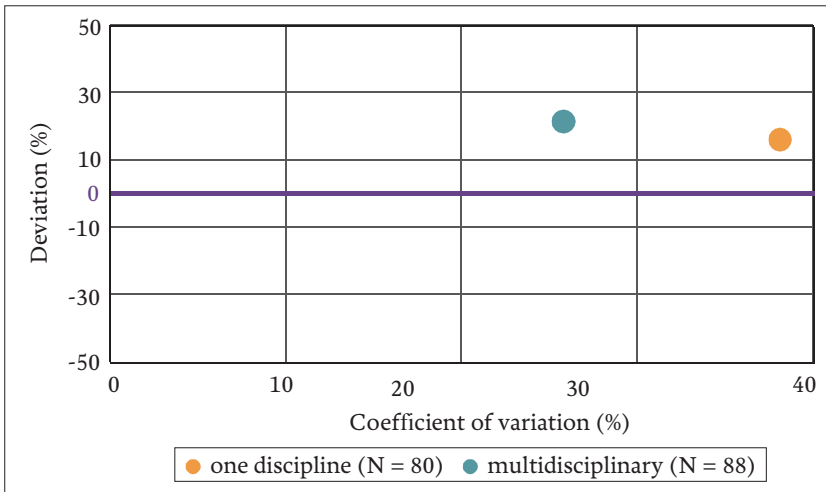   5 Evaluation, feedback and result data
   6 Improvement

FIGURE 17. Average level of quality management and variation by number of disciplines

Number of students

A majority of the education providers that had high numbers of students exceeded the acceptable level of quality management (figure 18).
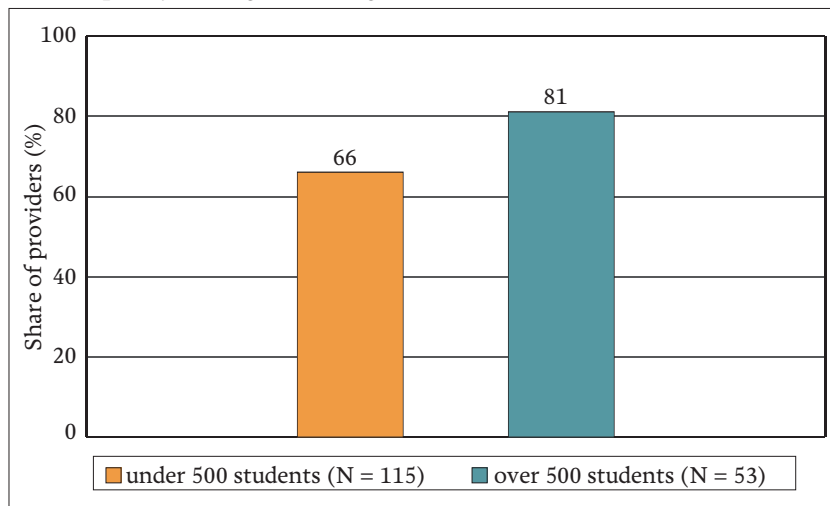

FIGURE 18. Share of providers that exceeded the acceptable level compared by the number of students

With the exception of a few evaluation areas, education providers with either under or over 500 students performed almost as well in exceeding the acceptable limit (figure 19). Whereas education providers with over 500 students exceeded the acceptable level on average in every evaluation area, the providers with less than 500 students fell on average below the acceptable level in the evaluation area of 'evaluation, feedback and result data'. The most notable differences between the groups were found in the evaluation areas of 'strategic management and operations management', 'apprenticeship training', 'support services for students', and 'evaluation, feedback and result data'. In these evaluation areas, providers with over 500 students performed better with regard to the status of quality management than providers with under 500 students.
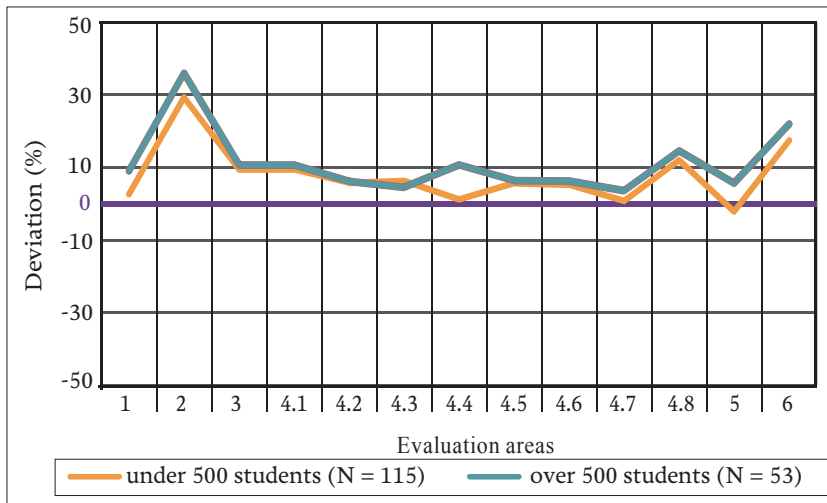

FIGURE 19. Exceeding the acceptable level by evaluation area [17] according to the number of students

On average, VET providers with large student numbers formed a more homogeneous group than providers with under 500 students (figure 20). In almost every evaluation area, the big providers performed in a more consistent way than the small providers.

17 1   Quality culture and quality management
    2   Strategic management and operations management
    3   Personnel and other education actors
    4.1 Quality management of core duties tasks as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational
        institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special
        education institutions
    5   Evaluation, feedback and result data
    6   Improvement

Differences in the group of education providers with under 500 students were found in the evaluation area of apprenticeship training and, to a slightly lesser extent, in the evaluation areas of quality culture and quality management and evaluation, feedback and result data.
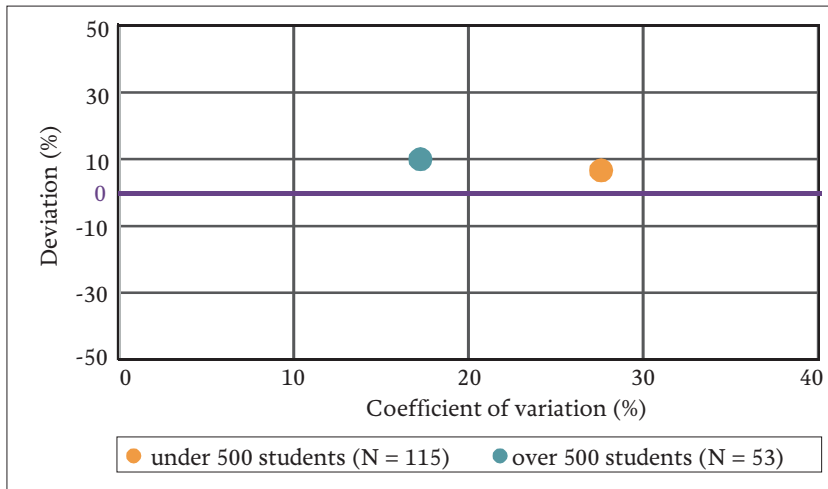

FIGURE 20. Average level of quality management and variation according to the number of students

Language of instruction

On average, an equal share of Finnish and Swedish-speaking education providers exceeded the acceptable level (figure 21).
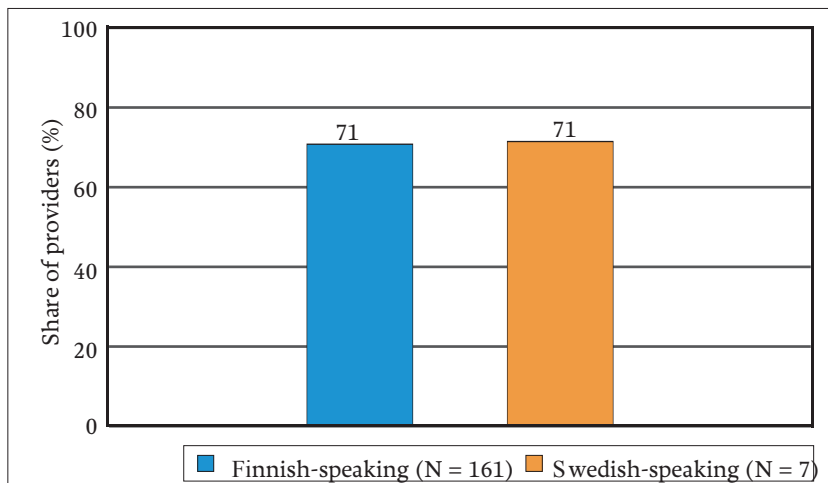

FIGURE 21. Exceeding the acceptable level by the language of instruction

Although there were no variable differences in exceeding the acceptable level for quality management between different languages of instruction, differences were found in closer examination of the individual evaluation areas. Figure 22 shows that Finnish-speaking education providers exceeded the acceptable level for quality management on average in all evaluation areas. However, Swedish-speaking providers exceeded the level on average in all evaluation areas other than in 'vocational upper secondary education in an educational institution', 'apprenticeship training', and 'evaluation, feedback and result data'. The most notable differences between the groups in exceeding the acceptable level were found in the evaluation areas of 'quality management of basic tasks as a whole', 'apprenticeship training', and 'development, guidance and support task of special education'.
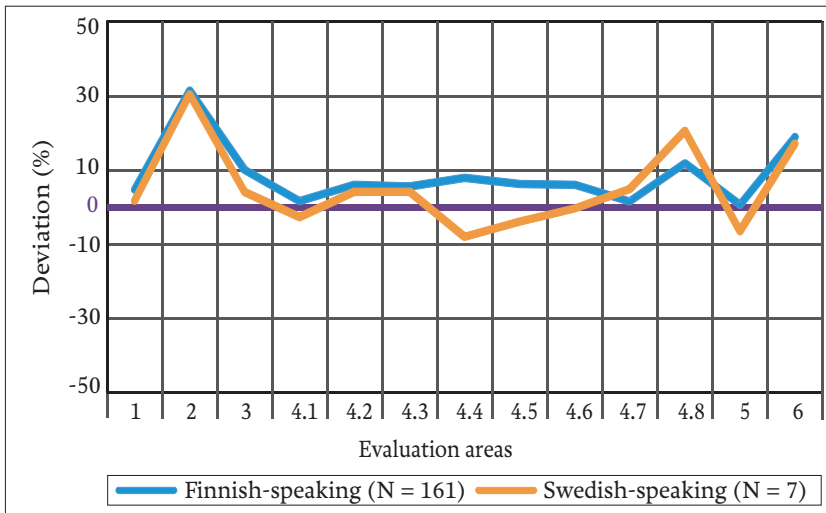

FIGURE 22. Exceeding the acceptable limit by evaluation area [18] according to the language of instruction

When the language groups were examined separately according to the size of the provider, the results changed significantly (figure 23). Swedish-speaking providers with under 500 students exceeded the acceptable level on average in the evaluation areas of 'strategic management and operations management', 'organisation of competence-based qualifications and the related preparatory training',

18 1   Quality culture and quality management
     2   Strategic management and operations management
     3   Personnel and other education actors
     4.1 Quality management of core duties as a whole
     4.2 Education organised as vocational upper secondary education and training in an educational institution
     4.3 Organisation of competence-based qualifications and the related preparatory training
     4.4 Apprenticeship training
     4.5 Other education (preparatory training, other non-degree education, workshop activities)
     4.6 Paid services (incl. labour policy training, in-service training)
     4.7 Support services for students
     4.8 Development, guidance and support tasks of special education in vocational special education institutions
     5   Evaluation, feedback and result data
     6   Improvement

'support services for students', and 'improvement'. In the other evaluation areas the average level was slightly or distinctly below the acceptable level. Finnish-speaking providers fell on average only slightly below the acceptable level in the evaluation areas of 'quality management of basic tasks as a whole' and 'evaluation, feedback and result data'.
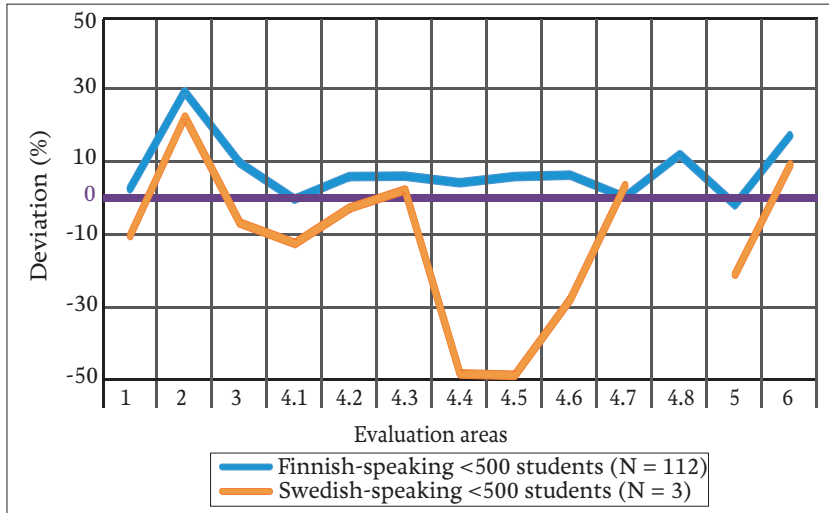

FIGURE 23. Exceeding the acceptable level by evaluation areas[19] according to the language of instruction and number of students (under 500)[20]

When the language groups were examined in the group of the providers with over 500 students, the acceptable level was exceeded on average in every evaluation area (figure 24). Consequently, the average differences between Finnish and Swedish-speaking providers were smaller in this size group . The Swedish-speaking providers' level of quality management was better than that of Finnish-speaking providers' in the evaluation areas of 'vocational upper secondary education in an educational institution', 'apprenticeship training', 'other education', 'paid services', and 'development, guidance and support tasks of vocational special education institutions'.

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19   1   Quality culture and quality management
     2   Strategic management and operations management
     3   Personnel and other education actors
     4.1 Quality management of core duties as a whole
     4.2 Education organised as vocational upper secondary education and training in an educational institution
     4.3 Organisation of competence-based qualifications and the related preparatory training
     4.4 Apprenticeship training
     4.5 Other education (preparatory training, other non-degree education, workshop activities)
     4.6 Paid services (incl. labour policy training, in-service training)
     4.7 Support services for students
     4.8 Development, guidance and support tasks of special education in vocational special education institutions
     5   Evaluation, feedback and result data
     6   Improvement
20   The small number of education providers must be taken into account in the examination.
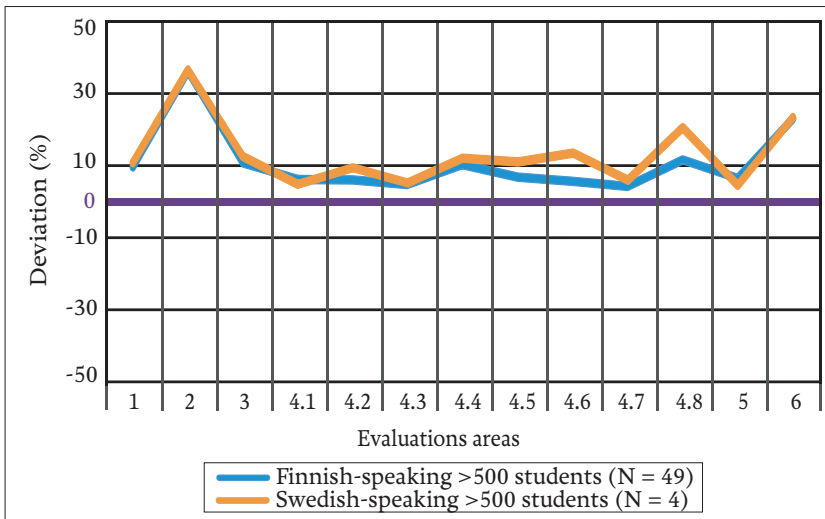
FIGURE 24. Exceeding the acceptable level by evaluation area[21] according to the language of instruction and number of students (over 500)

On average, the Finnish-speaking education providers formed a more homogeneous group than the Swedish-speaking providers (figure 25). There were significant differences between the Swedish-speaking education providers in almost every evaluation area and in particular in the quality management of many basic tasks and their support operations.

---

21 1   Quality culture and quality management
    2   Strategic management and operations management
    3   Personnel and other education actors
    4.1 Quality management of core duties as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational
         institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special
         education institutions
    5   Evaluation, feedback and result data
    6   Improvement

FIGURE 25. Finnish and Swedish-speaking VET providers' average level of quality management and variation

Type of educational institution

There are differences in the shares of providers that exceeded the acceptable level for quality management when compared between types of educational institution (figure 26).

FIGURE 26. Share of VET providers that exceeded the acceptable level for quality management presented by the type of educational institution

On average, all of the educational institution types exceeded the acceptable level best in the evaluation areas of 'strategic management and operations management' and 'improvement' (figure 27). The standard of quality management was lowest in the evaluation areas of 'quality management of basic tasks as a whole' and 'evaluation, feedback and result data'. In the following, the characteristics of quality management are presented by type of educational institution:

- Vocational institutions exceeded the acceptable level on average in all evaluation areas.
- Folk high schools exceeded the acceptable limit on average in all evaluation areas other than 'quality management of basic tasks as a whole', 'apprenticeship training', and 'evaluation, feedback and result data'.
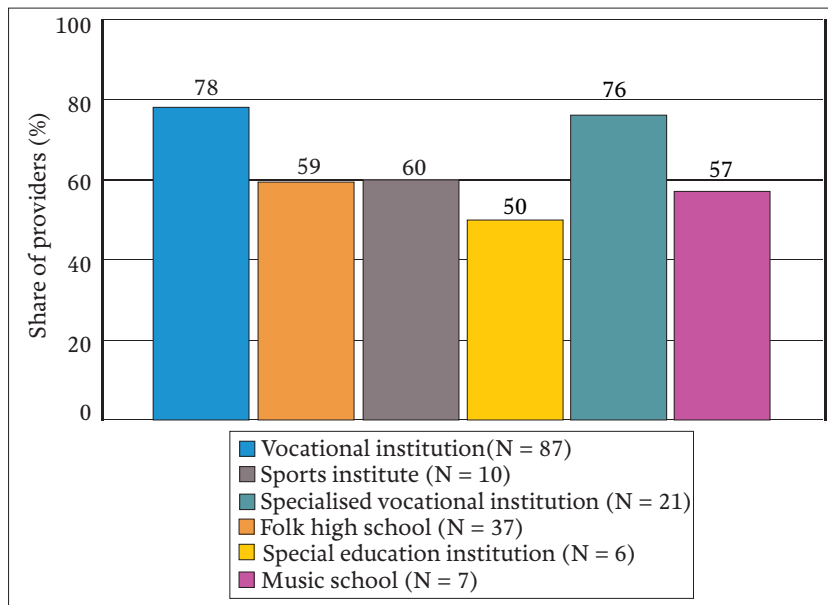- Sports institutes exceeded the acceptable level on average in all evaluation areas other than 'quality management of basic tasks as a whole', 'paid services', and 'evaluation, feedback and result data'.
- Vocational special education institutions exceeded the acceptable level on average in all evaluation areas other than 'quality culture and quality management', 'education organised as vocational upper secondary education in an educational institution', 'organisation of competence-based qualifications and the related preparatory training', 'apprenticeship training', 'other education', 'paid services', 'support services for students', and 'evaluation, feedback and result data'.
- Specialised vocational institutions exceeded the acceptable level in all evaluation areas other than 'support services for students'.
- Music schools exceeded the acceptable level in all evaluation areas other than 'quality culture and quality management', 'personnel and other educational actors', 'quality management of basic tasks as a whole', 'organisation of competence-based qualifications and the related preparatory training', 'support services for students', and 'evaluation, feedback and result data'.
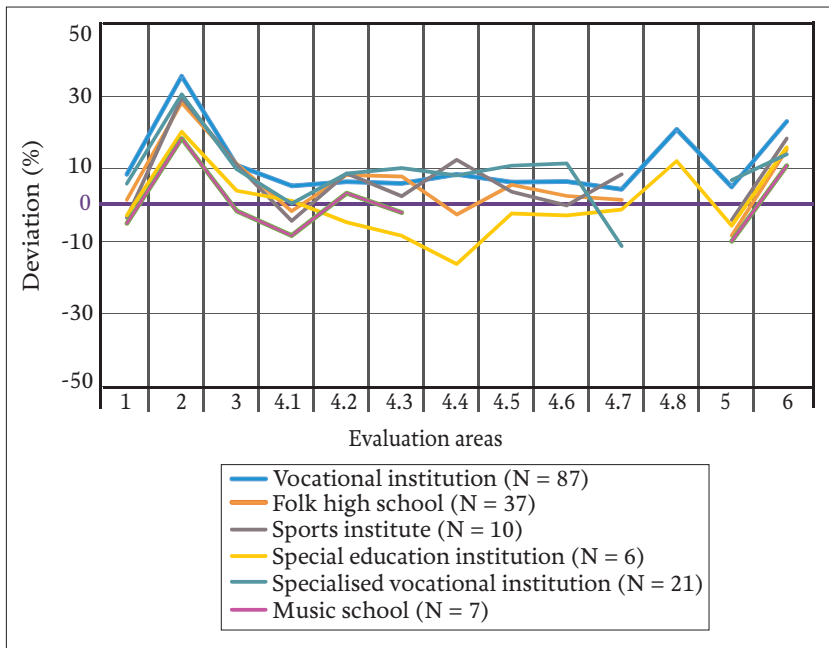
FIGURE 27. Exceeding the acceptable limit presented by the type of educational institution and evaluation area[22]

When examined by evaluation areas, the most notable differences between educational institution types emerged in the area of evaluation, feedback and result data', in which particularly the differences between special education institutions were highlighted (figure 28). The standard of quality management was most consistent in vocational institutions and specialised vocational institutions. Significant differences emerged also in the evaluation area of 'quality culture and quality management', especially among special education institutions and sports institutes.

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22 1   Quality culture and quality management
    2   Strategic management and operations management
    3   Personnel and other education actors
    4.1 Quality management of core duties as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special education institutions
    5   Evaluation, feedback and result data
    6   Improvement

FIGURE 28. The average level of quality management and variation listed by the type of educational institution

Duration of systematic quality management

The duration of systematic quality management was the most important and only individual background factor explaining the status of quality management. This becomes evident when comparing a group of education providers with less than three years of systematic quality management to another group in which systematic quality management has been in place for a longer period of time. Based on the comparison, those providers that had 3–5 years of experience of systematic quality management development were 2.9 times more likely to exceed the acceptable limit, whereas providers that had conducted 6–10 years of systematic quality management were 14.4 times as likely and those with over 10 years of experience in systematic quality management work 12.8 times as likely to exceed the level.

The observed result is also evident in the following examinations. In comparison to the other groups, a significantly larger share of providers with the longest history of quality management exceeded the acceptable level (figure 29).
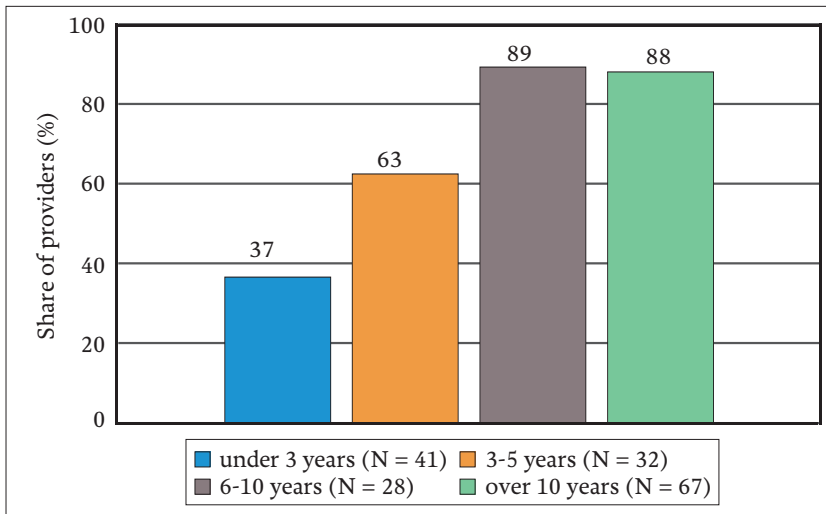
FIGURE 29. The share of providers that exceeded the acceptable level listed by the duration of systematic quality management

There was a distinct connection between the duration of systematic quality management and exceeding the acceptable level (figure 30). On average, education providers with a minimum of six years of systematic quality management exceeded the acceptable level in almost all evaluation areas. In contrast, those education providers that had practised systematic quality management for at most 3–5 years fell on average below the acceptable level in the evaluation areas of 'quality management of basic tasks as a whole', 'paid services', and 'evaluation, feedback and result data'. On average, providers with under three years of systematic quality management met the acceptable level mainly in 'strategic management and operations management', 'organisation of competence-based qualifications and the related preparatory training', and 'improvement'.
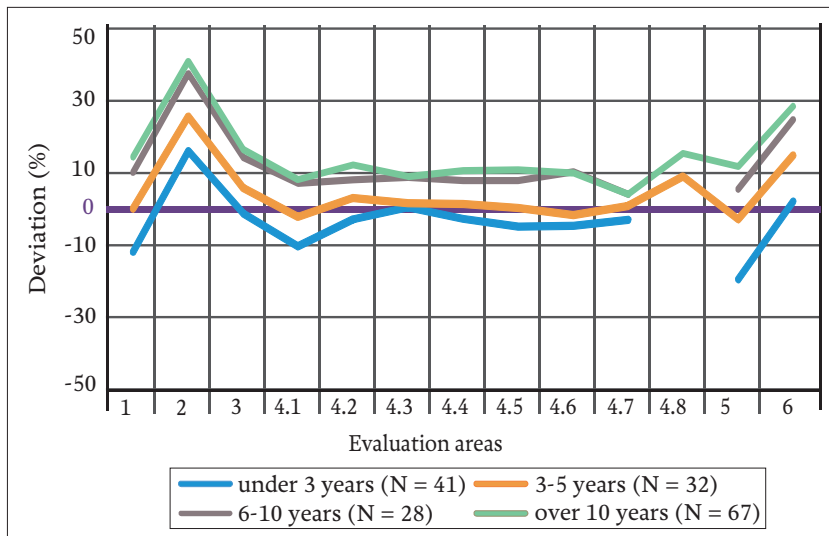
FIGURE 30. The level of quality management by evaluation area[23] according to the duration of systematic quality management

According to the results, as the duration of systematic quality management increased, the differences between providers in different evaluation areas decreased (figure 31). The most homogeneous group consisted of those providers that had practised systematic quality management for 6–10 years, whereas the most heterogeneous group comprised of providers with less than three years of quality management experience. In total, the groups that had conducted quality management for the shortest period of time demonstrated more notable differences between providers, in comparison to the two groups with the longest quality management history.

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23   1   Quality culture and quality management
     2   Strategic management and operations management
     3   Personnel and other education actors
     4.1 Quality management of core duties as a whole
     4.2 Education organised as vocational upper secondary education and training in an educational institution
     4.3 Organisation of competence-based qualifications and the related preparatory training
     4.4 Apprenticeship training
     4.5 Other education (preparatory training, other non-degree education, workshop activities)
     4.6 Paid services (incl. labour policy training, in-service training)
     4.7 Support services for students
     4.8 Development, guidance and support tasks of special education in vocational special education institutions
     5   Evaluation, feedback and result data
     6   Improvement

**FIGURE 31. The average level of quality management and variation by
the duration of systematic quality management**

Framework and procedures for quality management

Those education providers that used the ISO, CAF and/or EFQM framework in their quality
management exceeded the acceptable level more often than those providers that used other
frameworks or procedures (figure 32).
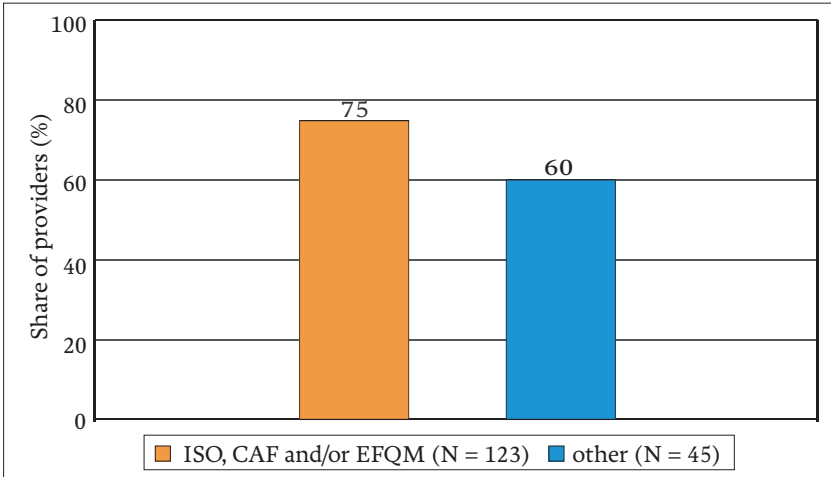
**FIGURE 32. The share of providers that exceeded the acceptable level by
the implemented quality management framework and procedures**

On average, education providers that used the ISO, CAF and/or EFQM frameworks in their quality management exceeded the acceptable limit in all evaluation areas. In contrast, the standard of quality management of those education providers that used some other quality management framework or procedure was poorer. Providers fell clearly below the acceptable level in evaluation, feedback and result data', and somewhat in the area of 'quality management of basic tasks as a whole' (figure 33).
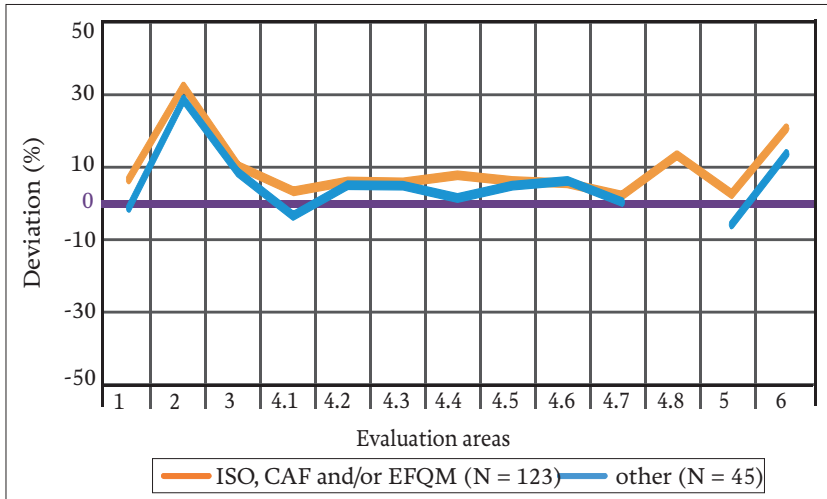
FIGURE 33. The average standard of quality management by evaluation area[24] according to the applied quality management framework or procedure

The group of education providers that used the ISO, CAF and/or EFQM frameworks exhibited smaller differences between one another than providers that used other frameworks or procedures (figure 34). The differences between providers that used some other framework were most significant in the evaluation areas of 'evaluation, feedback and result data' and 'improvement'.

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24   1   Quality culture and quality management
     2   Strategic management and operations management
     3   Personnel and other education actors
     4.1 Quality management of core duties as a whole
     4.2 Education organised as vocational upper secondary education and training in an educational institution
     4.3 Organisation of competence-based qualifications and the related preparatory training
     4.4 Apprenticeship training
     4.5 Other education (preparatory training, other non-degree education, workshop activities)
     4.6 Paid services (incl. labour policy training, in-service training)
     4.7 Support services for students
     4.8 Development, guidance and support tasks of special education in vocational special education institutions
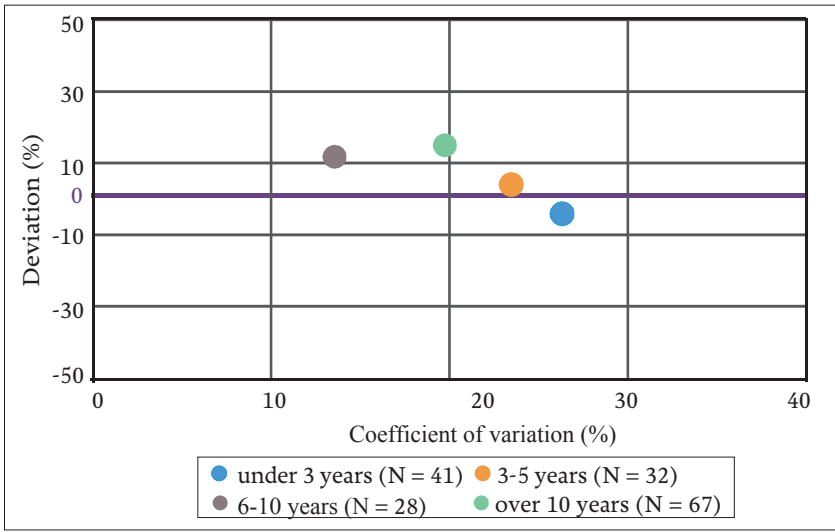   5   Evaluation, feedback and result data
     6   Improvement

FIGURE 34. The average standard of quality management and variation by the implemented quality management framework and procedure

Form of education provision

There was slight variation in the proportions of providers that achieved the acceptable limit for quality management when listed by form of education provision. Approximately 80 % of education providers that offered all forms of education provision or education based on competence-based qualification[25] and apprenticeship training, exceeded the acceptable limit. 70 % of providers that offered institutional vocational upper secondary education[26] and education based on competence-based qualification, exceeded the acceptable level. Approximately 60 % of providers that offered education based on competence-based qualification or vocational upper secondary education in an educational institution exceeded the acceptable level, and the level was met by just over 40 % of providers representing some other form of education provision[27] (figure 35).

---

25 Organisation of competence-based qualifications and the related preparatory training (vocational upper secondary qualification, further vocational qualification, specialist vocational qualification).
26 Education organised as vocational upper secondary education and training in an educational institution
27 Other education (preparatory training, other non-degree education, workshop activities).
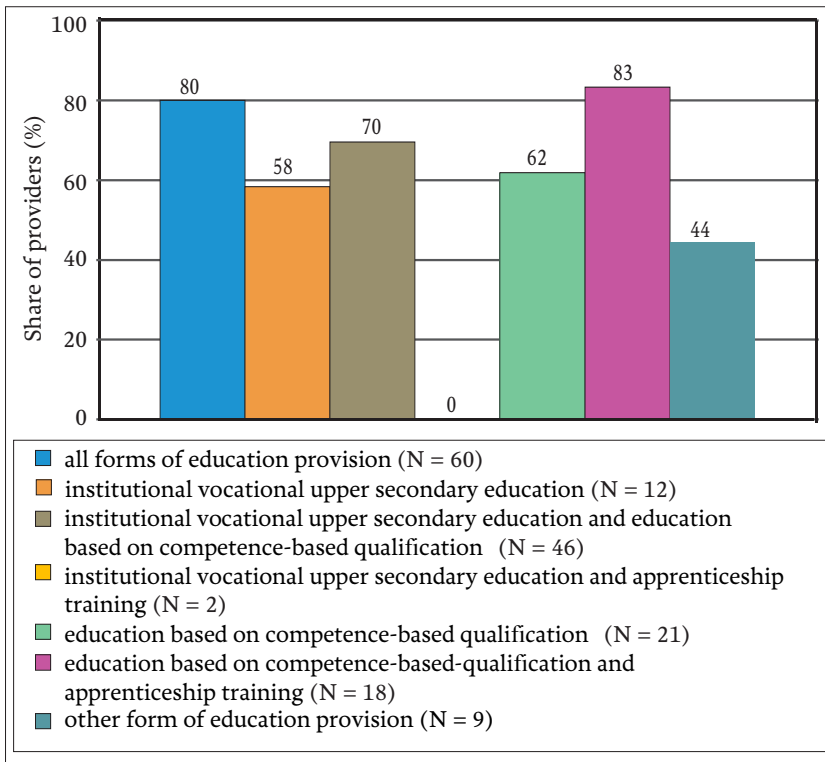
FIGURE 35. The share of providers that exceeded the acceptable level listed by the form of education provision

In this analysis, the education providers offering all forms of education provision formed the only group that on average exceeded the acceptable level in every evaluation area (figure 36). Education providers offering other forms of education provision most often had difficulties in meeting the acceptable level for the individual evaluation areas of 'evaluation, feedback and result data' and 'support services for students'. Education providers that offered vocational upper secondary education in an educational institution[28] and apprenticeship training (n = 2) fell below the acceptable level in almost all evaluation areas. Providers of vocational upper secondary education in an educational institution and education based on competence-based qualification[29] on average fell below the acceptable level in the evaluation areas of 'quality management of basic tasks as a whole', 'evaluation, feedback and result data', and 'support services for students'.

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28   Education organised as vocational upper secondary education and training in an educational institution.
29   Organisation of competence-based qualifications and the related preparatory training (vocational upper secondary qualification, further vocational qualification, specialist vocational qualification).
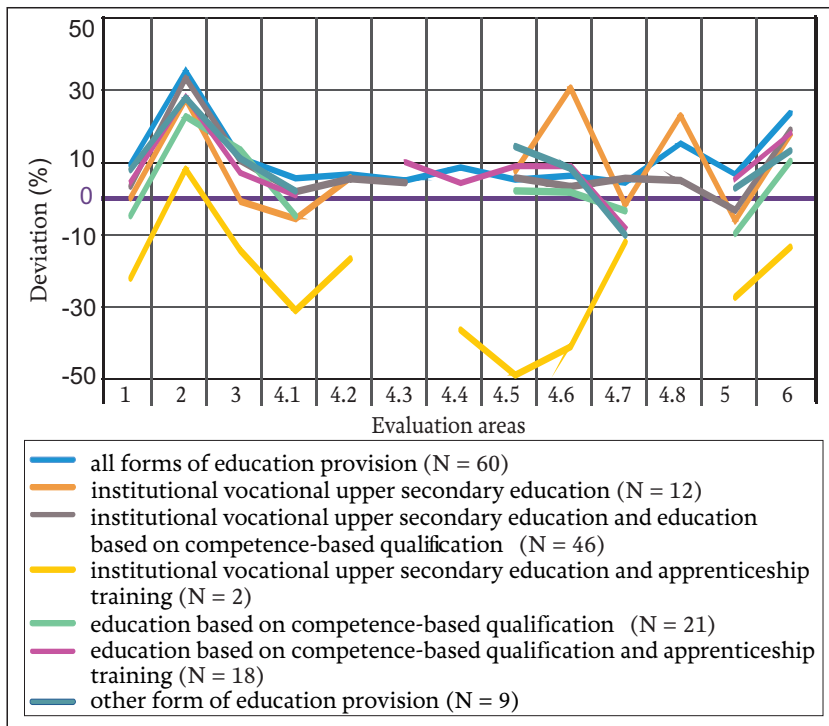
FIGURE 36. The average standard of quality management listed by the form of education provision and evaluation area[30]

There were distinct differences between **different types of education providers** (figure 37). With respect to the average variation in the quality management level, the most homogeneous group consisted of the providers offering education based on competence-based qualification and apprenticeship training, whereas providers of all forms of education provision and those providing institutional vocational upper secondary education and education based on competence-based qualification formed slightly more heterogeneous groups. The most notable differences between providers were observed in the group that provided vocational upper secondary education in an educational institution and the group that offered education based on competence-based qualification. When examined by evaluation area, the most significant differences between forms of education provision were observed in the evaluation areas of 'evaluation, feedback and result data' and 'quality culture and quality management'.

30 1   Quality culture and quality management
     2   Strategic management and operations management
     3   Personnel and other education actors
     4.1 Quality management of core duties as a whole
     4.2 Education organised as vocational upper secondary education and training in an educational institution
     4.3 Organisation of competence-based qualifications and the related preparatory training
     4.4 Apprenticeship training
     4.5 Other education (preparatory training, other non-degree education, workshop activities)
     4.6 Paid services (incl. labour policy training, in-service training)
     4.7 Support services for students
     4.8 Development, guidance and support tasks of special education in vocational special education institutions
     5   Evaluation, feedback and result data
     6   Improvement

FIGURE 37. The average standard of quality management and variation
listed by the form of education provision

Connections between evaluation areas

Distinct connections were observed between the evaluation areas during the analysis (appendix 4). This indicates that even though the different evaluation areas cover different issues with regard to quality management, there is an extensive interdependency between the issues: things are either going well or poorly across the board. Rarely is the level of quality management high in some evaluation areas and low in others.

Especially the evaluation areas of 'quality culture and quality management', 'strategic management and operations management', 'quality management of basic tasks as a whole', 'vocational upper secondary education in an educational institution', 'evaluation, feedback and result data', and 'improvement' formed an entity in which the factors were relatively strongly connected to each other (rs = .69–.76). In contrast, other forms of education provision, such as 'organisation of competence-based qualifications and the related preparatory training' as well as 'apprenticeship training', had a distinctly weaker link to the aforementioned evaluation areas.

5.3 Key characteristics of providers performing above or below the acceptable limit

Table 4 illustrates the key characteristics of the education providers that exceeded or fell below the acceptable level by evaluation area. The summary is based on the strengths and development needs highlighted by the evaluation team on the basis of the self-evaluation and feedback reports, separately for education providers that exceeded or fell below the acceptable level.

TABLE 4. The key characteristics of education providers that exceeded or fell below the acceptable level by evaluation area

	EDUCATION PROVIDERS THAT EXCEEDED THE ACCEPTABLE LEVEL	EDUCATION PROVIDERS THAT FELL BELOW THE ACCEPTABLE LEVEL
	1. Quality culture and quality management	
Strengths	▪ The education provider has **developed the quality management system for a long period of time as an integral part of the management system.** The management is responsible for steering the quality assurance and enhancement. The party that owns the education provider sets out the strategies and strategic objectives, which provide the education provider with a direction and indicate the main objectives with respect to quality management. **The tasks and distribution of responsibilities are clear and participation is encouraged.** ▪ The management is committed to quality culture and quality management and to their continuous improvement. ▪ The education provider develops its quality management **in a purposeful manner. The quality system is developed as a whole**, not just its individual areas. **Quality management is closely integrated into the provider's operating system, and quality management covers all activities. The provider's quality culture emphasises systematic quality management and continuous improvement.** Quality management is part of the provider's normal operations and of the work of all personnel groups.	▪ **The provider's management is committed** to purposeful development of quality management. Quality management is integrated into the provider's management system. ▪ The education provider has identified the development needs. **The quality management system has been implemented, or the systematic construction and development of the system is ongoing;** for example, the determination and description of processes, construction of an operating system based on e.g. the EFQM model or ISO standard, or preparation of an operations/quality manual. Personnel have the opportunity to influence the construction of the system by, for example, giving feedback.

Development needs	• Documentation of the quality management system and the information produced by the system is important so that the procedures and **instructions can be found systematically in one place. The system also helps to structure quality management as a whole**. • **There is variation in the consistency of operating methods between institutions and result areas**. Former structures have an underlying effect, although procedures have become more unified. It is necessary to establish a **variation range for operation,** i.e. to determine the required level of operational consistency. When procedures become more unified, **the commitment of the entire staff** to common strategies and operating principles improves. • It is necessary to **increase and develop the participation of personnel, students and other parties** in the development of quality management.	• Education providers should ensure the **comprehensive development of quality management and uniformity of the quality culture. Quality management should be integrated into the management system, and quality management should be consistent throughout the work community.** • Attention must be paid/taken to practices which increase **the participation of students, personnel, key partners and other stakeholder groups in quality work and communication** can be increased and made more systematic.
2. Strategic management and operations management		
Strengths	• Education provider has **a systematic procedure with regard to the strategy process and personnel's participation in the process.** Objectives are systematically integrated into the work of personnel and operational units. Accomplishment of the objectives is monitored. • Strategic management and operations management are **a part of the quality management system**. The strategy process is described in the quality management system. Objectives for quality management are set and they steer the operation. The strategy is systematically updated. **The management is committed to promoting quality management and developing operations.**	• **Strategic planning is integrated into the quality management system.** Planning is based on e.g. analysis of operating environment, strategy, scorecard, operating and financial plan, process descriptions and result data. • **The education provider's collaboration with stakeholder groups supports the efficiency of operations.**

Development needs	• **The strategy is not implemented in a systematic manner,** and, as a result, the personnel do not understand the significance of quality management in the implementation of the strategy. Consequently, the management and personnel do not have a coherent overall picture of the objectives, operations and their respective parts in the achievement of the objectives. • **The information management system is not fully supportive** of operations management and production of information needed in decision-making. It is necessary to better determine and highlight the entity of information management.	• **Partnership relations should be utilised more** to improve effectiveness. • **The quality management system should be integrated more closely into strategic planning, management and operational steering.**
3. Personnel and other educational actors		
Strengths	• The development of personnel competence **is based on e.g. strategy, competence requirement analyses, and education and development plans.** • Planning and the continuous development of human resources are established practices. Personnel have good possibilities to develop their own skills, **and plans regarding competence are made e.g. in connection with development discussion.** A positive atmosphere towards development and education supports the development of the personnel's competence. **Quality management and evaluation competence is developed** in various ways (e.g. networks).	• **The development of personnel's competence is based on e.g. strategy, operating plan, competence requirement analyses, and education plans.** Quality management competence of the management is developed e.g. with project and network co-operation, evaluations and training. • **Development discussion appraisal interviews are carried out on a regular basis. They support the implementation of the strategy, and achievement of the objectives set in the interviews is monitored regularly.**
Development needs	• Development of the personnel's competence **is not fully supportive of the achievement of the vision and the strategic goals, and development is not systematic.** • There are no established procedures to ensure that the personnel's competence in quality management and other areas is up to date, or the procedures are inadequate. For example, personnel can participate only in self-evaluation, or training is offered only to a limited target group such as the quality group.	• The education provider **does not have a systematic procedure in place to ensure the personnel's quality management and evaluation competence** and up-to-date skills in other areas. There is variation in quality management competence by result areas and personnel groups. • **Training for workplace instructors** is not available, there are no procedures for the training, or training is not systematic.

4.1 Quality management of basic tasks as a whole		
Strengths	▪ **The planning and implementation of basic tasks are based on e.g. the needs of customers and partners,** foresight data, strategy**, pedagogical policies,** curriculum and **process descriptions.** The focal points and responsibilities of development are determined to form a foundation for the quality management of basic tasks. Documents are available to all via intranet. ▪ **Students, personnel and/or partners participate in the planning of basic tasks e.g.** through surveys, feedback and the advisory board.	▪ The planning and implementation of basic tasks are based on e.g. **customer needs**, changes in operating environment, strategy, pedagogical operating principles, process descriptions, common part of the curriculum, and individual study plan documents. The organisation of qualifications is adapted if needed based on changes in customer needs and operating environment.
Development needs	▪ Ensuring the implementation of basic task-related **quality management procedures and operating principles in all units and competence areas**, such as processes, pedagogical policies, curricula, individual study plans/individualisation documents. ▪ **Results from project activities should be utilised more** in the planning and development of basic tasks.	▪ **Ensuring the application of unified basic task-related quality management procedures** (e.g. processes), so that the strategic and pedagogical policy outlines would better steer the planning and the implementation of education. ▪ Developing procedures for acknowledging and recognising competence in order to secure individual study tracks.

4.2 Education organised as vocational upper secondary education and training in an educational institution		
Strengths	- Procedures promoting consistency in the development of operational planning and implementation are in place. The **planning and implementation of education is part of the education provider's quality management system** and it is based on e.g. customer and partner needs, changes in operating environment, strategy, pedagogical policies, process descriptions, common part of the curriculum and individual study plans. - Changes in norms are monitored and taken into account in operations, e.g. preparing for the degree reform and strengthening the competence-based system. - **The needs of the student steer the planning of studies**. A student's prior competence is acknowledged and recognised and there are established procedures for individualisation. Study progress is monitored and assessed. - **Follow-up and feedback data is collected** from vocational upper secondary education in various ways. Structures have been created to support the follow-up process, e.g. teams.	- The planning and implementation of education is a part of the **education provider's quality management system** and it is based on e.g. customer and partner needs, strategy, pedagogical operating principles, process descriptions, curricula, and personal study plans. - **Feedback is collected from students.**
Development needs	- **Pedagogical policies, common part of the curriculum and processes have little steering influence,** and there is variation in operations e.g. between different units. The processes should support the everyday work in a better way, and development of the processes should be part of all employees' work. It is necessary to set objectives and indicators for the processes and connect them to support the goals set out in qualification requirements**.** - **The overall process of personal study plans needs developing,** e.g. resourcing, documentation, procedures for competence recognition, monitoring and evaluation, and enabling individual study tracks in practice. - **It is necessary to develop and organise education related collaboration with working life and partners** as well as collaboration with other institutions concerning study tracks/paths. - **The collection and processing of follow-up and feedback data is not consistent and systematic,** e.g. information regarding different customer groups.	- Create consistent and comprehensive quality management procedures and operating principles (e.g. pedagogical operating principles, processes, objectives, indicators) to steer the planning and the implementation of education, and to integrate those principles into operations. - **Increase the participation** of customers, partners and personnel **in the planning of education**.

4.3 Organisation of competence-based qualifications and the related preparatory		
Strengths	▪ The organisation of competence-based qualifications and the planning and implementation of the related preparatory training **are based on e.g. customers' and partners' needs**, changes in operating environment, qualification requirements, organisation contract and plan, strategy, pedagogical policies, process descriptions and individualisation document. ▪ A student's prior competence and experience is taken into account when planning the studies, and individualisation is realised in the pursuit of preparatory training, completion of the qualification and acquiring necessary vocational competence, and the related guidance. ▪ **Feedback is collected** regarding the organisation of competence-based qualifications and the related preparatory training, e.g. AIPAL. Operations are improved on the basis of the feedback.	▪ The organisation of competence-based qualifiations and the related preparatory training **are based on e.g. the customers' needs**, norms and regulations, strategy, **process descriptions**, qualification requirements and the individualisation document. ▪ **Feedback is collected** from students and working life on the organisation of competence-based qualifications, and activities are improved on the basis of the feedback.
Development needs	▪ **The quality management procedures** related to the organisation of competence-based qualifications and the related preparatory training **do not fully ensure** the realisation of customer-orientation in the planning and implementation of education. It is necessary to introduce the quality management procedures (e.g. processes, instructions) to those completing a qualification or participating in guidance and evaluation. It is also necessary to organise evaluator training in a more systematic manner**.** ▪ **Individualisation practices vary between different units and programmes, and it is not always possible to take a qualification without related preparatory training.** It is also necessary to clarify to the students how individualisation affects the duration of the education, and to create an opportunity to complete the degree according to an individual timetable.	▪ **Develop of quality management** procedures, e.g. processes, related to the planning and implementation of organisation of competence-based qualifications and the related preparatory training and the preparation of individualisation documents. ▪ Clarify of the strategic **and** pedagogical policy outlines and processes related to the organisation of competence-based qualifications, **and ensuring the personnel's commitment to operations in accordance with the processes, e.g. individualisation.**

4.4 Apprenticeship training		
Strengths	▪ **Customer needs, strategy, process descriptions,** conditions for education at the workplace, procurement contracts, individualisation and collaboration with different actors steer the planning and implementation of apprenticeship training. ▪ The quality of apprenticeship training and **compatibility between education and working life are secured** with e.g. the help of monitoring, feedback, workplace visits and procurement contracts. **Follow-up procedures and feedback lead to concrete development measures/actions,** such as the development of teaching methods. Practices ensure that operations are in compliance.	▪ **Customer needs, strategy, process descriptions,** the quality manual, conditions for education at workplace, individualisation and collaboration with different actors **steer the operations**. ▪ Quality management procedures (e.g. processes) are developed in collaboration with partners.
Development needs	▪ **There is variation in the quality management procedures** in apprenticeship training (e.g. participation in the planning of education, preparation of individual study plans, co-operation with workplaces and ensuring implementation) for example between subcontractors providing theoretical education and between different fields of competence. The responsibilities of different actors need clarification. ▪ Procedures for comprehensive evaluation and the development of operations are absent, including the development and introduction of innovative solutions on the basis of results and feedback.	▪ **Establish and unify quality management procedures** related to the planning of apprenticeship training (e.g. processes, responsibilities of different actors, acknowledgement and recognition of competence). ▪ Create closer co-operation between the apprenticeship office and working life in order to improve the workplace orientation and anticipate changes in the working life.
4.5 Other education (preparatory training, other non-degree education, workshop activities)		
Strengths	▪ The organisation of other education is **steered by e.g. customers' needs**, foresight data, follow-up and feedback data, strategy, pedagogical policies, processes, national qualification requirements (Valma), personal study plan and collaboration with partners. ▪ **Customers, students, partners and personnel** participate in the planning.	▪ The organisation of other education is **steered by e.g. customers' needs**, strategy, process descriptions, personal study plan and collaboration with partners. ▪ **Personnel participate in the planning of education programmes.**

Development needs	▪ **Documentation of planning procedures and increasing the participation of students, their guardians and the working life** in the planning of education. ▪ **Systematic utilisation of follow-up and feedback data** related to other education in the development of procedures.	▪ **The realisation of other education is only partially based on strategic policies and pedagogical operating principles.** ▪ **There is variation in the quality management procedures** related to planning and evaluation **between different forms of education provision, or there are no established procedures,** e.g. the planning and realisation of a student's studies.
4.6 Paid services (incl. labour policy training, in-service training)		
Strengths	▪ **Customer needs,** changes in the operating environment, norms, strategy, pedagogical policies, process descriptions etc. **steer** the planning and implementation of paid services. ▪ Customers, partners, personnel and the TE office participate in the planning process.	▪ The planning and implementation of paid services are **steered by customer needs,** changes in the operating environment, norms, strategy, pedagogical policies and curricula. ▪ Providers co-operate with other institutions to build study paths for students.
Development needs	▪ **To integrate paid services more strongly into the education provider's strategy**, and strengthen and clarify the role of paid services in relation to the basic task of the education provider. ▪ **Documentate and harmonise quality management procedures** related to paid services (e.g. processes, the administration of customer relations, productisation, the planning of students' studies) and the **commitment of different actors** to the common procedures.	▪ **Consistent principles and procedures steering the planning and implementation** of paid services are completely absent (e.g. strategic policies, processes, customer feedback system), or they vary between units and competence areas.

4.7 Support services for students		
Strengths	- Support services are **part of the education provider's operating system and they are developed on the basis of follow-up and feedback data. The arrangement of support services** is based on e.g. student needs, strategy, process descriptions, indicators, quality management policies and plans, common part of the curriculum, plan for student health care, student counselling, student welfare and/or special education, and personal study plans. **The availability, accessibility and quality of support services is secured** with the help of e.g. team activities, surveys, hearings and adjustments to the action plans. - The education provider has established procedures for preventing the interruption of studies and for early intervention, e.g. transition phase co-operation, monitoring study progress, support for learning, early intervention, different courses and workshop activities, and close co-operation between internal experts.	**Support services are part of the education provider's operating system. The arrangement of support services is based on e.g. customer needs,** process descriptions, common part of the curriculum, plan for student health care, student counselling, student welfare and/or special needs education, personal study plans/individual plans for the organisation of studies. **The availability, accessibility and quality of support services is secured** with the help of e.g. team activities, surveys, hearings, and adjustments to the completion time and action plans.
Development needs	- The education provider's **quality management procedures do not cover all support services, the quality of service processes varies** between e.g. different units, and operations are not **always in compliance with the new Pupil and Student Welfare Act.** Ensuring the availability of services also requires work. - Education provider **does not have established practices for monitoring, evaluating and developing the support services.**	**Quality management procedures do not cover all support services, or the service processes are not consistent in all offices. The requirements of the new Pupil and Student Welfare Act should also be taken into account** in the development of quality management. **Procedures for monitoring and evaluating the availability, accessibility and quality of support services are missing.** It is also necessary to create indicators for monitoring and evaluating the quality of services.

4.8 Development, guidance and service tasks of vocational special needs education		
Styrkor	▪ The planning and implementation of the development, guidance and service tasks of vocational special education are **steered by customer needs, strategy**, foresight data, follow-up and feedback data and process descriptions. The operations are part of the institution's quality management, and institutions collaborate with other special education institutions with regard to the planning, implementation and development of operations. ▪ Feedback data from different groups and other follow-up data is collected systematically regarding the development, guidance and service tasks of vocational special education (feedback interviews, surveys on satisfaction, self-evaluations). The services and their implementation are improved and developed on the basis of the feedback.	▪ The development, guidance and service task of vocational special education **is based on norms, regulations and strategy.** ▪ The realisation of objectives **is monitored with the help of feedback and self-evaluations.**
Development needs	▪ **Further clarification of the procedures** related to quality management in the planning, implementation, evaluation and improvement of expert services (e.g. responsibilities of different actors, division of duties, tasks, processes, and feedback system). ▪ **The utilisation of the personnel's competence** can be increased in the planning and implementation of services**.**	▪ The self-evaluation and feedback reports examined did not reveal any development needs at this point.
5. Evaluation, feedback and result data		
Strengths	▪ Evaluation data is produced in various ways, e.g. through indicators, management surveys, evaluations of the quality management systems, self-evaluations, peer evaluations, internal and external audits, national evaluations, quality award evaluations, and **personnel and student feedback**. ▪ Procedures are described for the collection and analysis of evaluation, feedback and result data. **Follow-up data exists from several years.** The education provider has an evaluation plan in place.	▪ Evaluation data is produced in various ways, e.g. through indicators, feedback, management surveys, self-evaluations, internal and external audits, national evaluations, peer evaluations and **personnel and student feedback.**

Development needs	▪ **The coverage, analysis and utilisation of feedback data concerning different customer groups and partners** is inadequate or limited. ▪ **A comprehensive monitoring and evaluation system is completely absent, there is no evidenc**e of e.g. the collection and analysis of result data or **the utilisation of data produced by self-evaluations**.	▪ **The collection of follow-up and feedback data is not systematic for all customer groups,** operational units and competence areas**. The indicators** needed in the management and evaluation of operations **are completely absent, or the set of indicators is not comprehensive.** ▪ **There are no established practices for the implementation of self-evaluations or comprehensive evaluation of the quality management system.** ▪ The evaluation plan is missing and communicating of results is not systematic.
	6. Improvement	
Strengths	▪ The education provider has an established procedure based on which the provider **utilises evaluation, feedback and result data, project activities, network collaboration, competition activities, external funding and learning from others** in the development of operations. ▪ **Improvement** of the education provider's quality management system **is based on the information produced by the quality management system. The improvement process is described and improvement measures are documented in the quality management development plan**. The management is committed to the improvement and development of operations, as well as to project activities and the promotion of innovativeness.	▪ The education provider **utilises evaluation, feedback and result data, project activities, network collaboration and external funding** in the development of operations and in decision-making. **The necessary measures are taken even on the basis of individual feedback.** ▪ The education provider shows evidence of purposeful development and **project network activities, learning from others, peer evaluation** and the adoption of good practices.

Development needs	• The education provider **should ensure that there is an overall idea is created of the development needs**, their selection and prioritisation (overall picture) based on **information acquired from different sources**.	• The education provider must **develop a procedure which will ensure that an overall picture is created of the development needs based on information acquired from different sources.** In addition, a description of the development activities as a whole would also promote the planning and implementation of development activities.
	• Strengthen the possibilities of a **learning organisation**, which requires that the improvement procedures and targets are prioritised and entered into the action plan, and that these processes are allocated resources and that they are monitored. For example cross evaluations between different competence areas, peer evaluations, internal audits, benchmarking etc. The procedures are applicable also to learning from other education providers and other organisations.	• **It is necessary to enhance t**he processes of continuous improvement by increasing the utilisation of follow-up, evaluation and result data in decision-making and in the development activities, including project activities. In addition it is necessary to ensure the methodical and systematic use of the data at different levels of the organisation.
	• Development based on **the evaluation, feedback and follow-up system and plan**.	
	• Procedures for **developing the quality management system** are missing.	• Systematic procedures related to the **improvement of the quality management system** are missing.

Based on the qualitative analysis, we can conclude that education providers exceeding the acceptable level have a long tradition of quality development work, they have integrated quality management into their management system, and they already show evidence of the established procedures. Providers that exceeded the acceptable level also involved their personnel, customers and partners in the planning and implementation of operations more than providers performing below the acceptable level. In contrast, for those providers falling short of the acceptable limit, the development of systematic quality management and a quality management system is still in progress or they have only started the development work, for example created procedures.

Common challenges for both groups include such issues as ensuring the uniformity of quality culture as well as comprehensive quality management. This includes e.g. the development of quality and evaluation competence in different personnel groups, increasing the participation of different parties, and commitment to the common operating principles and procedures, such as strategy, pedagogical policies, curricula and process descriptions, and ensuring that these principles and procedures are implemented in different units and activities (e.g. support services). This is evident especially in the quality management of core duties, in which there is great variation in terms of the operational management and proceducers of the different core duties.

Both the providers exceeding and falling below the acceptable level have the common challenge of developing a comprehensive evaluation system and, utilising evaluation, feedback and follow-up data along with other necessary information such as research data in the improvement of their operations.

PART III
SYNTHESIS

Reliability of the evaluation

The reliability of this evaluation was increased during the evaluation process in many ways. Issues that emerged as central with regard to the reliability of the evaluation included the comprehensive nature of the contents of the evaluation criteria on one hand, and on the other hand the ability of the criteria to measure the status of the evaluation subject – which in this context is the level of the education providers' quality management (from absent to advanced). Consequently, reliability was enhanced in the following ways:

The duration and support of quality management development

- The participation of all VET providers in the evaluation was considered a key component for the evaluation's reliability. 168 providers (92 %) took part in the evaluation, which in practice is a very good representation of the main group of VET providers.

- The Ministry of Education and Culture specified the development of quality management in vocational education as a national objective many years ago. Therefore, the long period of time used by education providers to develop quality management has also contributed to the reliability of this evaluation. In addition, education providers were aware well in advance of the time at which this evaluation would be conducted.

- Education providers have had the opportunity to receive support for the development of their own quality management systems. This development work has also been supported for a number of years by allocating appropriations to network-like development projects between providers, which support learning from good practices.

- The reliability of the evaluation was promoted by the comprehensive but simultaneously context-based nature of the evaluation criteria. Consequently, the set of criteria provided an opportunity to form both an overall picture of quality management and a specified idea of the key areas in quality management. This also secured access to information regarding the effectiveness of quality management in all of the basic tasks of the education providers.

- The set of evaluation criteria was tested in the spring of 2014. The criteria, self-evaluation instructions and process, as well as data collection procedures were developed on the basis of the gained experiences.

- The Finnish National Board of Education and the Ministry of Education and Culture prepared instructions and organised orientation events to support education providers in the initiation of the evaluation process and in the organisation of the evaluation.

- Education providers organised the self-evaluations in a manner that best suited them during a relatively long period of time (11/2014–3/2015). As a result, an extensive range of the education providers' management, personnel, students, partners and other stakeholder groups could be involved in the evaluation.

The selection and orientation of evaluators

The experts, who participated in the evaluation visits, were predominantly selected from among the education providers. Knowledge of quality management and vocational education, as well as previous evaluation experience were taken into account in the selection of the evaluators. Expertise in the different forms of education provision was ensured when the team was called together. When appointing duties among evaluators it was also ensured that the evaluation team members did not have any ties to the education providers subject to the evaluation that could endanger the reliability of the evaluation. Some evaluators had also participated in the external evaluation of quality management systems -pilot project conducted the previous year. Initially, the evaluation visits were supposed to be carried out under the leadership of three head evaluators, but for practical reasons the responsibilities were divided between four head evaluators. In addition to these four evaluators, another evaluator was ready to act as head evaluator if necessary. The competence and common orientation of the evaluators were improved with evaluator training organised prior to the visits. In addition, the head evaluators received leadership training so that they could lead their evaluation team and handle the overall management of the evaluation visit process.

Evaluation visits

The evaluation visits were primarily carried out to ensure the reliability the of self-evaluations. The representativeness of the evaluation visit locations was ensured with random sampling carried out in two phases (stratification and systematic sampling). As a result, the subject group (n = 35) comprised of education providers of different sizes and from different parts of Finland. The education providers also had different educational tasks. The targets of the visits are listed in appendix 3.

The evaluation visits were carried out according to specific instruction that detailed the programme, the production of additional material and reporting. At the end of the evaluation visit, the evaluation team gave the education provider feedback and prepared a feedback report, which was delivered to the provider later on. This procedure can be seen as improving credibility of the evaluation and trust in it. The education providers were given the opportunity to comment on the feedback reports, if the interpretations stated therein were in the provider's opinion based on insufficient data. Only three providers asked for small adjustments.

Exceeding of the acceptable level is examined in Figure 38, both for the locations of evaluation visits (n = 35) and the general group of education providers (n = 168), according to the different evaluation areas. The figure indicates that there are no significant differences between the groups.
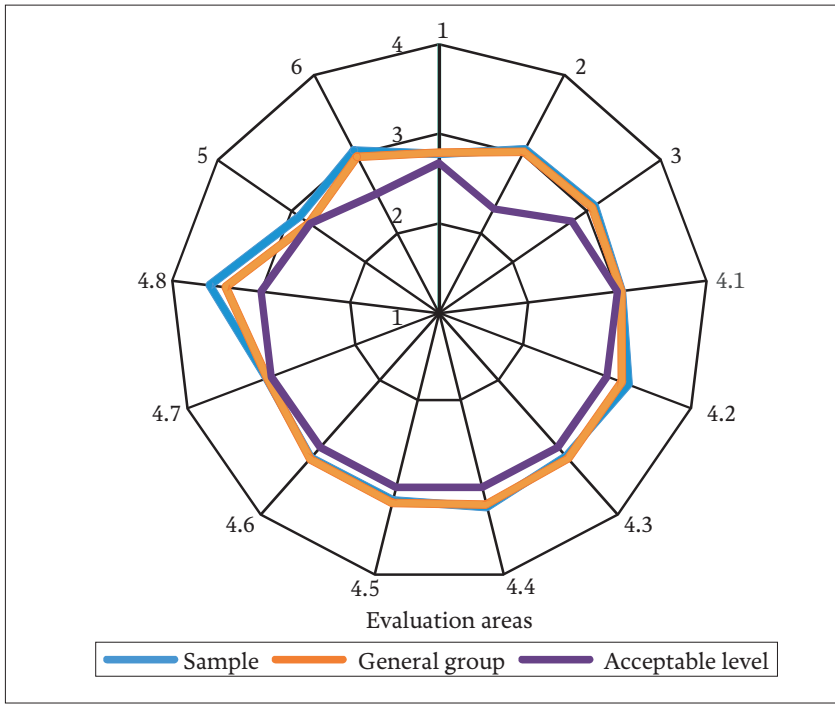
FIGURE 38. The exceeding of the acceptable level for the locations of evaluation visits and the general group of education providers according to evaluation area[31]

Both groups exceeded the acceptable level especially in the areas of strategic management and operations management, improvement, and development, guidance and support task of special education (vocational special education institutions). The standard of quality management was lowest in the areas concerning quality management of core duties as a whole, support services for students, and evaluation, feedback and result data, although on average the acceptable level was achieved in these areas as well.

The mean values in the evaluation areas were compared between the targets of evaluation visits and the basic group of education providers through a standard mean test (table 6). No statistically significant differences were detected between the groups with regard to any evaluation area. Consequently, it can be concluded that the sampling (n = 35) selected as the target group for evaluation is representative of all VET providers, who participated in the evaluation (n = 168).

31 1 Quality culture and quality management
    2 Strategic management and operations management
    3 Personnel and other education actors
    4.1 Quality management of core duties as a whole
    4.2 Education organised as vocational upper secondary education and training in an educational institution
    4.3 Organisation of competence-based qualifications and the related preparatory training
    4.4 Apprenticeship training
    4.5 Other education (preparatory training, other non-degree education, workshop activities)
    4.6 Paid services (incl. labour policy training, in-service training)
    4.7 Support services for students
    4.8 Development, guidance and support tasks of special education in vocational special education institutions
    5 Evaluation, feedback and result data
    6 Improvement

TABLE 6. The level of quality management according to the evaluation areas[32]

EVALUATION AREAS	All providers		Providers (Evaluation visits)			t-test		
	N	mv	n	mv	sd	t	df	p
1	168	4,6	35	4,0	19,50	-.176	34	.86
2	168	31,4	35	32,6	20,85	.361	34	.72
3	168	9,8	35	11,0	15,53	.473	34	.64
4.1	168	1,5	35	1,6	13,90	.068	34	.95
4.2	120	5,9	29	8,5	11,21	1.27	28	.21
4.3	145	5,6	32	4,5	11,68	-.52	31	.61
4.4	80	6,7	19	7,7	11,88	.36	18	.72
4.5	103	5,9	22	5,0	12,28	-.34	21	.74
4.6	112	5,7	24	5,2	11,22	-.22	23	.86
4.7	159	1,7	35	1,9	14,51	.07	34	.94
4.8	6	13,2	2	19,2	5,44	1.56	1	.36
5	168	0,3	35	5,2	20,95	1.38	34	.18
6	168	18,8	35	21,9	20,17	.91	34	.37

Internal consistency of evaluation items

The internal consistency of evaluation items was examined with Cronbach's alpha coefficient (table 7), which was used to identify the level of consistency with which the evaluation items in a specific evaluation area as a whole measure the same phenomenon. In two evaluation areas, i.e. 'personnel and other actors' and 'evaluation, feedback and result data', the factors were slightly lower than in the other areas, but the overall level of the indicators' internal consistency can be viewed as fairly high and similar. However, the high level of the indicators' internal consistency does not demonstrate how well they worked in studying the measured item. The accuracy of the indicators in relation to the different evaluation areas was examined more closely in the preliminary testing phase of the form and with the help of evaluation visits.

32, 33   1   Quality culture and quality management
          2   Strategic management and operations management
          3   Personnel and other education actors
          4.1   Quality management of core duties as a whole
          4.2   Education organised as vocational upper secondary education and training in an educational institution
          4.3   Organisation of competence-based qualifications and the related preparatory training
          4.4   Apprenticeship training
          4.5   Other education (preparatory training, other non-degree education, workshop activities)
          4.6   Paid services (incl. labour policy training, in-service training)
          4.7   Support services for students
          4.8   Development, guidance and support tasks of special education in vocational special education institutions
          5   Evaluation, feedback and result data
          6   Improvement

TABLE 7. Internal consistency of the evaluation items[33]

EVALUATION AREAS	Number of evaluation items	Cronbach's alpha
1	6	.87
2	13	.91
3	5	.77
4.1	7	.83
4.2	15	.89
4.3	16	.87
4.4	11	.91
4.5	15	.92
4.6	13	.89
4.7	7	.87
4.8	13	.92
5	4	.78
6	5	.85

In the analysis phase, the self-evaluation data provided by the visit locations was compared with the evaluation made by the evaluation team. Based on the analysis it was concluded that the evaluation team's view of the level of quality management was consistent, although not entirely in line with the education providers´own evaluation.

Qualitative analysis

The evaluation based on quantitative indicators was completed with a qualitative analysis. The analysis focused on the feedback reports from the evaluation visit locations (n = 35) and the education providers' self-evaluation reports (n = 49), which were selected as a sample from among the education providers who were not targeted by evaluation visits. Both groups included both education providers who exceeded the acceptable level and those who fell below. This cross analysis was used to produce interpretative and complementary information about which evaluation areas and items are strengths and which are development areas, regardless of the evaluation perspective, subject group or analysed documents.

Similar issues emerged in both groups. However, providers falling short of the acceptable level had more development needs in their procedures and commitment.

Interpretations made by the education providers

The evaluation of quality management systems in VET was based on the education providers' self-evaluations and the included interpretations. Although some inaccuracies emerged, evaluators relied on the information provided by the education providers in their self-evaluation reports.

The evaluation model, criteria and process

The evaluation brought up the following perspectives on evaluation reliability related to the model, criteria and process of evaluation:

- The extensive and comprehensive nature was the biggest strength of the indicators. The relatively long period of time reserved for the self-evaluation and the complexity of the self-evaluation provided the education providers with an opportunity to produce high-quality evaluations.
- The problem of the indicators was their inconsistency with the evaluation areas and items. The indicators focus partially on operations instead of quality management.
- The decision of the working group on quality to set an acceptable level for the evaluation was made during the education providers' self-evaluation process. This may have improved reliability but reduced trust in the evaluation. The education providers were not aware of this when conducting their self-evaluations. Despite this the decision of the working group can be considered fair and justified.
- With regard to the interpretation of the results, it is also essential to acknowledge that the acceptable level set by the working group on quality varied according to the evaluation areas and items. The acceptable level was lower in the evaluation areas of 'quality culture and quality management', 'strategic management and operations management, 'evaluation, feedback and result data', and 'improvement' than in other areas.
- The different procedures used in the evaluation complemented each other and thus produced comprehensive information regarding the status of education providers' quality management systems. It is the view of the evaluation team that this evaluation as a whole succeeded in creating a fairly reliable and credible picture of the status of education providers' quality management systems and their level in relation to the established requirements.
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Evaluative conclusions

7.1 Analysis of the results

Most of the education providers have an effective quality management system, which meets the quality requirements.

According to the evaluation results, many of the education providers have an effective quality management system in place when examined against the criteria used in the evaluation and requirements set for a functional quality management system. A majority of the providers (71 %, n = 114) exceeded the acceptable level on average in all evaluation items. The high level of quality management systems is also illustrated by the fact that, according to their own evaluations, some education providers were fairly close to the acceptable level set out in the evaluation (n = 33).

According to the education providers' self-evaluations, the core strengths were related to the strategic management and operations management, improvement, and the development, steering and support tasks of vocational special education institutions (only providers who have been assigned this specific responsibility).

- The strengths in the evaluation area 'strategic management and operations management' evaluation area were related to a command of the strategy process and the involvement of personnel in that process, as well as the integration of quality management into strategic management and operations management. The significance of the management's commitment to long-term promotion of quality management was emphasised.
- The emerging strengths in the evaluation area of 'improvement' included practices related to e.g. the utilisation of follow-up, evaluation and result data, project activities, network collaboration and learning from others.
- Strengths in the quality management of development, guidance and service tasks in special education include a customer-oriented approach and making use of diverse information in the continuous improvement of operation.

There are also differences in the quality management systems different education providers

Examining of the status of education providers' quality management systems according to the background variables revealed differences between the groups of education providers. The results indicate that the quality management systems of joint municipal authorities with multidisciplinary education and a large number of students were, on average, more effective than those of other providers. When examined by type of educational institution, the most effective quality management systems were in place in vocational institutions as well as in specialised vocational institutions. According to the results, development needs become emphasised when an education provider has a low student rate, although the results also show that small size does not indicate the absence of an effective quality management system. Many units in this group have conducted, and continue to conduct, purposeful quality management development work, and their quality management systems are effective and comprehensive. In addition, the evaluation visits revealed that the standard of quality management systems of some providers in this group was better than indicated in their own evaluations. Furthermore, exceeding the acceptable level seemed to decrease the differences observed between the education providers, who had exceeded the level. Correspondingly, differences between providers falling below the acceptable limit were bigger than the differences between those exceeding the level.

The importance of long-term development and evaluation of the quality management system is significant

The development process and development measures in vocational education quality management have improved the quality management of vocational education providers. The most essential measures have been related to the national quality strategy, nationally set objectives and long-term support for developing quality management. In addition, awareness of an upcoming evaluation has boosted the development of the education providers' quality management systems. It is also obvious that the providers, who voluntarily participated in the testing of the evaluation model and criteria the year before the national evaluation, have consequently gained insight into the interpretation of the criteria and developing their own quality management systems. It is also positive that the education providers participating in the testing shared their experiences in e.g. regional quality networks and in projects implementing the quality strategy.

Therefore, the systematic long-term development of quality management and the visibility of objectives concerning quality management have had a significant influence on the national standard of quality management in vocational education. It is the view of the evaluation team that the requirements regarding quality management and its evaluation did not come as surprise to any education provider, but rather providers had been aware of these for quite some time since the preparation of the quality strategy. On one hand, different forms of support and various milestones have helped the providers define their own objectives, whereas on the other hand they have put pressure on the providers to develop their own systems. The Ministry of Education and Culture's proposal to link quality management to the evaluation process for organisation licences for vocational education can also be seen as having a significant impact.

According to the analysis of background variables, the only factor that statistically explains the differences between education providers is related to the duration of quality management. According to the results, the providers who had developed their quality management for more than six years had statistically better quality management systems than those who had developed their systems for a shorter period of time. Consequently, it is apparent that it takes many years of systematic work to develop a quality management system and get it to a high standard.

This work should still be supported, although the education providers themselves must also be committed to the purposeful development of their own operations.

Quality management systems also need development

According to the education providers' self-evaluations, their key development needs were related to evaluation, feedback and result data, quality culture and quality management, and quality management of core duties as a whole:

- A relatively large share of education providers did not have effective evaluation practices in place regarding their own operations. Different surveys on satisfaction and follow-up data were emphasised in the 'evaluation, feedback and result data' evaluation area, but practices concerning evaluations and audits and the communication of evaluation results were not systematic to any great extent. Development needs in the area of 'evaluation, feedback and result data' were highlighted more than those in the other evaluation areas in units that differed on the basis of background variables.

- The development needs in the area of 'quality culture and quality management' were related to the documentation of the quality management system, the creation of an electronic version of that system and the use of information systems. The development needs in this area also included harmonising the procedures of different operational units, and involving different parties such as management, personnel , students, partners and other stakeholder groups in quality management and its continuous development. In addition, ensuring the quality management and evaluation competence of the different parties emerged as a key development area.

- According to the qualitative analysis, the development needs in the quality management of basic tasks and their supporting activities were related to the following issues in the activities of both the providers that exceeded and fell below the acceptable level:

  - taking the customers' needs into consideration in the preparation of pedagogical policies, curricula and plans related to individualisation,
  - setting objectives for the processes,
  - describing the processes, documenting them and creating harmonised quality management procedures for the different processes,
  - anchoring the common procedures concerning the different processes in the education providers' different operational units and all programmes,
  - harmonising the different quality management procedures and operating principles (strategic and pedagogical policies, the common part of the curriculum, processes) for all core duties and securing their implementation in the different operational units and activities,
  - determining the scope of evaluations, feedback and result data, and analysing the results,
  - utilising evaluation, feedback and result data and other necessary information as the basis for continuous improvement and development procedures, and
  - developing innovative solutions.

7.2 The challenges related to the evaluation approach, methods and evaluation processes

The evaluation of quality management in vocational education was based on the evaluation framework and the set of evaluation criteria prepared by the working group on quality management appointed by the Ministry of Education and Culture. Therefore, the evaluation approach, model, subjects and criteria were to be adopted as they were given in the evaluation. Also the self-evaluation material produced by the education providers was received through the Finnish National Board of Education's information system. On one hand, all of this facilitated the overall management of the process, but, on the other hand, the external evaluation actors were denied all decision-making opportunities regarding the evaluation methods, grounds for the evaluation and obtaining information needed in the evaluation.

The evaluation criteria were prepared in extensive collaboration with stakeholders headed by the Ministry of Education and Culture, which promoted the contribution of different parties as well as their commitment to the evaluation and to further development of their quality management systems. Additionally, testing the implementation and effectiveness of the criteria the previous year enhanced the applicability and effectiveness of the criteria. In addition to the evaluation criteria, the processes related to the evaluation visits were also tested.

Once the analysis of the external evaluation results was initiated, it was acknowledged that the criteria needed to be clarified. The concepts of evaluation target and criteria that formed the basis for the evaluation, and the differences between these concepts, were clarified in the evaluation. This specification had no impact on the evaluation data collected from education providers, but it was done in order to clarify the analysis of the results. Consequently, the principles of criteria-based evaluation were also clarified. In the evaluation, the targets consisted of evaluation areas and items, and the criteria consisted of four levels quality describing variation in quality.

The evaluation criteria were considered of great importance in the evaluation, because they formed a foundation for determining the scope of the quality management systems and for identifying variations in quality management (absent, emerging, developing, advanced). Another criterion considered was an acceptable level specified by the working group on quality management for each evaluation item, which provided information about the extent to which the providers exceeded or fell below the acceptable level that had been set as the objective.

The evaluation criteria emphasise systematic quality management and extending quality management procedures to core operations (cf. evaluation area and evaluation item). The premise was that quality management is implemented in accordance with the framework for systematic quality management (planning, implementation, evaluation and improvement) in all of the evaluated areas. This procedure was selected, because in this way, the evaluation also focused on the education providers' core duties.

The evaluation targets (evaluation areas and items) and criteria are partially defined in great detail, which makes the set of criteria long. The indicator covers all stages of systematic quality management, but is mostly focused on the quality management of core duties and the support functions (evaluation areas 4.1–4.8). There is also variation in the weight given to the quality management of individual core duties, and, as a result, the related procedures are not fully comparable.

In order to evaluate and further develop the effectiveness of the evaluation approach and the related procedures, some further information is needed for a more in-depth analysis. This could entail the collection of feedback from education providers and, for example, initiating a development project on the self-evaluation and external evaluation of quality management systems. The impact of the evaluation is also an essential perspective in the collection of feedback. Key development areas, which that would also improve the reliability of the evaluation, are concerns the clarification of the evaluation, concern and methods, and to the effectiveness of evaluation processes.

7.3 Trustworthiness of the evaluation results

The evaluation material was very extensive and versatile. However, choices had to be made during the analysis of results to ensure that the evaluation report was completed within the tight timetable set by the Ministry of Education and Culture. Regardless of these limitations, it is the view of the evaluation team that the evaluation report provides a good overall picture of the coverage and functionality of vocational education providers' quality management systems. The statistical analyses and the qualitative analysis support the other interpretations made of the reliability of the evaluation. The evaluation visits, in particular, were crucial in demonstrating the reliability of the evaluation. There were no significant differences between the interpretations of specific education providers and those of the evaluation teams that carried out the external evaluations.

7.4 The status of quality management systems of vocational education in the European Quality Assurance Reference Framework

The objectives of quality management and procedures of quality assurance, and thus also of this external evaluation, are based on the national quality strategy for vocational education and training (VET quality strategy 2011–2020), the development plan for education and research (Education and Research in 2011–2016.) A Development Plan and the policy outlines drawn up by the Ministry of Education and Culture on the basis of these strategies. The national policies have ensured that choices made in Finland concerning VET quality management systems are in compliance with the requirements set by the European Union for VET quality management systems. The results also indicate that VET providers have developed education-related quality management in accordance with the set objectives.

Development recommendations

All education providers develop their own quality management system and ensure that the system is comprehensive and well-functioning and that it is continuously developed. Therefore, the education providers should

- set objectives for the development of their quality management systems based on their self-evaluations and other results,

- ensure the continuous development of quality management and the quality culture,

- ensure that their quality management system covers all activities and, as a part of their quality culture, create procedures to secure the consistency of the different processes and the activities of different operational units,

- secure the quality management competence of management, personnel and students, ensure the participation of different parties, such as students, working life, partners and other stakeholders, in quality management and its development, and enforce an operating culture that supports the entire organisation's learning as well as learning from good practices and other organisations,

- develop their evaluation systems and prepare an evaluation plan based on their own objectives, develop evaluation competence and evaluation procedures, ensure that the evaluation plan is realised in practice, and secure the continuous development of evaluations, and

- make sure that they have a comprehensive view of improvement and development needs, as well as procedures in place for continuous improvement and development and for monitoring the their implamentation.

Educational authorities develop ways of supporting quality management in vocational education and training by

- communicating the evaluation results related to the status of quality management systems in vocational education in a comprehensive manner to different parties and to the public,

- enabling the use of the evaluation results of VET quality management system evaluations in the development work by e.g. allocating support to the development of education providers' quality management systems in collaboration networks,

- supporting the development of education providers' competence in quality management and evaluation, as well as the development of evaluation approaches and models, indicators and criteria, and by supporting the comprehensive implementation of self-evaluation by education providers,

- collecting feedback from VET providers and other parties on the evaluation in question and the procedures applied to form a foundation for developing the evaluation procedure, and by starting development work to improve the evaluation model and criteria used in the evaluation of quality management systems,

- deciding on the time of the next national evaluation of VET providers' quality management systems, and

- assessing the potential need to reform the quality strategy for vocational education.

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Appendix 1. Members of the evaluation teams

Evaluators	Organisation
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Ritva Antila, Supervising Teacher	Federation of Education in Jokilaakso, Social and health care unit
Elise Anttalainen-Kulmala, Lecturer	Salo Region Educational Federation of Municipalities
Kati Isoaho, Senior Advisor	Finnish Education Evaluation Centre
Rabbe Ede, Director	Optima Samkommun
Satu Hautanen, Director of Education	Finnish Institute for Enterprise Management
Jatta Herranen, Development Manager	North Karelia Municipal Education and Training Consortium
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Tuula Hoivala, Apprenticeship Manager	Tampere Vocational College Tredu
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Evaluators	Organisation
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Others participants in the evaluation	Organisation
Risto Hietala Evaluation Expert, Method Specialist	Finnish Education Evaluation Centre
Noora Lehtonen	Finnish National Board of Education

Appendix 2. Education providers not participating in the evaluation of vocational education providers' quality management systems

Fria kristliga folkhögskoleföreningen r.f.

Eastern Finland Sports Institute Limited

Company Kalmar industries Oy Ab

Kvarnen samkommun

Nanso Group Oy Nokia Group

Association for Educational Activity

Sport Institute Foundation of Northern- Ostrobothnia Riihimäki prison

Finnish National Opera Foundation / Ballet School Art School

MAA support association

TS Group UPM

Valmet Automotive Oy

Supporting Association of the Free Art School

Appendix 3. Evaluation providers of evaluation visits

1. Ahlman school Foundation
2. AVA Institute support association
3. Axxell Utbildning Ab
4. Eurajoki Christian Folk High School
5. Helmi Business and Travel College
6. City of Helsinki, Education Department, Helsinki Vocational College and Helsinki Vocational Adult Institute
7. Ypäjä Equine College
8. The Finnish Association of People with Physical Disabilities
9. School association Jyväskylän Talouskouluyhdistys ry
10. Kanneljärvi Folk High School support association
11. Kiipula
12. North-East Finland Adult Education Ltd
13. Korpisaari Foundation / South Ostrobothnia Folk High School
14. Salpaus Further Education
15. Kuortane Sport Resort foundation
16. Lahti Deacony Foundation
17. Lahti Conservatory
18. Lieksa Christian Community College
19. The Oulu Region Joint Authority for Education
20. Community college support association Pohjois-Satakunnan kansanopiston kannatusyhdistys ry (Kankaanpää Institute)
21. Construction Industry Education Centre RATEKO
22. Rovaniemi Municipal Federation of Education
23. Ruukki Industrial Institute
24. Satakunta Educational Federation
25. Savo Consortium for Education
26. City of Tampere / Tampere Vocational College, Tredu
27. Youth Institute of Finland support association
28. Federation of Swedish Municipalities in Ostrobothnia for Education and Culture
29. Tampere Adult Education Foundation, Tampere Adult Education Centre
30. TAO, Turku Vocational School Foundation
31. City of Turku
32. Turku Conservatory support association
33. Research, development and training institute Työtehoseura ry
34. Vuokatti Foundation
35. Äänekoski Federation of Municipalities for Vocational Education

Appendix 4. Connections between evaluation areas

	Evaluation area												
	1	2	3	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	5	6
2	.80	1											
3	.66	.70	1										
4.1	.74	.74	.68	1									
4.2	.62	.66	.65	.68	1								
4.3	.44	.48	.51	.47	.55	1							
4.4	.45	.41	.34	.49	.42	.44	1						
4.5	.67	.61	.57	.58	.70	.50	.40	1					
4.6	.50	.56	.54	.53	.51	.67	.43	.64	1				
4.7	.49	.58	.56	.56	.65	.41	.32	.47	.37	1			
4.8	.49	.68	.77	.62	.89	.80	.50	.77	.60	.81	1		
5	.76	.69	.56	.74	.59	.52	.45	.62	.54	.45	.77	1	
6	.76	.74	.61	.75	.63	.46	.38	.57	.47	.57	.61	.72	1

The Finnish Education Evaluation Centre (FINEEC) is an independent, national evaluation agency responsible for the external evaluations of education from early childhood education to higher education in Finland. It implements system and thematic evaluations, learning outcome evaluations and field-specific evaluations. Moreover, FINEEC supports providers of education and training and higher education institutions in matters related to evaluation and quality assurance, as well as advances the evaluation of education.

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