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Improving Quality Assurance in European Vocational Education and Training

Factors Influencing the Use of Quality Assurance Findings

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Chapter 1
Introduction to the Problem of the Under-Utilisation of Quality Assurance Data, and the Research Approach

Adrie J. Visscher

1.1 Introduction

The Technical Working Group "Quality in Vocational Education and Training" of the European Commission has developed a Common Quality Assurance Framework (CQAF) for Vocational Education and Training (VET) aimed at supporting VET providers in the development, evaluation and improvement of Quality Assurance systems and practices throughout Europe (Technical Working Group on Quality in VET, Thessaloniki 2003).

The Quality Assurance model presented in the CQAF includes four phases:

1. *planning* (setting goals);
2. *implementation* (of actions to achieve the goals set);
3. *evaluation and assessment* (evaluation of programme provision by objectives, and assessing the achieved outcomes);
4. *review*, e.g. the discussion of the results of quality assessments among end-users, detecting causes of underperformance, and translating the conclusions into improvement actions.

The resemblance between this Quality Assurance model and the well-known PDCA (plan, do, check, act) cycle as developed by Deming (1982) which was meant to support continuous quality improvement within companies is clear. In both approaches goals are set and an attempt is made to accomplish them as well as possible, the results are studied, and based on that an attempt is made to achieve the goals even better.

The Technical Working Group stresses that the first three phases are only of value if phase four is thereafter carried out successfully. In other words, there is little value

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in setting targets, and measuring to what extent these targets have been met after a certain period of time, if the results of these assessments are not used (much) for performance improvement.

According to the Technical Working Group the review phase, despite its crucial importance, is often the weakest phase. Our observations are in line with this statement. Much energy and financial resources are being invested in the development and introduction of Quality Assurance Systems into VET institutions whereas the impact of the Quality Assurance data is too limited. It proves to be far from easy for VET provider staff to transform collected Quality Assurance data into improvement-oriented activities. Too often evaluations become empty, legitimising rites instead of a basis for organisational learning and viable transformation and improvement of the system. Thus, in many cases the goal of improving the quality of VET is not realised; performance feedback is under-utilised, goals are not fine-tuned and no strategies are designed to better accomplish the goals set. This conclusion is in line with several other studies (Weiss 1998; Visscher and Coe 2002) which show that in many organisations valuable evaluative information is not used, or only to a small degree.

Weiss (1998), based on her long experience with research into the (under-) utilisation of evaluation outcomes concludes that we are inclined to think that new valuable information is a sufficient precondition for triggering improvement-oriented behavior. For example, in the case of Quality Assurance our assumption is usually that practitioners as a result of Quality Assurance activities obtain information on their own and on institutional functioning which they did not have before, and which is valuable for them. Therefore, it is expected that this information will be a basis for improving performance. This assumption proves to be naïve.

According to Weiss new, relevant information is a valuable but insufficient precondition for triggering improvement-oriented behaviour. A strong *motivation* to improve performance is also important, likewise s*ocial support* (e.g. from the boss and from other colleagues), and additional *resources*, as the utilisation of findings is something that needs to be done in addition to regular tasks and therefore asks for extra time and other resources. Weiss also points to a number of ways in which the utilisation of data can be obstructed:

- evaluation results may not be *disseminated* among the target group;
- users may *not understand, or believe* these;
- they may *have no idea of how the results can be changed*;
- and/or *lack the skills, competences* for utilising the evaluation findings;
- the required changes may be too *controversial to accomplish them*.

This type of experience and insight is valuable when analysing how and why the utilisation of Quality Assurance data in European VET breaks down as it can contribute to the identification of the critical success factors for improving the utilisation of Quality Assurance data.

Our goal was to identify how VET providers can meet the requirements of the Common Quality Assurance Framework by promoting the successful execution of the review stage. The focus area was Quality Assurance at the level of the European

providers of the initial VET (IVET) for the health care sector. The rapid and numerable changes in this sector in combination with the increased accountability and performance requirements make Quality Assurance in this sector difficult but also very important. About 30 European (I)Vet providers were analysed in terms of how they work on Quality Assurance, to what extent they not only collect Quality Assurance data but also process these, and transform the findings into actions and measures to improve performance. An attempt was made to explain the variance in Quality Assurance success by means of a theoretical framework which includes potential explanatory factors (e.g. features of the Quality Assurance system, features of the process of implementing the Quality Assurance system into the (I)VET providers, and characteristics of the school organisation).

There is relatively little systematic knowledge on the critical success factors for the review stage in VET. The challenge of this EU-funded Leonardo da Vinci project (for more information on the project: see www.revimp.org) was therefore to acquire more knowledge on this topic, and to translate the findings into guidelines for the review stage whilst ensuring that the guidelines match well with the practice of European VET, and can be used for training VET providers regarding Quality Assurance.

1.2 Strategy

The approach for gaining insight into the conditions under which Quality Assurance leads to successful review as a basis for developing guidelines for successful review, included the following activities.

First, possible critical success factors for the review phase were obtained from a review of the literature on innovations which are similar to the introduction of Quality Assurance systems into VET. This led to the construction of a theoretical framework (which is presented in Chapter 2) which includes the potential critical success factors and their relationships.

The theoretical framework was used for developing draft interview questionnaires which were pilot tested in all six project countries. Based on the findings of the pilot test the instruments for data collection were adapted and the theoretical framework was also modified to some extent (e.g. some variables proved to be of less relevance than expected and a few other relevant ones were missing). For more details see Chapter 2.

Next, the Quality Assurance practices of 30 IVET providers in six countries (five case studies per country: England, Estonia, Germany, Italy, Denmark, and the Netherlands) were studied on the basis of the theoretical framework. This was done by means of interviews with school staff in the IVET providers. The aim was to analyse under which conditions the review stage is organised successfully: when do IVET providers transform Quality Assurance data into actions to improve IVET?

On the basis of the data collected in the 6 European countries, a comparative transnational analysis was carried out, on the basis of which a draft set of guidelines was drawn up for executing the review stage, for IVET providers for the health care sector.

The draft guidelines were tested in the six countries under the same 30 IVET providers which had been involved in the initial data collection (the test of the theoretical framework). The test focused on the relevance and feasibility of the guidelines for IVET providers. Based on the test results, the final, English version of the guidelines has been developed which thereafter was also translated into guidelines in the languages of all participating countries (see www.revimp.org for the various versions of the guidelines). The guidelines have been disseminated widely among the various target groups.

It is our hope that the European providers of IVET for the health sector will benefit from the guidelines in such a way that the guidelines will support them in strengthening the positive impact of their Quality Assurance activities on institutional functioning.

The Technical Working Group "Quality in VET" based on our findings, may elaborate the Common Quality Assurance Framework (CQAF), which so far, is rather abstract with regard to the review stage. For example, the CQAF indicates that one can ensure that the results of quality care measurements will be used, via a combination of control and development meetings within an institution, and by involving all stakeholders in the review stage. The CQAF model neither provides specific information on "why this particular approach is recommended", nor "how to do it". In our view for many VET providers the CQAF will have to be formulated in more operational terms to be of use for them.

Institutes for training VET practitioners with respect to Quality Assurance may benefit from the guidelines as training and external support will be vital for assuring its successful implementation.

1.3 Overview of the Contents of the Book

The book has the following structure. The second chapter presents the theoretical framework which was used for investigating which factors enable or constrain a successful review within Quality Assurance activities.

Next, for each of the six countries involved in the project a description of their Quality Assurance structures in (I)VET, and the case study results (the study of the factors critical for successful review) are presented in Chapters 3 up to and including Chapter 8. Chapter 9 presents the results of the transnational analysis of critical success factors for successful review, and general conclusions and reflections on Quality Assurance in the European (I)VET institutions studies. Finally, the last chapter of the book includes the final, English version of the guidelines for the Quality Assurance of Vocational Education and Training in EU countries.

Project partners: Danmarks Erhvervspaedagogiske Laereruddannelse (DEL), Denmark; Instituto per lo Sviluppo della Formazione Professionale dei Lavoratori (ISFOL), Italy; Institut Technik und Bildung (ITB), Universität Bremen, Germany; International Unit, Qualifications and Curriculum Authority (QCA),

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Project website: For more detailed information about REVIMP, including its case studies, go to http://www.revimp.org/

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Chapter 2
A Theoretical Framework for Analysing the Implementation and Effects of Quality Assurance Systems in European VET

Adrie J. Visscher

2.1 Introduction

This chapter presents a framework including which factors are expected to influence the successful introduction of Quality Assurance Systems (QASs) in European (I)VET. The framework has been tested in six European countries (the results will be presented in Chapters 3–8) to clarify which factors matter for a successful review stage, and to have a basis for developing guidelines for successful review in Quality Assurance.

First, Section 2.2 presents a framework portraying the relevant *groups* of factors and their relationships, after which each element of each group of factors is discussed in depth in order to identify all relevant factors. The conclusion Section 2.3 presents an overview of the detailed content of the framework for the REVIMP project.

2.2 The Factors that Matter

Since a generally accepted framework, including the factors influencing the use and impact of Quality Assurance Systems (QASs) is missing, the groups of factors that are supposed to matter have been identified by studying the relevant literature. The literature on educational innovation reflects the research on introducing innovations into educational practice. The literature on the organisational nature of educational institutions can help in generating ideas on how the features of QASs and school characteristics match. QASs can be seen as information systems (computer-supported or not) providing schools with information on their functioning. The literature on the design and implementation of (school) information systems may

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be helpful in determining factors that play a role here and therefore has been studied too.

The following three groups of features are mentioned frequently in the literature studied (e.g. Björn-Andersen, Eason, & Robey 1986; Dalin, & Ayono 1994; Fullan 1992, 1993; Mayntz 1984; Rogers 1983; Stasz, Bikson, & Shapiro 1986) as groups of factors influencing the outcomes of (educational) innovations:

1. innovation content;
2. the innovating unit;
3. the innovation strategy used.

It seems extremely plausible that these three groups of factors are also relevant for the success of designing and implementing QASs. Group (1) then concerns the (quality) characteristics of the QAS concerned. The other two groups of factors indicate that the results of implementing QASs are also dependent on the characteristics of the innovating units (schools) and on the implementation strategy used for introducing QASs into schools.

In our view a fourth group of factors should also be added since the nature and quality of a QAS is not just a natural phenomenon. The features of QASs are highly dependent on the strategy that has been followed for its design (cf. Björn-Andersen et al. 1986; Maslowski, & Visscher 1999a; Mayntz 1984; Rogers 1983). The design strategy, for instance, can be of the 'quick and dirty' kind, or be more profound and meaningful. We will elaborate on this later, but it is clear, hopefully, that each strategy has an impact on the characteristics of a QAS design.

Figure 2.1 presents a model depicting the assumed relationships between the four groups of factors (Blocks A–D) on the one hand, and the use (Block E) and impact (Block F) of QASs on the other. Since the Blocks in Fig. 2.1 are related, a choice in one Block has consequences for one or more of the other Blocks.

The figure shows that the nature and intensity of QAS-use is supposed to be influenced by the QAS-features (which result from the features of the design process). The nature of the implementation process and school characteristics are also supposed to influence QAS-use. The implementation process can promote QAS-use directly (e.g. by supporting schools in accomplishing the innovation), or indirectly (e.g. via training school staff in the required QAS skills). Finally, the degree of QAS-use, and the way in which it is used, are expected to lead to intended and unintended effects.

It is important to stress that Fig. 2.1 is meant to clarify which factors influence QAS-use and the resultant effects (so Blocks E and F are crucial). In other words, the figure neither shows how *all* factors contribute to the effects in Block F nor how other blocks in the figure are related. If the latter would have been the case, arrows could have been drawn from Block D to C, E to D, C to B, and from Block F to Block B.

Figure 2.1 also indicates that the school environment plays a role. For example, the extent to which the school board, district and the community play an active role

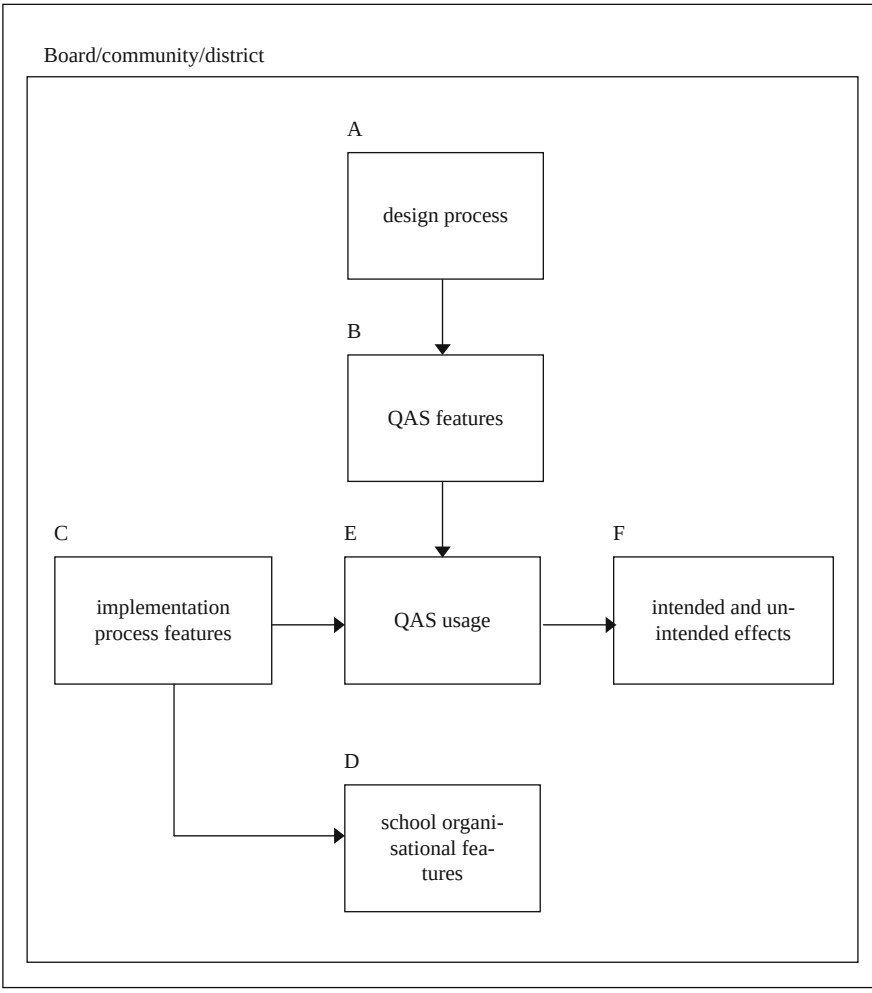

Fig. 2.1 The relationships between the groups of factors

in running the schools and demand high school quality may influence to what degree schools use a QAS to improve performance. This applies to educational systems generally. If accountability of school functioning is a hot issue (for instance shown by published league tables and 'punishments' for under-performing schools) then schools may be more inclined to improve than when external quality control is only weak, and parents/students are unable to choose the school of their choice. The educational system can also play a different, more supporting role by providing schools with the resources required for change and improvement.

Each of the blocks in Fig. 2.1 is now discussed in more detail.

Block A: The Design Process

The design of a QAS can differ in many respects. Three aspects are discussed here.

a. The Goal(s) of Designing a QAS

'School improvement' is usually the central goal for designing QASs. However, some QAS designers may want to design systems that will also serve other goals, like accountability and certification.

Each design goal mentioned may require its own set of performance indicators, therefore QAS-designers should be well aware which goals they aim to serve.

For *accountability* purposes a few school performance indicators may do, e.g. indicators on overall school performance, performance per school type, a few subject categories and the student drop-out rate.

The *school improvement* goal is more difficult to accomplish as it requires a refined insight into performance and the relationship between performance and other school characteristics, e.g. school leadership, the nature of instructional processes, school co-ordination etc.

b. Design Strategies

Maslowski and Visscher (1999a) make a distinction between four design approaches, the central features of which are summarised here:

1. *The planning by objectives model*: the formulation of design objectives based on a preliminary problem analysis as a basis for specifying the means to reach these ends.
2. *The prototyping model*: a preliminary statement of needs and objectives is made, a global outline of the design is constructed, or specific parts are developed in detail and then evaluated. The assumption is that the ideal features of the innovation cannot be determined in advance and, therefore, need to be clarified in an iterative design-evaluation process.
3. *The deliberative model*: here communication and negotiation between stakeholders in the design process is considered crucial to reaching consensus on the problem to be solved, the desired outcome, and how it will be accomplished. Consensus between participants serves as a shared frame of reference and legitimises the decisions taken. It may well be predicted that innovation developed in a top–down manner will probably have a low degree of user-acceptance (Mumford, & Weir 1979; Ives, Olson, & Baroudi 1983; Visscher et al. 2001). Gross et al. (1971) suggest avoiding top–down innovation because it causes resistance, whereas some degree of user participation stimulates user commitment. The degree to which users can influence decisions on the nature of innovation and consider it 'their' innovation (the 'ownership' concept is often referred to here (Miles 1998)) has proven crucial for acceptance and use.
4. *The artistic model*: it is assumed here that the practice of design is not as rational as the literature presumes and cannot be reduced to a simple design heuristic that

works under all circumstances. Because of the uncertainty about the problem and the intended outcomes the developer 'communicates with the situation' (Schön 1983) to solve it.

The four models point to a number of interesting aspects of design strategies with implications for our framework:

- how problem analysis is carried out, and how objectives and means are formulated in QAS design;
- the extent to which QAS prototypes are developed and evaluated;
- the extent to which the various stakeholders communicate with each other and influence decisions on the desired QAS, and the way it will be accomplished. If practitioners have more of a say, they may develop ownership, take its findings seriously and make more effort to apply the results (cf. Huberman 1987; Weiss 1998). Huberman (1989) reports on 'sustained interactivity' discussions that endured over a year or more. Although there is some evidence for the proposed co-operation, involving more participants makes reaching consensus increasingly difficult;
- the non-linear, creative side of QAS design.

2.2.1 Formative Evaluation in the Design of QAS Prototypes

Because of the importance of evaluating the preliminary design outcomes for the overall quality of the final QAS, this receives special attention here.

The body of knowledge on formative evaluation techniques that can be applied in the design and development of QASs is large, but often underused. As a result, developers waste resources in terms of time, money and expertise and innovations are produced that have flaws and do not, or only partially, lead to the desired effects. For instance, the new design product may not be of a better quality than already existing alternatives, or is of a very high quality but cannot be used by its target group because it does not match its characteristics.

Evaluation can fulfil various functions (Maslowski, & Visscher 1999a). In this respect, Scriven (1967) distinguishes between formative and summative evaluations. *Summative evaluations* are carried out by, or under the authority of, bodies that use the evaluation results for other purposes than design improvement. Such evaluations may lead to the decision to buy a product, or to continue or stop an innovation project.

Formative evaluation is carried out to improve design-products. It ideally produces the information required for an optimal design and is carried out by, or for, a person or body who can improve the design. It can help in the early determination and correcting of design deficiencies, thereby preventing undesired effects, unnecessary costs and increasing design effectiveness. Ideally, formative evaluation forms an integrated part of the design process and is also carried out after design implementation, since a design often needs adaptation as a result of the experience gained during its introduction and use.

Although formative evaluation is aimed at the determination of the merits and demerits of a design in order to generate suggestions for improvement, it is strictly no sufficient basis for it (Scriven 1991). Conceptually, a distinction should be made between *description* (to describe a design on its relevant characteristics), *evaluation* (judging its value), and *diagnosis* (categorising aspects of a design on the basis of the features observed in the evaluation).

Making a diagnosis concerns the search for a best label for an observed deficiency (just like a doctor recognises a syndrome in observed symptoms). The diagnosis does not imply the availability of an *explanation* of the cause for an observed deficiency. Insight into the cause of a problem is however desirable since otherwise there is the danger that *remediation* only controls symptoms.

It should be stressed that if a design is not entirely satisfactory, this does not always imply that remediation is possible. Even if improvement is possible, the designer needs a suitable remedy. If that requirement is fulfilled this does not necessarily mean that the deficiency has to be removed. For example, the seriousness of the observed deficiency may be too insignificant compared to another design problem. Moreover, it may be expected that the benefits of revision will not outweigh the resources required for remediation, or removing the deficiency may lead to serious, undesired side effects (Fig. 2.2).

Fig. 2.2 Five stages in the process of design improvement

Summarising, formative evaluation is considered of great importance in designing QASs, and should therefore be planned and used as much as possible. However, QAS evaluation will only lead to design improvement in those cases where QAS deficiencies can be removed without having a diagnosis and explanation. In other words, design improvement in addition to evaluative activities usually requires pre-evaluation (description) and post-evaluation (diagnosis, explanation and remediation). This does not change the fact that evaluation is the first and crucial step on the road to design optimisation. Besides, it is advisable not to restrict QAS evaluations to determining deficiencies, but to estimate the gravity and possible cause of deficiencies as well as the need for prototype-improvement and the estimated costs and benefits of such improvements.

c. The Standardisation–Flexibility Problem

Another important aspect of the design process is how to address the standardisation–flexibility problem. Schools often vary regarding the type of information they like to receive or retrieve from an information system (cf. Visscher et al. 2001) and as such may prefer a tailor-made QAS. However, for reasons of efficient QAS maintenance, QAS designers may prefer a *standard* system for all

schools. Ideally, a QAS is so flexible that it satisfies requirements uniform to all schools as well as varying information needs among schools. In practice it will be hard to fulfil both goals completely, implying that a compromise between both is usually the most feasible.

Block B: The QAS Features

The design and development work carried out in Block A of Fig. 2.1 will result in a QAS with a certain intrinsic, context-free quality (merit) and an extrinsic, context-determined quality (worth). The former refers to the scientific foundation of a design product, i.e. the extent to which the design choices are grounded theoretically. In case of a high intrinsic quality, the most up-to-date knowledge and insights from the field have been applied. The components of the design product are then consistent with each other. However, a grounded QAS may not be usable by the target group because, for example, the educational system as a whole is regulated so intensively that there is no room for school improvement policies at all. Usability, in other words, requires that an QAS be tailored to both the characteristics of users and to the features of the situation for which it is designed.

Translating the quality aspects of computer-assisted school information systems (cf. Visscher et al. 2001), the standards for programme evaluation (Sanders 1994), the utilisation of evaluation findings (Weiss 1998), and relevant elements of the educational innovation literature (e.g. Fullan 1992; Hargreaves et al. 1998) to the context of QASs means QASs can differ in the extent to which:

- information is *valid,* e.g. value-added data versus raw data, based on multi-level analysis, or aggregated data and the extent to which QAS data *cover school quality* (e.g. indicators on the performance of the overall school, school divisions, departments, teachers). Whitford and Jones (1998) state that for school improvement the feedback information should be as detailed as the complexity of schooling;
- information is *reliable*;
- information is *up-to-date*: "Timeliness is a useful feature of a report dedicated to utility" (Weiss 1998);
- data is *relevant* for practitioners, fits with their needs and reduces their uncertainty;
- QAS data indicates both *relative* and *absolute* school performance;
- data shows values for such *factors* as *trends* over time, *relationships* between data and *differences* between *scores* measured at two or more instances (the latter for example to evaluate the effect of school policy);
- the QAS provides *standard* information, and allows in-depth analysis and *tailored* information for users;
- data is presented in an *accessible* and appealing manner (e.g. quantitatively, graphically);
- users are supported in *using* performance *data correctly,* e.g. the correct interpretation of value-added data;

- the QAS *requires* the investment of *time and effort* from school staff as a result of data collection and feedback;
- innovation is *complex* yet *clear*, i.e. the difficulty of the required change and the success of accomplishing it for those who need to make the change.
- the QAS provides *user-support in problem-solving* (e.g. via a manual, computer-aided help or helpline).

In terms of the evaluation standards of the Joint Committee on Standards for Educational Program Evaluation (Sanders 1994), most of these QAS aspects refer to:

1. *accuracy* standards which concentrate on research-technical criteria like objectivity, reliability and the validity of procedures, and
2. *utility* standards, i.e. the relevance of evaluations for educational practice.

The time investment QAS aspect required from school staff concerns a *feasibility* standard (the third group of standards of the Committee). Translating the last group of the Joint Committee's standards (i.e. *propriety*) into a QAS quality aspect could be the degree to which QAS evaluations harm persons/organisations unjustly, and are made available to all those affected by it.

Some of the QAS features are related to the literature on the (limited) use of evaluation outcomes, which is discussed in detail when Block E (QAS-use) is addressed.

All characteristics of a QAS *as perceived by its users* will in our view influence the level of system use: a more positive judgement will probably lead to more intensive QAS-use (Block E).

In Block B the importance of high quality QASs 'spitting out' high quality information was stressed. In Blocks C and D other critical success factors will be stressed since QAS quality is a necessary but insufficient precondition for the use and intended effects of QAS. Already in 1977 the Rand corporation showed in a study of 182 federally initiated school-improvement projects that the outcomes were dominated by implementation. In other words, features of schools and the change process itself were strongly related to positive outcomes (McLaughlin 1990).

Block C: Implementation Process Features

The review of the educational innovation literature provides general observations on how educational change and, more specifically, school improvement can be accomplished.

Several authors (Barber 1998; Calhoun, & Joyce 1998; Cuttance 1998; Fullan 1993; Stringfield et al. 1998) state that neither a 'pressure' approach nor a 'support' approach will 'do the trick'. The combination of the two is expected to have the highest probability of success. According to these authors, schools can be encouraged to improve their performance via the pressure of clear targets combined with external control like publishing school performance results in a market-oriented educational system in which parents choose the school of their preference. Hopkins

(1998) points to the fact that next to external control, incentives can also promote school improvement, for example, in the form of learning opportunities for school staff, more autonomy, and better results of professional work due to innovation.

Other authors are less optimistic about the pressure and support strategy (e.g. Slavin 1998). Slavin (1998), based on his long and extensive experience with school improvement projects, believes schools are incapable of improving themselves via the 'market model'. Even if schools like to improve as a result of this strategy then, according to Slavin, close to a hundred percent of schools will lack the capacity to diagnose their own situation and design remedies for the observed problems. For that reason, Slavin argues strongly for so-called comprehensive reform models like his well-known 'Success for All'. Such models are like prescriptions that have proved to be effective in cases of specific 'diseases'. In Slavin's view, schools not only differ in their performance but also in their reasons for under-performance, and in their innovation capacity ('readiness for change'). He labels ninety percent of schools as 'brick schools', five percent as 'sand schools' and another five percent as 'seed schools'. Each type of school needs a different reform strategy. Seed schools operate in fertile soil, they are powerful and once some sort of school organisation-development has resulted in a vision on what needs to be done, they can accomplish the goals set without materials from external bodies. Sand schools are satisfied with their performance and are also too unstable to improve their functioning. Brick schools do need help as they do not perceive a need to innovate themselves: they are best supported with proven reform packages, including manuals, professional development, instructional, curricular and organisational prescriptions that help them to improve brick by brick. Although the basis for Slavin's percentages is not clear, his point for tailored support is important. Slavin stresses that schools need tailored, external change facilitators to help them diagnose problems and formulate remedies. Networks of schools working on the same reform are also considered to be an effective way to exchange experiences, hints and ideas between schools. Dalin et al. (1993) makes a similar distinction: fragmented schools (low change capacity), project schools (average), and problem-solving schools (high change capacity).

Slavin is not the only researcher who thinks that schools cannot improve on their own. Hopkins (1998) also believes that many underperforming schools will be unable to determine on their own how to improve and accomplish the desired remedy, since it requires schools taking into account their own innovation capacity, culture, structure, performance level and problems. In his view tailored support is required and should also prevent reinvention of the wheel. According to Calhoun and Joyce (1998) lacking collegiality and non-instruction oriented improvement activities are the reason that schools do not improve on their own. Intensive and lengthy user-training and support, and the (re)design of the workplace (e.g. more staff co-operation) are a prerequisite for letting schools grow to higher innovation capacity levels.

Slavin's view is also supported by colleagues. Fullan (1998), Joyner (1998), Louis (1998), McLaughlin (1998) and Smith (1998) point to the varying innovation capacities of schools, the requirement of matching reform strategies, and reject the idea of one single effective strategy to change schools. Joyner states

that experimentation and experience-based adaptation are important: try-out, adapt, expand and improve (in other words, the importance of formative evaluation is stressed here again).

Smith (1998) adds that instead of generally applicable prescriptions the teacher as practitioner should be the point of departure if change is the goal, because of the repeatedly proven role of context. In his view the teacher understands the complexity of practice and is the one who formulates goals and changes that, after extensive training, can be accomplished. The new behaviour in that case is adapted to the specific user-context. McLaughlin (1998), based on the well-known Rand studies, concludes that local choices are a crucial factor in school improvement enterprises: "change ultimately is a problem of a smaller unit; the response of the individual at the end of the line". "Local variability is the rule, uniformity the exception". As a consequence of the decisive role of local capacity and will, McLaughlin thinks that central policies cannot mandate what matters. In the view of Louis (1998) the features of the local situation are so influential that the 'power of site or place' is infinite when it comes to change. The political agenda of stakeholders and the degree to which schools promote learning and possess the capacity to redesign themselves (self-management capacity) concerning site-characteristics, are very relevant, especially if schools receive performance information.

Fullan (1998) is also pessimistic regarding the possibility to change educational practice based on something like an educational change knowledge base, since in his view success in one school is no guarantee for change in the next situation: "There is no silver bullet". Dalin (1998) agrees that our knowledge base on how to improve is limited. Instead of assumptions we need better theories on similarities and differences between schools, e.g. regarding their cultures and growth states, and on which improvement strategies match with which development needs. Neither the top-down, structure-oriented, nor the process-oriented strategy are fine-tuned enough to address differences between schools.

Miles (1998), after forty years of school improvement work, concludes that "many propositions on school change lack an underlying causal mechanism". According to Miles we still lack a knowledge base on which relevant factors interact. More insight into the nature of schools is needed as a starting point for connecting innovation with the features of these organisations. He is not optimistic, however, about the probability that we will find solutions for all problems.

We have seen that several authors plead for a pressure and support approach to school improvement. Moreover, a single general reform strategy for changing many schools is rejected because of the observed differences in performance levels, their cause(s), innovation capacities and contexts. An experimental-evaluation-adaptation improvement strategy in combination with tailored, lengthy support is proposed.

Let us now have a closer look at which factors seem important in the process of implementing an QAS.

The process of change is so important because it will determine to what degree schools and their staff possess the right attitudes, skills and capacities for innovation. This will be discussed under Block D (i.e. school organisational features). Gross, Giacquinta and Bernstein (1971), based on their educational reform experience

some thirty years ago, have already stressed that even if the target users of a high quality innovation are willing to innovate, the implementation of the new idea is a separate and problematic stage of a change effort. They consider the implementation of a promising innovation as complex, time-consuming, fraught with potential obstacles, and hard to anticipate or control. The authors also stress that innovations are often mainly formulated at teacher-level and that too little attention is paid to the organisational change (new roles, status, norms) it presupposes.

Not surprisingly the training of target users is considered an important prerequisite for improving schools (Calhoun & Joyce 1998; Fullan 1998; Hopkins 1998; Stringfield et al. 1998). The training can focus on the skills required to fully implement the innovation, i.e. the interpretation of the QAS information, but also help to translate the information into school improvement activities, like, for example, learning new instructional strategies to achieve better student results (to strengthen the innovation capacity). Smith (1998) argues that only if the new behaviour to help solve the observed problem(s) is trained intensively may teachers be able to change their routines, deal with the uncertainty of innovation, and co-operate and integrate with colleagues.

The support of users in trying to deal with the uncertainty and problems they encounter in the innovation process is also mentioned frequently (Barber 1998; Calhoun & Joyce 1998; Barber 1998; Fullan 1998; Gross et al. 1971; Slavin 1998; Stringfield 1998; Whitford & Jones 1998). Various channels of support are mentioned: school-by-school networks, external change facilitators (Slavin 1998), and school-internal 'innovation-champions' (Gross et al., 1971). The external facilitators in co-operation with schools may assist in diagnosing the school situation and causes of under-performance, as well as developing remedies that may solve the problem.

A big problem with portraying the ideal implementation process is that we do have ideas and certain evidence that some factors play an important role, but we do not know how to accomplish such an implementation process. An interesting question is *how* staff development should look to accomplish these goals. Smith (1998), however, warns about using staff development too quickly and easily. It often turns out to be an 'incorrectly devised solution for a poorly understood problem'.

Under Block D the concept of 'organisational learning' is discussed. Briefly stated, it implies that daily, on-the-job team learning, and capacity building in response to a new and challenging task, are expected to be more effective than traditional off-the-job training.

Moreover, the need for continuous implementation monitoring on instruction and learning and, if necessary, adaptation is required (Gross et al. 1971; Hopkins 1998). When the process of designing QASs (Block A in Fig. 2.1) was discussed the importance of formative evaluation was stressed. This also applies to the design of strategies for solving problems in schools: if the desired effects do not occur, or not enough, the school policies and/or the school need to be adapted (McLaughlin speaks of the mutual adaptation of the innovation and local realities).

Stringfield et al. (1998), Hopkins (1998) and Reynolds (1998) stress that promoting and checking the school-wide consistency of implementations is essential

as performance differences *within* schools prove to be large. In Reynolds's view the goal should be to accomplish 'high-reliability schools', i.e. schools in which co-ordination is intense and the same high level of innovation implementation can be observed across the whole school.

The following features of the implementation process are considered relevant for the success of introducing QASs into schools:

1. A lengthy, intensive tailored *reform strategy* and *support*, e.g. assisting in school diagnosis, designing school change policies at class and school level. External change facilitators combined with information exchange via school networks: good examples can fulfil an important role here.
2. The extent, method and content of *user-training* is very important: clarification of innovation goals and means, motivating users for innovation, developing new organisational roles, values, information processing and school improvement skills.
3. The *pressure* to improve via external targets and control, competition between schools and incentives.
4. The encouragement of *user participation* and ownership in implementation.
5. Monitoring the *consistency* of *implementing* QASs and QAS based school innovations within schools as well as the *effects* of QAS implementation on classrooms and student achievement. If necessary, the implementation process should be adapted (more) to local conditions.
6. The provision of *extra innovation resources*, e.g. for releasing school staff from routine work.

Block D: School Organisational Features

Several authors stress that school staff must feel the need for a specific change, in other words, they must value the proposed change to implement it. When discussing the factors influencing knowledge utilisation, Louis (1998) refers to something similar: the perceived needs and the value of the information users receive. Fullan (1998) goes a little further when stating that what matters is the fit between the innovation and the need for this change relative to other needs. Gross, Giacquinta and Bernstein in their influential book on the school organisational aspects of educational innovations, written in 1971, already refer to this as the 'receptive innovation attitude'. In their view the attitude depends as much on the perceived benefits and losses of the proposed change as on the extent to which the risks of change as perceived by school staff have been taken away. House and McQuillan (1998) also point to the uncertainty of innovations for school staff: how new and hard is the new way and what is there to win? According to Fink and Stoll (1998) change can be difficult to accomplish because teachers have experienced that innovations have been designed poorly and are irrelevant.

Other school characteristics that probably influence the degree of QAS use concern some sort of ideal capacity level schools have. First of all, as already indicated under Block C, the innovation capacity of schools is important: the ability to

diagnose the school in relation to the proposed change, to design the required reform goals and interventions at classroom and/or at school level (Stringfield (1998) speaks of '(re)designing the workplace'), and to experiment, prioritise (Barber 1998), evaluate, adapt and improve. Hopkins (1998) adds that if performance information points to the malfunctioning of schools, schools must be able to diagnose their own situation with respect to performance levels, organisational strengths and weaknesses (e.g. the nature of the student population, internal relationships, leadership style), market position, data richness, and, based on that, design a suitable improvement strategy that includes interventions at school and classroom level (Cuttance 1998). According to Hopkins most school improvement efforts lack a thorough diagnosis of the school situation; most schools do not know how to change instruction effectively, and seldom is a reform strategy chosen that matches the growth stage of a school and its developmental capacities.

The innovation capacity of schools is probably related to the general policy-making capacity of schools. Elsewhere (Visscher 1992, 1999) we have stated that schools master this capacity to varying degrees. The area of instruction and curriculum is chiefly the territory of the teaching staff. School measures in this area are, therefore, less probable than in the area of what is considered the domain of school managers, the school resources (e.g. finance, personnel, external contacts). The degree of policy-making also differs between schools as well as within schools, e.g. departments, school management team, school board, school divisions. More intense policy-making within schools may go hand-in-hand with more school measures based on QAS information.

Various authors suppose that schools vary with respect to the degree to which they encourage and support organisational learning and improvement via the shared responsibility of staff for school organisational outcomes, shared goals, collegiality, information exchange and collaboration (e.g. Gross et al. 1971; Hopkins 1998; Joyner 1998; Keating 1998; Louis 1998). The learning school is characterised by staff who continually learn from each other and from experience and, by so doing, solve problems and improve on a continuous basis. Change and improvement are appreciated and promoted in such organisations. This capacity may, however, be influenced negatively by conflicting interests of stakeholders (House & McQuillan 1998; Louis 1998) and result in learning-impoverished schools. Conversely, cooperation with other school staff can make schools more learning-enriched by shaping the organisational conditions necessary for success, e.g. developing shared goals, (e.g. Barber 1998; West 1998), collaborative work structures (Joyner 1998; Keating 1998; Whitford & Jones 1998), and monitoring organisational results systematically. In learning organisations with a collegial and open-for-evaluation culture, a QAS can be a valuable tool for 'piecemeal refinement of the existing order' (Lander & Ekholm 1998). On the other hand this may imply that as a result of intensified collaboration between teachers professional autonomy is undermined, which may not be very appealing to school staff.

According to Nias (1998) collegial support is most likely to occur in schools in which collaboration and sharing is the norm since if it is not the case teachers may not be inclined to consult colleagues because that may be considered a sign of

incompetence (see also Witziers 1992). Barriers for social interaction and organisational learning may also be found in variation in expertise, a lack of respect, and not taking responsibility for organisational outcomes.

One other school characteristic that may be relevant for our innovation concerns the degree to which the coordination of activities is intense within schools (Giacquinta 1998).

Finally, school staff are usually fully occupied with their routine activities and, therefore, will not have much time to invest in innovation, which will be especially problematic if the change presupposes the learning of new roles (e.g. team teaching, new teaching strategies). It will, therefore, help if schools can be provided with the resources required for change (e.g. released from routine work, materials). Some authors estimate that school staff can only devote 10–15% of their time to systematic school improvement, implying that change, especially if it requires the command of new, complex behaviour, is very slow.

The following school organisational features of schools are considered important for schools using a QAS:

1. The *level of performance* of schools: relatively low levels combined with the pressure strategy may motivate schools more to try to improve performance by using a QAS.
2. The *innovation attitude* of school staff: receptive or not.
3. The *innovation capacity*: being aware of the school's performance level, structure, culture, problems and the capacity to evaluate, to design reform goals and means, interventions at school and classroom level, experimenting, evaluating, adaptations and improving.
4. The degree to which schools promote *organisational learning*: encouragement and support via shared responsibilities for school goals/outcomes, collaborative work structures, exchange of information, experimentation and innovation.
5. *New skills*: interpretation of QAS output.
6. *High/low reliability schools*: the degree to which classroom and other school activities are co-ordinated.
7. Allocation of *school resources* to innovation activities.

Block E: QAS Use

What does QAS use actually encompass? One element of use concerns the analysis and interpretation of the information received. This may not always be easy as some of the outcomes are the product of the use of complex statistical techniques. Their correct interpretation requires some knowledge of statistical concepts like value-added scores, correlations, and confidence intervals. Ideally, users would have been trained in this respect. Another aspect of QAS use concerns the utilisation of the information schools receive for improving their functioning, i.e. deciding to act to improve, and acting on it as much as possible.

In the evaluation literature a distinction is made between three types of utilisation (Rossi & Freeman 1993):

1. *direct or instrumental*: the decision-maker analyses the information before taking a decision, and bases decisions and actions on this;
2. *conceptual*: less visible but also important is the extent to which the evaluative information influences the thinking of decision-makers and as such may have an impact on their actions;
3. *convincing (symbolic)*: this type of use concerns using information in support of someone's own viewpoints in a discussion with others. Information is then used selectively to legitimise an opinion already held.

Huberman (1987) and Louis (1998) stress that using research information is not likely at all and that, if it occurs, its effects will only be observable after a long time. Weiss (1998) based on her research into the use of evaluation findings concludes that evaluation information can be used partially, in fragments intermittently, inappropriately, or not at all. Weiss stresses that all efforts at dissemination assume implicitly that the evaluator knows some truth that practitioners should know, and that the new knowledge will lead to behavioural change. This assumption has not held up under many conditions. New knowledge is often not enough, social supports are often required too, as are new resources, strong motivation and commitment to improve. She points to where along the path 'use' can break down. Practitioners may not hear about the results of an evaluation at all. They may hear about the results but not understand them. They may understand them but not believe them. They may believe them but not know what to do about them. They may know what could be done but believe they cannot do anything about the results, because they lack either the authority, the resources, or the skills to make changes. Or, they may not take action because they are satisfied with the way things are going now. In a good scenario they may start to take action, but then they run into roadblocks (e.g. no skills, no time) and grind to a halt. Only if many elements fall into line will they understand the implications of the findings for action, have the necessary resources for action, and successfully take action. She, therefore, suggests that evaluation results are 'used' if practitioners get to the stage of knowing about and believing in evaluation results and can consider what to do. Use of evaluation, according to Weiss, is relatively simple if it requires changes which are simple, cheap, within teachers' existing repertoire, consonant with prevalent organisational practices and policies, and do not run afoul of political or ideological commitments. She indicates that if the implied changes are more controversial or far-reaching, then even her relatively generous definition of 'use' can become problematic. For evaluation results to be influential, evaluators need research skills as well as responsiveness to practitioners' questions/perspectives and communication abilities. School staff have to input their awareness of the issues involved. Weiss points to the fact that all strategies for improving evaluation-use rely on the supply-side; evaluators need to improve their work. She recommends that the demand side, i.e. school users, should be on their feet searching for good information. They should be motivated to improve the quality of their work, while school managers have the responsibility to motivate and support their staff to achieve the highest possible levels.

Huberman (1987) has analysed which factors influence using the outcomes of policy-oriented research. Although the evaluative information QASs provide is of a somewhat different nature we think that many of the factors Huberman discusses may well apply to QAS use. Huberman distinguishes between three models, each looking at the use of evaluation results from a different perspective:

a. that of the supposed users of the information;
b. that of the researchers;
c. that of the effort needed to accomplish the utilisation.

Under Block B it was already mentioned that, according to Huberman (1987), target users will use research information more if they have had the opportunity to influence its characteristics. This also goes for the users' degree of positive experience with research, and how they value the quality of the research. Researchers promote utilisation by target users more if they are experienced in this respect, their organisation promotes it, they have the resources and their findings fit with practitioners' needs and terminology. Most important for use is the linking of users and researchers. In Huberman's opinion, linking mechanisms that influence user understanding are:

- users' dependency of the research data;
- quality of personal relationships;
- credibility of researchers;
- involvement of researchers in research stages.
- Finally, the dissemination effort plays an important role:
- the resources spent on it;
- the timing of results and the degree to which they reduce users' uncertainty;
- the quality of dissemination: usable outcomes, various dissemination channels, repetitive feedback, researchers' involvement in utilisation;
- quality of written research products: legibility, practical recommendations, alterable factors, attractive and applicable.

Bryk and Hermanson (1993) have written an interesting publication on educational indicator systems (EISs) in the *Review of Research in Education*. Although the systems they refer to are somewhat of a different nature (indicators published for accountability as well as for school improvement purposes) than QASs, there is considerable resemblance between the issues surrounding both types of system. The authors question the premises underlying EISs about schools, their aims, control and about how information can help there. In their view these assumptions are simplistic because the idea is that school operations can be represented as a production function, and information on the critical factors can be used directly and instrumentally to control schools. Our know-how about schooling, however, is too partial. The authors plea for more prudent aspirations. In their view non-authoritative, social scientific knowledge does not allow an 'engineering' approach in which information on the state of a system can directly be translated into corrective, control

actions. They also stress that political processes influence social problem solving, and that the idea of an individual decision-maker is a myth (see also, Weiss & Bucavalas 1980). 'Street level bureaucrats' shape policy-implementation. Moreover, more information is not always better as we may be less certain as to what it means. Important is whether we act more prudently as a result of the new information. The data from EISs also do not allow causal analysis, they represent the phenomena under study very simplistically and incompletely, e.g. no interaction between factors, and not the constraints and dilemmas of reality. The complexity of schooling cannot be identified with one or a few factors, multiple factors play a role that may amplify each other through interdependent feedback loops. We do not know how the components mesh together in the system that we try to improve. Frederiksen and Collins (1989) warn for unknown changes in schools as organic systems. Basic ideas about what is right, proper and just determine what happens in schools. Changing the values and understandings that ground the personal interaction on which teaching and learning draw in the social system called school may result from introducing EISs into schools. Information from EISs should, therefore, be contextualised to be used prudently, otherwise the indicators become the model of schooling: ".... the conceptual structure of the indicator system will have exercised a hegemony over action that is simply unwarranted" (Bryk & Hermanson 1993, pp. 457–458). They also warn for undesirable effects of pulling on visible 'strands in the tapestry'. "While the potential is broadly acclaimed, the precise mechanisms through which information will influence the educational system are left largely unaddressed" (p. 458).

Instead of the optimistic idea of instrumental use of evaluative data Bryk and Hermanson, like Weiss, prefer an 'enlightenment' function (Weiss 1977, 1998) of indicators: they can broaden our understanding of problems and trigger new ideas, but rarely provide specific solutions for school improvement. Indicators can, however, be valuable in 'pre-policy' formulation. The data tell us how we are doing, help in defining problem areas that need closer attention, and stimulate discussion about possible solutions. The EISs can deepen our understanding, and stimulate discourse and further analysis and action. However, they do not tell us "what we should be doing"; the latter is very complex and requires much understanding and judgement. It will take time to change the ideas and values of those who work in education, but if it happens this can be very powerful because it will influence school policy-making, the definition of problems and the actions taken.

Sebba and Loose (1997) also observe problems with respect to using performance information for school improvement. They report that although schools in general become more data-driven and develop more evidence-led improvement strategies as a result of receiving external performance data, it at the same time proves to be difficult for them to draw up an action plan. Schools take years to work on their targets. Pupil data does not automatically lead to a reflection on the quality and nature of teaching in their school. Only some responses to the data appear to be action-responses, others are clearly detrimental to the school improvement process. According to Sebba and Loose, for the data to be used for school improvement it proves important that the goals of the data-collection are transparent to staff and

that they do not have to be afraid for other purposes (e.g. accountability) of data-collection.

In line with what has been said under Block A on the evaluation and improvement of design-prototypes, it is supposed here that the design of school improvement policies in response to under-performance of schools encompasses the same elements: problem-diagnosis, detection of its cause(s), and the design of a remedy. In most cases these prerequisites for school improvement will be very hard to fulfil.

Saunders and Rudd (1999) analysed how nine schools used value-added performance information. They found that providing this information to schools concerns an intervention which needs to be managed since some school managers do not know what to do with the information. The data does not seem to speak for itself and is not always understood. Training and support therefore make a difference for its use. Schools' data use proves to be in accordance with their relative effectiveness (e.g. more effective, less use) which raises the question how relatively well functioning schools can be stimulated to improve. External support, and the management style/school culture prove to influence what use was made of the data and whether in-service training was sought. The meaning of the value-added data is socially constructed and forms an interaction between the actual numbers, their political significance, and the skills and values of staff.

The researchers distinguish between three types of data use: literal, provisional (i.e. to initiate questions on schools' functioning), and sceptical (considered as something external which does not add to "what I know about my kids".

In the view of Saunders and Rudd the psychology and sociology of numbers asks for further study. Especially trusting data seems important for their use just as is the way of presenting data to schools.

Little is known on how schools deal with external evaluations of their functioning, e.g. by the inspectorate or other bodies. Such a study cannot be executed via questionnaires but requires longitudinal, in-depth analyses of how schools act when utilising the evaluations. This is what has been done by Gray et al. (1999). They studied twelve schools in depth over three years with respect to what they call 'naturally occurring school improvement', i.e. how schools respond to nationally generated demands for school change like published school league tables.

The study reveals interesting findings on what the abstract concept of 'school improvement' means for the reality of schools.

- For a school to improve is a considerable challenge and takes years. Only about 10% of the schools improved, another 10% deteriorated. The performance differences between schools did not change.
- Three different routes to improvement could be observed:
  - the *tactical* way, i.e. improving student performance via more monitoring, exams, and the support of 'borderline' students[1], which does not lead to sustained school improvement.

[1] Students performing just below the required level who can be moved to the required level with relatively little effort.

  - *strategic thinking*: more rapidly improving schools accomplish this by developing school policies, focusing on weak school areas and starting to work on classroom activities.
  - *capacity building* for continuous school improvement. The rare school who does this pulls all relevant levers for change, knows how it wants to enhance learning, learns from classroom experience, is open for advice and encourages staff's professional development.
- The changes accomplished often concerned matters like parental involvement in schools' activities, pupil behaviour policies, strategies for maximising exam grades, the management style and structure of the school management team.
- Schools seldom changed the processes of teaching and learning at classroom level, or tried to improve departmental functioning.
- In half the schools there was a 'resistant group' consisting of teachers who blocked the change process.
- Schools that rapidly improved used various tactics to maximise exam grades, policies to support teaching and learning, work at classroom level, and further gave responsibilities to students simultaneously (e.g. homework and textbook policies).
- Successfully improving schools facilitate more discussion among staff about classroom issues and, in doing that, accomplish subtle but influential changes at that level. According to Gray et al. changing teachers' attitudes and teaching behaviour is very difficult (e.g. collegial observation and buddying are rare), however, and it takes the core of school improvement instead of school level initiatives to ripple through to the classroom. The departmental level is closer to the classroom and probably a good lever for change.
- Schools do not analyse their situation at length prior to launching into change programmes, neither do they try to incorporate the change goals into the heads of school staff, nor elaborate a plan to accomplish the change goals. They intuitively 'get the ball rolling' and thereafter add to that. A match between activities at school level on the one hand and classroom and departmental activities on the other is lacking (even departments operate in isolation) if they try to improve.
- Many schools when changing intensify teachers' workload by asking them to do and learn more, and as such add stress and burden at that level.

In general, similar to what was found in the educational innovation literature (Block C) it is naive to expect that one specific method will make all schools better, as schools differ in performance, starting points and contexts. In the view of the researchers the contexts are at least as influential as any initiative schools might launch! Some change strategies do work, for example in socially advantaged contexts, but not elsewhere. Although Gray et al. state that we do not know which are the most relevant contextual factors, they indicate that schools' 'inheritance' matters for school improvement: e.g. the mix of staff attitudes, their age and turnover, leadership styles, and the existence of resistant cliques. Similar to what is done in school effectiveness research, Gray et al. hold a plea that in school improvement studies like should be compared with like to determine relative improvement, i.e. compare schools that operate in similar contexts.

The idea of naturally occurring school improvement proves to be unrealistic. Although not sought by schools, external support is an important prerequisite and important to preventing the reinvention of the wheel and to accomplish change.

Gray et al. (1999) conclude that given the amounts of time and energy schools are being asked to invest, we should have better answers by now on how to improve. More experimentation and evaluation on changing classroom life is therefore urgently needed in their view.

Although the findings of this study cannot be generalised because of its exploratory character, they are very valuable since they show how a number of schools try to accomplish change which in most cases proves to be rather different from the optimistic assumption of how performance information will make schools improve themselves. Improvement, if it happens, proves to come very, very slowly. One of the reasons probably being that schools that do change master several skills which they can apply simultaneously. Most schools do not innovate in a systematic matter, they intuitively develop ad hoc actions. Change especially proves to be a thing outside the classroom and is often a matter of isolated activities and an increased burden for schools. Extra resources for working on new activities are rare. Although tailored change strategies and tailored support seem to be important because of the contextual differences between schools, schools do not seek them.

Block F: The Intended and Unintended Effects

In our view the ultimate goal of introducing QASs should be the improvement of school performance, i.e. higher, value-added school scores as a result of using QAS information. It will probably take a long time to improve school performance in this way (see Block E) and to show this type of progress unequivocally. As long as this goal has not been accomplished it will be interesting to investigate to what degree some important prerequisites for improved school performance can be observed like:

- the development and execution of school improvement strategies in various school policy areas, e.g. resources, subject matter, instructional strategies;
- a stronger orientation of school staff to high student achievement;
- improved teaching;
- changes in school organisational processes and structures because using QAS output presupposes staff cooperation, communication and leadership.

However, it is also important to look for possible negative, unintended effects of introducing QASs. Visscher (2001) refers to Smith (1995) who presents a profound analysis of the unintended, strategical consequences of *publishing* performance data. Translated to the world of schools one can for example think of the following strategic actions of schools:

- concentrating on those students where most ‘profit’ can be gained;
- selective student admissions;
- removing ‘difficult’ students;
- concentrating on the indicators to the exclusion of other qualifications;

- teaching for the test;
- consciously depressing baseline test scores to obtain high value-added scores.

2.3 Conclusion

The theoretical analysis carried out in Section 2.2 based on a review of the relevant literature has clarified the facts that QASs are promising levers for school reform and improvement but that many varying factors most probably influence the outcomes of introducing these into schools. Because of the complexity of this innovation, careful strategies for the design of high quality QASs are needed as are implementation strategies that take account of the characteristics of each school and fulfil the requirements for planned QAS use.

It was stressed that direct usage of QASs and subsequent improved school functioning cannot be assumed. If both are accomplished, it will be a gradual, lengthy process. Careful quasi-experimental research is needed to obtain better insight into these change processes and how the problems that emerge may be solved.

The theoretical framework was tested in a pilot before the real investigations started. The pilot showed that some factors found in the literature review were not that relevant for the (I)VET context; these factors were excluded from the framework. Other factors, often factors of a more practical kind, were added to our framework because the pilot indicated that they were relevant. Figure 2.3 shows the framework including all the factors studied in the REVIMP project.

The comparison of the factors discussed in Section 2.2 with the factors included in Fig. 2.3 points to a number of differences, which are explained below.

Block A

- The ‘standardization–xibility’ factor was excluded.
- The ‘design strategy’ factor was narrowed down to ‘Designer features’ as an important distinction proved to be whether the QAS was self-made (tailor-made), or bought (standardized QASs).

Block B

- The factors ‘reliable information’, ‘up-to-date information’, ‘relevant information’ were excluded as these aspects of the quality of the QAS-information in the practical context of IVET were all included in the factor ‘valid information’.
- The factor ‘variables, trends, interrelationships, difference scores’ was excluded as it was not considered very important in the IVET context.
- The factor ‘standard or tailored information’ was excluded as it is covered by the new A-block factor ‘Designer features’.

Two factors were added because the pilot test pointed to their relevance: the main QA indicators used in IVET institution; and the features of the QAS procedures within schools.

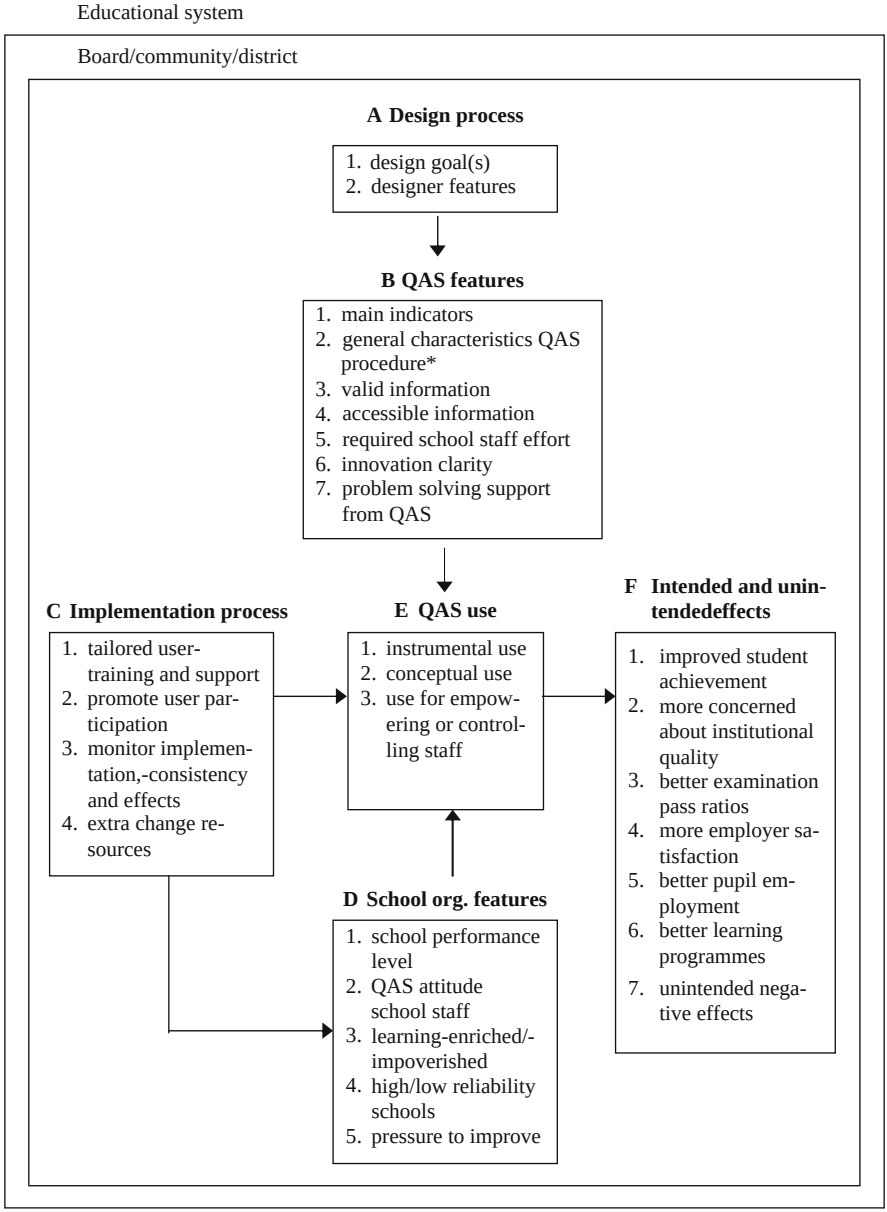

Fig. 2.3 The factors influencing QAS-use, and the effects of QAS-use studied

* data collection method, respondents, data processing, output, relative–absolute information, data distribution, discussion data, data publication

Block C

- The factor ‘pressure to improve’ is considered to be an aspect of the school (the pressure on the school to improve) and therefore moved to Block D.

Block D

- The factor ‘innovation capacity’ was excluded as this school feature is well covered by the factor ‘learning-enriched/-impoverished’.
- The factor ‘new skills’ is covered by the C-factor ‘tailored user-training and support’ as it is assumed that school staff will not have the skills required for Quality Assurance without such training activities.
- The factor ‘allocation extra resources’ was excluded as it is assumed that this factor is covered by the C-block factor ‘extra change resources’.

Block E

- One factor was added: the extent to which the QAS is used for either empowering, or for controlling staff.

Block F

A number of potential effects of QAS-use were added after the pilot test as they proved to be important in the IVET context:

- More concerned about institutional quality;
- Better examination pass ratios;
- More employer satisfaction;
- Better pupil employment;
- Better learning programmes.

A few other potential effects were excluded from the framework: ‘intensified achievement orientation’, ‘better student drop out ratio’, ‘improved teaching’, and ‘improvement in other areas’.

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Chapter 3
Factors Influencing the Use of Quality Assurance Data in Dutch (I)VET for the Health Care Sector

Maria Hendriks and Adrie Visscher

3.1 The Dutch Context of Quality Assurance in (I)VET

3.1.1 Structure and Organisation of Dutch (I)VET

In its current shape senior secondary vocational education has existed since 1996. Before that date, two types of senior secondary education co-existed: the apprenticeship system and senior secondary vocational education organised in schools. The apprenticeship system offered professional training courses in a great number of branches of industry, and was characterised by a combination of learning in practice and learning in school. Senior secondary vocational education in schools dates from the 1950s, when schools for senior secondary technical education were established. At a later stage secondary vocational schools were also founded for other sectors like economics and social services.

During the early 1990s, the need arose to make education and training more integrated and national. Varying education and training structures had to be integrated into one national qualification structure, and the creation of Regional Education and Training Centres (the Dutch acronym is ROCs) instead of the existing huge number of small schools. These priorities were implemented through the Act on Vocational and Adult Education (*Wet Educatie en Beroepsonderwijs,*WEB) which was introduced in stages between January 1996 and January 2000. In January 2000, the new funding system was introduced: educational institutions are now funded partly on the basis of student numbers per course and learning pathway, and partly on the basis of the numbers of students gaining qualifications.

In 2005, the adult and vocational education sector comprised 42 Regional Training Centres (ROCs) excluding 'green' education, 13 specialist trade colleges, 2 strict Dutch Reformed Institutions, 1 MBO institution integrated into an HBO institution, and 2 MBO institutions for the deaf. Vocational education offers participants from the age of 16 a choice of 700 vocational courses, four training levels,

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and various routes for following courses. There is a full-time college-based route that includes work placements. The alternative route is the part-time work-based route, which combines part-time education with apprenticeships in companies.

Vocational education is provided for three sectors: Engineering and Technology, Economics, and Health & Social Care. Agricultural Training Centres provide vocational education for the sectors Agriculture, Natural Environment, and Food Technology.

Vocational Education and Training comprises block or day-release system programmes (BBL), and vocational training (BOL). Within BBL, the focus is on practical training (involving 60% or more of the duration of the course), in BOL practical training takes up between 20% and 60% of the course. The block or day-release system programmes (BBL) have their origin in the apprenticeship system; the vocational training courses have their background in vocational schools. Vocational training (BOL) can be taken either full-time or part-time and courses can be taken at four qualification levels:

- Level 1: assistant training;
- Level 2: basic vocational training (the diploma awarded at this level is equivalent to the basic qualification level, which is the minimum qualification for everyone);
- Level 3: vocational training;
- Level 4: middle management, or specialist training.

A major reform in senior secondary education concerns the introduction of competence-based learning and training which implies a switch from thinking in terms of qualifications to thinking in terms of competences. Currently, a new qualification structure is being developed with competences for work, learning and citizenship as the central issues. In 2010, all vocational schools are supposed to have implemented competence based learning and training.

3.1.2 Reasons for Quality Assurance in Dutch (I)VET

Under the Adult and Vocational Education Act (WEB), the competent authority of a ROC is expected to set up a Quality Assurance system. Quality Assurance in each case should include a definition of the qualifications to be achieved (both with respect to the labour market, further education, social and cultural functioning, and life skills), and focus on the accessibility of education, the efficiency of learning pathways, and educational and vocational guidance. Moreover, external parties should be involved in quality assessments, and the findings of quality assessments should be published in a self-evaluation report, which also includes a policy plan. This report should be made accessible to the general public.

3.1.3 External and Internal Quality Assurance in Dutch (I)VET

The Education Inspectorate is in charge of the external inspection of the public educational system. Under the new Education Inspection Act (WOT), the School

Inspectorate can carry out different types of school inspections of which the two most frequent ones are annual inspections and periodic quality inspections:

- Annual inspections are limited in scope and are carried out at each institution every year. The aims are to inspect a school's performance, updating the school report card, discussing the development of the Quality Assurance system and the general functioning of the institution, and analysing potential risks that may threaten the school.
- Periodic quality inspections are carried out every three years in the vocational education sector. This is the most extensive type of inspection; the aim of it is to enable the School Inspectorate to produce a comprehensive report every three years.

The national Quality Centre for Examinations (Dutch acronym KCE) evaluates the quality of VET examinations designed and taken in schools for (I)VET. The role of the School Inspectorate is limited to supervising the KCE, and authorising examination institutions. Quality standards for examinations have been formulated and apply to all examination components, including practical training in the workplace, dual learning, or other learning approaches. Every year, KCE monitors the examinations held in schools and, if applicable, issues a certificate of approval.

Under the Adult and Vocational Education Act institutions must regularly supply information to the Ministry of Education: data on the numbers of students enrolling and leaving vocational education, or taking other courses. The data supplied must shed light on the performance of the institution, including success rates, the destinations of target-group students, and access to follow-up education.

(I)VET institutions are required to report every three years both on the design and on the functioning of their Quality Assurance system. With respect to the design of the system, the institution should report how systematically it takes care of Quality Assurance activities at all levels of the institution. In addition to that the institution is expected to show that the quality care system is functioning adequately at least with regard to four legal requirements: qualifications, accessibility, efficient learning pathways and guidance. For each of these requirements the aims of the institution should be reported, the results, the discrepancies between aims and results, and the quality improvement measures that have been, or that will be taken.

3.2 The Results of the Case Studies

3.2.1 Introduction

The case studies were carried out in five ROCs (Regional Training Centres), in each of them training courses for nurses can be taken in the BBL (block, or day-release system) mode, and in the BOL (regular vocational training) mode. The ROCs studied varied in size between just 2,000 students (1 ROC), about 10,000 students (2 ROCs), and 15,000 students (2 ROCs).

The Colleges studied were selected on the basis of information available from the School Inspectorate which had judged Quality Assurance within most Dutch ROCs and which, based on that, had labelled QA in these Colleges as 'sufficient' or 'insufficient'.

Although it was quite hard to obtain the cooperation from the ROCs for our research, we managed in the end to find two Colleges of which the QA activities had been judged as 'sufficient', and two in which QA was still 'unsatisfactory' according to the Inspectorate. Of one ROC no QA value judgement from the Inspectorate was available. This ROC was recommended by another ROC because of its well functioning Quality Assurance system.

At the time of the case studies, one of the ROCs already had implemented the concept of competence based learning and training fully. The other ROCs were in the process of carrying out projects to implement competence based learning, or had a more or less sceptical attitude towards this innovation.

In the ROCs included in this study, teachers work in interdisciplinary teaching teams which belong to a greater unit or department, e.g. to the Health unit.

The Inspectorate carried out a Periodic Quality inspection in four out of the five ROCs involved in this project. Two ROCs received the score 'sufficient' for their quality care system, both at ROC and at unit level. The Inspectorate judged the quality care system of the other two ROCs as unsatisfactory.

In 2005, in one ROC the 'Nursing' training course received a certificate of approval for its internal examinations from the KCE, the national Quality Centre for Examinations. In the other four ROCs the courses received a conditional certification which means that KCE is confident that in the next year the training course will be improved with respect to the quality of the examinations.

3.2.1.1 Data Collection

The data about the way the ROCs work on Quality Assurance were collected by means of interviews with staff (teachers, Quality Assurance coordinators, managers) and students in each of the ROCs.

3.2.1.2 QA Systems Used in the Case Study Schools

Various types and mixes of Quality Assurance Systems are in use in Dutch senior secondary vocational education. In a number of ROC institutions the *INK model* forms the basis for QA. The INK model is the Dutch version of the Excellence Model of the European Foundation for Quality Management (EFQM). The model is a non-prescriptive framework to encourage organisations both in the profit and non-profit sector to permanently improve the quality of their products and services. Two different versions of the model are available: one for companies and one for governmental, educational and health institutes. Quality areas included in the model refer to *enablers* (Leadership, Management of employees, Policy & Strategy, Management of Resources and Processes) and to *results* (People results, Results regarding customers and suppliers, Societal results, and results in terms of Performance).

To accomplish their goals many ROCs make use of the PDCA cycle developed by Deming which provides a framework for the improvement of a process, or a system. It can be used to guide the entire improvement project, or to develop specific projects once target improvement areas have been identified. The cycle consists of four phases: Planning, Do, Check, and Act. The PDCA cycle has been designed to be used as a dynamic model; the completion of one cycle flows into the start of the next.

The Balanced Scorecard (BSC) has been developed in the early 1990s by Robert Kaplan and David Norton. The BSC enables organisations to clarify their vision and strategy, and to translate these into action. It provides feedback on both the internal business processes and external outcomes in order to continuously improve strategic performance and results. The BSC looks at the organisation from four perspectives: (1) the learning and growth perspective, (2) the business process perspective, (3) the customer perspective, and (4) the financial perspective.

Some ROCs deliberately focus on the indicators the Inspectorate includes in its so-called school Supervision Framework for Vocational Education and Training which refer to the following categories:

A. Quality maintenance and improvement (subcategories 'Quality maintenance and improvement at unit level', 'Legal protection for students' and 'Exams');
B. Teaching and learning (subcategories 'Feasibility of the study program', 'Processes of teaching and learning', 'Practical training', 'Contact with students' and 'Guidance of students');
C. Results by the end of Vocational Education and Training.

3.2.2 Ranking the (I)VET Institutions

The basis for ranking the five institutions is our assessment of the degree to which QA in each of the five ROCs (from now on called Colleges) leads to available QA data which are being used for improving the quality of the functioning of the institution, which ideally leads to observable improvements of institutional functioning.

The two researchers each independently of each other have made a ranking of institutions which rankings were thereafter compared and discussed. This led to a ranking upon which both researchers agreed:

1. Middle College
2. South College
3. West College
4. East College
5. North College

Although it was not easy to make a ranking from 1 to 5 there is a clear distinction between the Middle, South, and West College on the one hand and the last two Colleges in the ranking, i.e. East College and North College on the other hand. Based

on our interviews we think that the first three colleges are most active in terms of collecting data and translating these into improvement activities. In these colleges as a result of QA problems have been observed and tackled, which in a number of cases has been successful. Several positive effects of attempting to improve the quality of the functioning of the Colleges are observed within (some of) these institutions, e.g. more concern about institutional quality, improved student performance, fewer drop outs, and more satisfied employers.

In the last two institutions some impact of QA can be observed; however, the utilisation of QA data proved to be very limited. Respondents did state that due to QA they have become aware of the importance of looking into quality; however, beyond some level of conceptual use, staff in these colleges are not yet in time with QA.

3.2.3 The Factors from the Theoretical Framework Enabling or Constraining Review in the (I)VET Institutions Studied

Block A: The Design Process

3.2.3.1 Who Designed the Quality Assurance Systems (QASs) and How?

All five ROCs developed their own QAS. Two of the three Colleges that were ranked as the three more active reviewers (Middle and West College) based their QAS on the INK Management model. South College, the third college, ranked as a more active reviewer, recently adopted the INK model. However, because of very limited experience with the INK model up to now, in the case study on the South College the focus was on the 'old' QA model which was developed according to the sequence: Problem statement, Goal setting and Action Planning.

In East College, the QAS is based on the Inspectorate framework, as a result of a negative evaluation of the school by the Dutch Inspectorate. North College does not use an (adapted) 'official' model; there QA focuses strongly on the implementation of the new philosophy of teaching and learning (competence based), and the quality of teaching staff. Moreover, internal audits (external members are also part of the audit team) play an important role in QA in North College.

In Middle and West College the complete INK model is used and known at the *central level* of the institution. At unit or team level teachers and managers deal with parts of the model. At these lower levels, respondents and staff involved in QA usually are not aware of, or do not know the INK model. In Middle College the INK Model is linked to the PDCA cycle; in West College the INK model has been supplemented by indicators from the Periodic Quality Inspection carried out by the Inspectorate of Education, and the quality standards of the Quality Centre for Examinations (KCE). In Middle College the INK Model is not linked to the indicators of the Inspectorate. This implies that additional evaluations are needed to meet Inspectorate requirements.

The design approach in two of the first three highest ranked ROCs can be characterised as the prototype model. A preliminary model (INK management model) then forms the basis for the QAS. A global outline of the design is constructed at the overall level of the institution. At the unit level and the team level specific model parts are tried out, evaluated with the stakeholders and adapted on the basis of the evaluation results. In West College, for example, initially the self-evaluations were very extensive. On the basis of evaluations with the stakeholders and users they are now more focused. The prototype design approach enables stakeholders to influence the decisions about the QAS, but their influence is limited within the context of a preliminary framework.

3.2.3.2 Design Goal: Improvement, Accountability or Certification

This factor does not seem to explain much of the variation between the three Colleges that were ranked as more active reviewers and the other two Colleges. In all ROCs improving the functioning of the team, the unit, and the ROC appeared to be the most important goal for designing the QAS.

North, Middle and West College work with management contracts. These contracts are made at team or at unit level and they cover the (improvement) targets to be achieved in the following period (often a school year). These targets are based on the one hand on the strategic policy plan and the educational plan of the ROC and, on the other hand, on the results of the evaluations that were carried out at the end of the preceding period within the team or the unit.

Accountability is also a design goal in some of the Colleges, be it to a lesser extent, and especially so during the starting phase of QA. In the Netherlands all schools (ROCs among them) are obliged to account publicly for their quality, both to the Inspectorate and to their stakeholders. In some of the Colleges, initially the QAS was mainly used for external accountability. However, in the course of time, and as the QAS further evolved, improving the organisation became the main QA goal.

	Factor
Enabling	Design process: prototype model Tailor-made QAS model based on existing management model and including Inspectorate and KCE standards
Constraining	

Block B: QA System Features

3.2.3.3 Quality Indicators

A QAS that covers all important quality aspects within a College seems to be a precondition for using the QA data in an instrumental, or conceptual way.

In four out of five Colleges (the first three ranked ROCs among them) the QAS provides information on many important aspects of school quality. Although some variation between the ROCs exists, the indicators included at team or unit level refer to the areas of institutional accessibility, intake and placement, curriculum and the organisation of instruction, support of teaching and learning processes, introduction to the labour market and practice, the feasibility of the study programme, examinations, guidance and coaching of students, practical training, staff and organisation, training and student achievement.

In North College, the College ranked fifth, QA mainly focuses on aspects of innovation, i.e. the educational philosophy, the content of education and training, professionalising teachers, the culture, the organisation and the systems. For steering purposes North College works with management contracts and plans for professionalising teachers. Data used for formulating and evaluating the goals in the management contract concern administrative data stored in central databases like finance data, and data on personnel. Managers at unit level are expected to account for results like student success rates, students' qualification levels, student progress, satisfaction of the vocational fields, student satisfaction, and the quality of teachers.

QAS procedures

3.2.3.4 Data Collection Methods

The ROCs do not differ much in their data collection methods. They all use a great variety of formal methods to collect their data. These include among others (*The ROCs using the rejective method are indicated within brackets*):

- The JOB-ODIN questionnaires developed by the Youth Organisation senior secondary Vocational Education (JOB). This national survey is administered every two years and measures student satisfaction. The survey enables benchmarking with other ROCs (*All ROCs with the exception of South College*).
- Satisfaction questionnaires for teachers and students based on a national database (called the 'ROC Mirror'). Each ROC can single out its own questions. The Mirror also supports the data processing and analysis *(East College)*.
- Self-developed staff and student satisfaction questionnaires (*all Colleges*).
- Self-developed questionnaires for monitoring student intake (*Middle College*).
- Self-developed questionnaires for school leavers (*Middle College*).
- Self-developed questionnaire for evaluating practical training *(West College).*
- Self-developed questionnaires to evaluate the examinations *(KCE satisfaction questionnaires, all Colleges, usually after every test/exam)*.
- Self-evaluations based on INK, PQI and KCE *(Middle College and West College).*
- Internal audits by staff from other departments (*North College, South College, Middle College, West College*).
- External audits (*North College*, *Middle College, West College*, *and South College*).

- Teacher appraisal and assessment *(North College).*
- Contracts with practical training institutions *(North College).*
- Management contracts *(North College, West College, Middle College).*
- Conferences with employers and the 'professional fields' *(North College)*.

More informal methods are:

- Student and staff debates (*Middle College*).
- Feedback and guidance groups of students (at course level, at training course level, e.g. on practical training (*all Colleges*).
- Teachers working together with students in practical training institutions *(North College)*.
- Discussions among teachers in meetings and conversations *(North College).*
- Complaints from students and others.

In three ROCs (including Middle College, and West College) QA activities are scheduled according to a 'cyclic approach': evaluations of various topics are spread over a longer period of time: e.g., a period of three years, i.e. the time interval between two Periodic Quality Inspections by the Inspectorate.

3.2.3.5 Respondents

The Colleges do not differ with respect to the groups of respondents included in the data collection. In the five Colleges all important groups of internal and external stakeholders (students, teachers and other staff, management, practical training institutions, employers, occupational fields etc.) are involved in the data collection.

3.2.3.6 Data Processing

With the exception of the JOB-ODIN questionnaire, which is processed by IOWO, an agency at the national level, the other questionnaires are processed within the Colleges themselves. Regarding data processing there is no important difference between the three ROCs characterised as more active reviewers, and the other two ROCs. The data are processed by either the QA coordinator, or the QA agency at central level, by the QA coordinator at unit level, or by a team member within a specific QA task.

In South College, QA data are processed by secretarial staff, who enter and analyse the data and who send the results to the department coordinator.

QA Platforms, composed of all staff coordinating QA at the level of a unit, school and/or ROC, exist in the three colleges most active in reviewing QA data (Middle College, South College and West College). In these QA Platforms consultation takes place on a regular basis.

3.2.3.7 Output

Information on how the output exactly looked was only obtained from Middle and West College, both colleges that were ranked as good reviewers. In these Colleges,

the data fed back provides information at college level and at sector level (sometimes also broken down into units) and includes, if possible, comparisons with other colleges/sectors and with previous years. Due to the management contracts that are used in these colleges, the data fed back also provide comparisons with absolute standards (e.g. 75% of the requirements for graduating students are covered by tests).

In West and Middle College the questionnaires are administered through the Internet, and due to 'automatic data processing' the output at the lowest (team) level is presented to all staff members almost immediately. The preparation of the comparisons with other colleges/sectors and with previous years takes some more time, and is usually presented first to team leaders and unit management.

3.2.3.8 Data Distribution and Discussion

In the ROCs that have QA platforms (the three ROCs ranked as the best reviewers) the data are first discussed within the QA Platform, and afterwards within the teams. Moreover, in two of these Colleges students are involved in drawing up improvement plans.

In West College the results are first fed back and discussed within the QA Platform. Next, they are forwarded to the team managers, who subsequently distribute and discuss the data within the team.

In Middle College, the results are fed back to the unit manager and the QA staff member within each team. The QA responsible passes the results on to the team members. The QA coordinator looks for possible differences between the team scores and the scores of the sector, and brings possible differences up to the unit manager and QA staff. Next to this, conferences at unit level are organised at unit sector, or at ROC level.

Student evaluations results are discussed with the students either in the feedback and guidance groups of students, or in student debates. Also in two Colleges (Middle College and West College) the improvement actions that are taken, or that will be taken on the basis of student evaluation results are discussed with the students.

3.2.3.9 Publication of Data

The Colleges hardly differ with respect to the publication of the results. Four ROCs use the schools' intranet for the publication of the results. In these ROCs each staff member is able to take notice of the results. In North College the results of the internal audits at unit level are discussed with the governing body. Improvement decisions are taken in the dialogue with the governing body.

3.2.3.10 Validity of the Information

To obtain an estimate of the validity of the information, respondents were asked to give an impression on how well the data cover school quality. With the exception of North College, the respondents in the other four Colleges (i.e. the three Colleges

ranked as the best reviewers and one other College) confirmed that the QAS information covers school quality well.

3.2.3.11 Clarity of the Information

The factor clarity explains little in the differences between the Colleges in terms of their review processes. In all five ROCs information is regarded as clear and easy to use. However, as some respondents of East College mentioned, it is not always easy to transform the information into improvement actions. This is especially the case due to the fact that topics cannot just be dealt with at the team level but also require attention at a higher level (e.g. for topics like competence based training, the quality of the sanitary, trajectory coaching).

3.2.3.12 Required Staff Effort

In general the effort required is considered great but necessary. QA coordinators are appointed in each ROC, usually at the higher (unit and school) levels, and for part of their working time as a QA coordinator. Moreover, in all ROCs QA forms part of the activities of a central service or agency (e.g. the central service 'Education and QA').

As a rule, within the teams, one or two staff members (the team leader or one or two teachers) have a QA task. In Middle College staff members at team level receive task hours for carrying out this task. Although the number of task hours is insufficient, they do underscore the importance of QA within the institution.

3.2.3.13 Goal of Using the QAS

The three Colleges most active in terms of QA (West, Middle and South College) report that QA has definitively proved its usefulness for improving the functioning of the organisation. In West College and Middle College teachers are aware of the goal of using the QAS; in South College not only the teachers but also students are aware of the goals. In South College the unit coordinator is of the opinion that teachers should be interested in QA as it is part of their job.

In North College, teachers are aware of the general innovation goals, but not of the goals of QA. In East College all staff know about the need to work on QA; however, not all of them work with the QAS.

3.2.3.14 Extent of Problem-Solving Support

In the ROCs support includes technical support (in case of technical problems, or data processing) and support concerning the QA content and procedures. The first type of support is usually provided by the central level, the second type mainly by the QA Platform, or by a QA coordinator at unit level. Support and the type of support prove to explain little of the differences between the Colleges in terms of their review processes.

	Factor
Enabling	QAS that covers all important aspects of quality Procedures QA: • Output is available almost immediately • Data distribution and discussion, including involvement of students in formulating improvement actions • Coordination of QA by QA Platforms Goal of using QAS: improving the organisation
Constraining	

Block C: The implementation process

3.2.3.15 User Training and Implementation Support

Overall, surprisingly little training has been given to school staff within the five colleges studied. In most colleges staff were not trained, or it was limited to one or a few meetings in which staff were informed about the general goals of QA. In West College teachers were trained for making high quality tests. Interestingly South College seemed to have been aware of the importance of user training as they train staff frequently for QA. The contents of these training courses relates to the need and importance of QA as well as to the preconditions for successful QA. As mentioned above this College was ranked as one of the successful reviewers.

3.2.3.16 Promotion of User Participation

The colleges hardly differ with respect to the degree to which teachers and students are encouraged to participate in the process of setting up and improving the system for QA within the school. In other words, it is usually at the central level of the College or the department where those decisions are being taken regarding QA which may have influenced the extent to which the various staff members feel owners of the QA system. This may have influenced QA in general, and more specifically the review process, in a negative way.

3.2.3.17 Monitoring Implementation Consistency and Effects

It seems that much can be improved regarding this aspect of the implementation process. Full monitoring within the whole College, from the implementation of the whole process of collecting QA data to using the data for improvement activities, is not observed in one of the Colleges. If monitoring takes place, it is often done at a central College level and/or department level, and it is restricted to part of the QA activities (like whether the questionnaires are filled out, and not which activities are taken based on QA activities).

West College is most active in terms of monitoring implementation as this is done at central College level, at unit level and at departmental level (where various committees are active).

3.2.3.18 Availability of Extra Innovation Resources

Resources for QA are usually available to one or a few general QA coordinators for a whole College (Middle College is the only College that also allocates task hours to the staff members with a QA task) which means that teachers and other staff have to fill out forms and do other activities with respect to QA without having extra time for it. They therefore experience QA often as an extra burden. Whether this is right is an interesting question. In West College QA work is considered important for the College and for teachers; and teachers should be aware that it is something important for the quality of their own work. They therefore are expected to be (and are) active in this area.

Below those implementation process characteristics are presented that have a constraining or an enabling effect.

	Implementation process factor
Enabling	Training and implementation support Monitoring implementation consistency and effects
Constraining	Promotion user participation Extra innovation resources

Block D: School Organisation Characteristics

3.2.3.19 Performance Level

It is not easy to draw conclusions about the degree to which the performance levels of the Colleges influence the review processes within the Colleges. First of all, in a number of cases the performance level is unknown to the respondents. This can be due to the fact that simply no performance information is available to them. In other cases only an overall judgement is available of the quality of the College (from the Inspectorate), which does not indicate much about the quality of the specific department studied.

The three best reviewing Colleges vary in their performance levels, from rank 1 to 3 as follows: unknown performance, high level of performance, performance just above average. Schools ranked as 4^{th} and 5^{th} in the review ranking respectively have a low performance level (judgement by the Dutch Inspectorate), and a high level of performance (this is their own perception based on various kinds of data).

3.2.3.20 Pressure to Improve

Overall this factor does not seem to explain much variation in the degree to which review processes have developed within the Colleges. There proves to be some

pressure to improve the quality of the department studied within some of the colleges; however the link with QA in those cases is not always strong. In East College this is however different: the College has received a negative evaluation from the Dutch Inspectorate and as a consequence of that has developed a QAS that is closely related to the indicators the Dutch Inspectorate uses. The impact of underperformance for working on QA is clear in this College.

3.2.3.21 Attitude Towards QA

The attitude towards QAS is quite high in those Colleges ranked as the three more active reviewers: Middle, South, and West College. In two of them about 70% or more of staff are considered to be motivated for QAS (in one College no information on the degree of staff motivation was obtained). In East College staff clearly is less motivated for QA according to the respondents: fewer than 50% are motivated, which percentage was attributed to the fact that some staff are sceptical about whether the collected data will be translated into actions. In North College no information on staff motivation for QA could be collected.

The last two factors within our framework, i.e. the extent to which the College is a *learning, innovation-enriched organisation,*and the degree to which it can be labelled as a *high reliability school*prove to explain few of the differences between the Colleges in terms of their review processes. The most important reason is that most staff in all the Colleges studied judge their organisation very positively: much cooperation between staff, a strong improvement-orientation, the organisation values improvement initiatives of staff much, reducing uneven performance of students as a central goal, intense performance evaluation. It may be that the way these factors have been measured resulted in the fact that respondents gave socially desirable responses.

Only in North College coordination across classrooms and between activities is considered to be very low.

	School organisation factors
Enabling	Attitude towards the innovation Pressure to improve
Constraining	

Block E: the Use of the QAS

As indicated above, a clear distinction was observed between the three ROCs ranked as the three best reviewing institutions and the other two ROCs. The former three are considerably more active in collecting and using QA data for school improvement (instrumental use). In these three institutions we see to varying degrees the discussion of QA data, diagnosis of observed problems, definition of improvement goals, and the monitoring of improvement actions.

In the two institutions ranked numbers as 4 and 5 QA has developed less. In these ROCs QA is not (yet) really something 'owned' by all staff and leading to diagnosis and institutional improvement.

However, regarding conceptual use of QA information all respondents are positive as they all observe that QA within their College has increased staff awareness and concern about the quality of the College. Some of the respondents also indicate that they have gained new insights into institutional strengths and weaknesses.

Block F: (Un)Intended Effects

The most active QA Colleges report important improvements in the quality of education, reduced student drop out, and improved student performance. The less active Colleges state that it is too early for real improvements as a result of QA.

In three of the five Colleges, staff (especially teachers) state that QA is important but requires much time next to their normal duties. In other words, QA is often seen as something extra that has to be done, something that is not part of their normal job.

No other negative effects were mentioned by the respondents.

Interestingly, the most active reviewing College pointed to the fact that sometimes too many improvement actions were planned for a specific period. Moreover, staff in the same College complained about the fact that the quality indicators used by the Inspectorate differed from the ones used by the College (the latter ones are preferred) which leads to much extra work.

3.3 Conclusions

As described in Section 3.1 Dutch (I)VET institutions legally (the WEB Act) have to work on QA in various ways, e.g. self-evaluation, external school inspections, publication of QA findings, assuring the quality of student examinations.

The research findings clearly showed relevant differences between the Colleges in terms of the extent to which QA reviews involve the discussion of collected QA data, diagnosis of problems, and the design and monitoring of improvement strategies. In some Colleges the instrumental ideal of collecting data for using these data for problem detection and problem solving works; whereas in other Colleges some data are collected for that goal but unfortunately the review stage there has not come to maturity (yet). However, in all Colleges staff were convinced that the work on QA had strengthened quality awareness among staff, which in the longer run may have an important impact too.

In line with the variation between Colleges regarding the extent of quality review activity, respondents are more or less positive about QA effects: the active Colleges report a variety of positive effects (problems solved, more quality concern among staff, better results, fewer student drop outs, more job satisfaction), and the less active colleges indicate that it is too early for QA effects. A general negative QA

effect that was mentioned is the amount of 'EXTRA' (the general feeling is not that QA is not an element of the regular job of College staff) time QA asks from staff.

The Table below summarises which factors seem to promote or block review processes in the five Colleges studied.

	Factors
Enabling	Design process: prototyping Tailor made QAS model QAS that covers all important aspects of quality Procedures QA: • Output is available almost immediately • Data distribution and discussion, including involvement of students in formulating improvement actions • Coordination of QA by QA Platforms Goal of using QAS: improving the organisation Training and implementation support Monitoring implementation consistency and effects Attitude towards the innovation Pressure to improve
Constraining	Promotion user participation Extra innovation resources

Block A

The study showed that in all five cases school staff had developed their own, tailor made Quality Assurance System. It looks like ROCs have a preference for a QAS that matches their context and preferences. In addition to that a prototyping approach in developing QASs seems to be the most effective: developing and testing prototypes until staff are satisfied about the QAS. The most active reviewers based their QAS on the INK model; the other 2 colleges matched the contents of their QAS with the Supervision framework used by the School inspectorate.

Block B

Regarding the characteristics of the QASs in the five Colleges, the data indicate that more intense review activities go together with QASs that cover institutional quality well. A QAS covering institutional quality more widely probably promotes perceived QAS credibility and as such encourages more intense QA and review.

All colleges use a wide variety of data collection methods implying that this characteristic does not explain review differences between the Colleges. Factors that do seem to go together with a more intense use of QA data in the Colleges are the spread of QA topics over periods, the use of QA Platforms within Colleges, 'automatic data processing' so that the output is available almost immediately and involving students in improvement decisions and activities.

The spread of QA topics reduces the QA burden on staff (teachers especially seem to experience QA as 'something extra' they have to do) and as such makes it more feasible to monitor and improve institutional quality.

The Colleges most active in reviewing QA data all have QA Platforms which coordinate the various QA activities. Consultation about QA in these Platforms takes place on a regular basis which may guarantee that QA is not something that is mainly done by one or a few QA coordinators occasionally. If attention for QA comes back in Platform meetings, continuity in working on QA is more probable and tasks can then also be coordinated and divided better among participants.

Student involvement in QA is also a correlate of active reviews in Colleges which raises the question whether 'student involvement' is an independent variable promoting more intense reviews, or an aspect of the dependent variable (active review). Strictly conceptually, we deal here with general involvement of students in QA activities on the one hand and more intense reviews (where student involvement probably also plays an important role) on the other.

Block C

It seems that there is room for improvement with respect to how QA is implemented in the Colleges. Training users for QA in general is limited in the Colleges, however the College with the most developed review process proves to be the exception here: frequent training courses in which attention is paid to the various aspects of QA (e.g. the goals and relevance of QA, required skills, and other preconditions). In most Colleges the complexity of QA having an impact on institutional improvement is not fully recognised. Improving awareness of this complexity may have a strong impact on the success of QA in Colleges.

Something similar probably applies to monitoring how much and how well QA has been implemented throughout a whole College, and whether actions planned on the basis of collected QA data indeed have been executed. Where such monitoring activities are being carried out it has a positive impact on QA and review; however in most Colleges monitoring can be done much better. Especially because the full implementation of QA in Colleges strengthens its continuity and effects.

Two other features of the implementation process have a constraining impact, whereas the general innovation literature stresses the importance of these factors: user participation and resources allocated for working on QA innovation. Both factors are important but at insufficient levels in the Colleges studied. This probably means that staff in many cases are not involved much in QA (in which cases QA probably mainly is 'owned' by one, or by a few QA coordinators as a result of which QA has little impact on the functioning of the Colleges); and even if they are willing to make QA work, they will experience insufficient time and other resources for QA. Extra innovation resources are usually restricted to a QA coordinator at the central College level, although some colleges also spent resources on other staff involved in QA.

Block D

In general the organisational characteristics of the Colleges do not explain variation in the utilisation of QA.

The performance level of the department was often not known, as a result of which it was impossible to analyse the relationship of this school characteristic with QA.

In most Colleges no strong pressure to improve was observed; however, one College had been evaluated negatively by the Inspectorate which definitely had encouraged QA activities in that College. In general staff have a positive attitude towards QA as an innovation; however, in one of the Colleges where QA has not developed very much yet, the innovation attitude is low as staff doubt that QA data will be translated into improvement initiatives. In other words, it seems that a positive QA attitude is important (of course it is impossible to distinguish between whether a positive attitude leads to better review, or that good review experiences promote a more positive innovation attitude).

The Colleges differ too little from each other with respect to the last two organisational aspects studied (the learning, innovation enriched organisation, and the high reliability school) to draw any conclusions on their influence on QA and review activities.

No relationship was found between a number of factors included in the theoretical framework for this study and the degree of review activity in the Colleges. This can be due to various reasons. One of them is that indeed no relationship between these factors and quality reviews exists. Another reason may be that such a relationship exists but was not found because of the characteristics of this study: a small number of cases (which does not allow for generalisations; in other words; it could be that the relationship will be found in five new case studies); inaccuracy in measuring variables from the theoretical framework (e.g. due to self-reports by school staff which may have led to socially desirable responses, for example about the qualities of respondents and Colleges).

Overall, it should not be forgotten that the case studies are a way of exploring the world of QA in IVET which ideally is complemented by larger scale research in which hypothetical relationships are tested statistically.

Chapter 4
Factors Influencing the Use of Quality Assurance Data in English (I)VET for the Health Care Sector

David Pepper

4.1 The English Context of Quality Assurance in (I)VET

4.1.1 Structure and Organisation of English (I)VET

In England, schooling is compulsory from age 5 to 16. In the final phase of compulsory schooling (14–16 years of age) pupils follow the National Curriculum, with core subjects including English, mathematics, science and Information and Communication Technology and a range of optional subjects. At age 16 most pupils take the General Certificate of Secondary Education (GCSE; ISCED Level 2) in a range of single subjects; a certificate is issued listing the grade achieved in each subject. Optional studies are mainly in general subjects but schools may also offer GCSEs in vocational subjects or other vocationally related qualifications. In conjunction with local Colleges of Further Education (see below) some schools offer pupils aged 14–16 a more strongly vocational alternative to GCSE through the Increased Flexibility Programme.

After completion of compulsory education in secondary schools, young people may choose to continue in school, move to a sixth-form college or a College of Further Education (FE College), enter government funded Work-Based Learning (WBL), usually in the form of an Apprenticeship, or enter employment with or without training. Normally, the upper secondary phase of education lasts two years, from age 16 to 18 or 19.

FE Colleges provide both initial and continuing VET, catering for both young people and adults. They are the main providers of IVET in England and are therefore given the fullest treatment in this description. Whilst some Colleges within the FE sector specialise in one subject area (e.g. Land-Based courses or Art & Design), most offer a very wide range of sector/subject areas, with a mixture of long and short courses, some of which may be tailored to the needs of individual businesses.

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At 16 years of age, students remaining in education may choose between general (academic) and vocational subjects or take a mixture of the two. The dominant academic qualifications are General Certificate of Education A levels (ISCED Level 3). A more 'applied' qualification, the Vocational Certificate of Education A level, is also available but much less common. Compared with schools, a wider choice of vocational subjects is available at sixth form colleges and a still wider and more specialist range at FE Colleges. Vocational courses for young people must lead to an accredited qualification from a recognised awarding body.

Apprenticeships, available in a range of occupational areas, follow the pattern set by the relevant Sector Skills Council. Completion of an Apprenticeship normally requires achievement of a relevant National Vocational Qualification (NVQ), a 'technical certificate' (providing the underpinning knowledge relevant to the occupation) and the 'key skills' of Communication, Application of Number and Information Technology.

Higher Education (HE) courses, normally commenced at age 18 or 19, are available in universities and also in FE colleges. In addition to academic degrees and diplomas, there is a wide range of vocational courses and qualifications, many designed in conjunction with the relevant regulatory and/or professional bodies and providing the entry for route to the relevant profession.

The specifics of the health and social care sector are as follows. The normal route to a nursing qualification is via a Nursing and Midwifery Council approved degree or Diploma of Higher Education in Nursing. Entry is at age 17.5 years or over, with a minimum of 5 GCSEs or approved equivalent (plus 2 or 3 A levels for the degree course). An alternative route for those aged 16–19 is via a two-year Nursing Cadet course, which provides a mixture of clinical placements and study towards a qualification, such as the NVQ Level 2 or 3 in Health and Social Care, which will satisfy the academic requirements for entry to a nursing diploma or degree course.

4.1.2 Reasons for Quality Assurance in English (I)VET

In England there is a strong focus on the responsiveness of public service providers to the needs of public service users. These users are increasingly thought of as 'customers' who should be able to influence or choose the service they receive. There is also a strong culture of accountability. External agencies audit provision in order to encourage best practice in publicly funded services. Furthermore, self-evaluation for improvement is also an important and well-established part of this culture.

This context is generally applicable to the public sector, including learners, parents and patients in health and education. In recent years both specific areas have benefited from additional funding but there have been shortfalls in some local National Health Service (NHS) trust budgets. These shortfalls have led to strong pressures to make efficiency savings, particularly through staff numbers. The pressures in education are of a different nature: to engage employers in learning and meet their needs, to widen participation amongst socio-economically disadvantaged

groups, and to meet the needs of minority ethnic groups and students with disabilities or learning difficulties.

In education and training, secondary schools, colleges and training providers compete for learners through the information provided in inspection reports, league tables and marketing materials. However, they often collaborate with one another in order to broaden their provision. To integrate classroom and workplace learning, collaboration extends to employers and in the case of health and social care education this often includes local NHS trusts. The England case studies that follow in this chapter illustrate several forms of this collaboration – as well as provision made by a single institution.

4.1.3 External and Internal Quality Assurance in English (I)VET

There are several sources of external Quality Assurance in England: inspection, funding, assessment, training, guidance and advice. Inspection is compulsory for any IVET institution in England which receives government funding. A single organisation is now responsible for the inspection of IVET below Higher Education level (the Office for Standards in Education), resulting in a systematic inspection programme which covers all institutions over a four-year period. Inspection reports are published and a more detailed version is provided to the institution.

The public funding of post-16 pre-HE IVET is managed by a single funding agency (the Learning and Skills Council). Course funding is tied to the provision of data on recruitment numbers, completion of the programme and achievement of the qualification. Part of the funding is dependent on actual completion and achievement levels in data supplied by the course provider. These data are shared with the inspectorates and contribute to their inspection reports.

Awarding bodies set and mark examinations and other assessments. They have an indirect effect on provision since high failure rates attract the attention of inspectors. They have more direct effects by training staff for assessment, preparing staff and learners for new qualifications and externally verifying internal assessments. Professional bodies have an important role in determining standards required to enter their profession and some act as awarding bodies. The system gives an explicit role to both internal and external elements of assessment and moderation.

Teachers and trainers are required to hold a teaching qualification and are expected to undergo continuing professional development. A number of agencies provide guidance, advice, research and consultancy on best practice to schools, colleges and training providers. Qualification requirements for VET teachers and trainers are new; general teaching qualification requirements are long standing.

Internal Quality Assurance through self-assessment and continuous improvement are amongst the qualities expected of institutions offering education or training. Schools and colleges are expected to provide an annual self-assessment report for the inspectorates. Evidence for this is drawn from learner retention and achievement figures and feedback from learner questionnaires, as well as from more informal

sources such as teachers' views. Institutions offering nurse education are required to undertake self-assessment in preparation for external inspection.

The external requirements for course information can contribute to internal processes for Quality Assurance. Data can be used for external accountability and internal management. Whilst satisfying external requirements, colleges and training providers can and do collect further data for Quality Assurance to ensure that they provide their learners with the support they need to fulfil their potential.

4.2 The Results of the Case Studies

4.2.1 Introduction to the Case Studies

4.2.1.1 The Characteristics of the Case Studies

Case studies on the Quality Assurance systems (QASs) of five pre-HE IVET health and social care courses were carried out in England in 2006. In four of the five case studies, the provision of classroom-based and workplace-based learning is made possible through collaboration between two or more institutions, such as a college and a health care provider. As a result, the case study research involved several more than five institutions. In fact, four NHS Trusts, three colleges and two health and social care companies acting as training providers were involved in the research. For the purposes of this chapter, they have been anonymised and are re-named as follows:

- South Sixth Form College with South NHS Trust (South)
- Central University with Central NHS Trust (Central)
- West Further Education College and care companies (West)
- North NHS Trust (North)
- East Further Education College and East NHS Trust (East).

Across the case studies, the main form of collaboration involves a college or university offering classroom-based learning and teaming up with a training provider in the form of an NHS trust offering a work placement (South, East, Central). West has a different form of collaboration since the learners on its course are employees at social care companies. Evidence from the case studies suggests that this collaboration across institutions presents an especially strong challenge to the development of a unified and integrated QAS. Only one case study involves a single institution. North organises training sessions on its premises and placements on its hospital wards.

In four case studies, the course on offer is a nursing cadet or Apprenticeship course designed to provide a route into pre-registration nursing courses for young people and adults who lack the normal academic entry requirements. South and North offer standard Apprenticeships comprising an NVQ in health and social care, Key Skills in communication, number and Information and Communication

Technology, and an industry standard Technical Certificate. Central and East have innovated their own forms of Apprenticeships but the content and assessment is somewhat similar to standard Apprenticeships. Central's course includes the NVQ element present in four of the case studies but now only at Level 2. The fifth case study, West, offered a more contained course designed to validate health and social care learning in the workplace through NVQ Level 2 and Level 3.

4.2.1.2 Case Study Selection

It proved far from straightforward to engage institutions in the case study research and a debt of gratitude is owed to the colleagues in the participating institutions for giving up their time to provide information about their QASs. These institutions, providing pre-HE health and social care courses, were identified through national inspectorate or Quality Assurance reports and college or health and social care networks. A spread of different structures of provision was sought and achieved, as the list of participating institutions and the description of their characteristics indicates.

4.2.1.3 Data Collection

Information was collected from the case studies between May and July 2006, depending on the availability of interviewees, using semi-structured interviews with staff and students based on detailed interview schedules. Staff were interviewed based on their role, which was defined for these purposes as 'managers' or 'teachers'. The students were taking health and social care courses at Level 2 or Level 3. The interviews were either undertaken face-to-face or by telephone depending on the preference of participants. All interviews were recorded, transcribed and then analysed. Additional contextual information about the case studies was drawn from freely available national inspectorate reports and more detailed information was extracted from copies of QA data collection instruments.

4.2.1.4 QASs in the Case Studies

The case study evidence confirmed expectations that significant differences between the institutions and their courses would be accompanied by significantly different systems of Quality Assurance. These differences are of course limited by the similarity of external QA requirements and national accountability measures. Thus many similarities in the QASs were also in evidence. The similarities and differences provide a good evidential basis to assess the factors involved in enabling or constraining QA.

Throughout the case studies, the QA mechanisms were designed by internal staff rather than outside companies, government or its agencies. In many cases the course manager or departmental manager made a major contribution or led the original design process. Between 2 and 6 years had passed since the implementation of the essential features of the QASs. The QASs of South, Central and East, pre-date the introduction of their health and social care courses but North's internal QA was

designed for that course alone and implemented at the same time and West's QAS was implemented more recently than the first offer of the course.

In all of the case studies, numerical data is collected for quality indicators relating to recruitment, completion and achievement. This data collection is universally regarded as both essential for external accountability, learner support and course improvement. This element of QA is seen as straightforward and access to administrative support for compiling the data is the norm and technical support in outputting and interpreting the data is sometimes available. Staff generally felt that these data were important for analysing the impact of the course, corroborating experiences or offering insights, and highlighting the need for change or confirming the direction of travel.

In all of the case study *institutions*, attitudinal data is collected for quality indicators relating to learner and employer satisfaction. However, West lacked this data relating to its health and social care NVQ *course*. In the four other case studies, satisfaction data is usually collected through evaluation forms/questionnaires but staff observation of learners and informal conversations with learners and employers often plays an important role. Learner satisfaction data collection occurs at the end of courses and frequently occurs at the end of each term or section of a placement, either through a form/questionnaire or submission of learner diaries. The case study QASs with such mid-point collections are in a better position to make changes quickly in response to learners' comments (South, North, East). Indeed, these changes may then benefit the self-same learners. Those with only end of course collection are reliant on proactive learner requests, staff observations or (to a more limited extent) course data such as retention and achievement data for early insights.

In some cases, notably Central, data for additional indicators is collected, such as quality of provision (Central: measured through external inspection, internal observation or learner evaluation forms), conformity to external assessment requirements (Central), value for money (Central: cost per successful learner), and parental satisfaction (South: questionnaire surveys). These additional indicators correlated with differences in the course and institutional contexts. The evidence from South and North suggests that quality indicators can strongly influence the way staff conceptualise 'quality' and focus their attention on securing desirable outcomes through focused improvement activities.

The case studies' QA data and reports are not published but are generally distributed to staff for information and discussion at meetings. However, one notable innovation was the intranet publication of QA data at West. Staff across the cases generally find the QA data easy to understand and the burden on teaching and management staff is minimised by an administrator who collates the data. Regular meetings between course staff are seen as an important means of reviewing the QA data and agreeing a course of action. At South, meetings to review QA data are timed to coincide with their data unit's distribution of the latest QA reports. In some of the case studies, the data contributes to regular, independent course reviews.

The staff interviewed for the case studies emphasised the role of the QASs in identifying problems. Identifying strengths was mentioned to a much lesser extent. It was felt that numerical data was important in these regards. The case studies

tend to use teachers' and trainers' direct experience of the course and attitudinal information, especially from learners, to interpret numerical course data. This can yield valuable insights about course weaknesses (and strengths). Attitudinal data is also being used separately, particularly to establish whether courses meet learners' expectations (though without controlling for original expectations) and to encourage learners' to think about possible improvements to the courses.

Each case study generally monitors the operation of its QAS by simply 'keeping it under review'. At North, this is an ad hoc process; staff can raise issues about the QAS when reviewing the QA data at staff meetings. At West there is no QAS review procedure but staff do consider this to be part of their QA role. At Central, the QAS is subject to informal, ongoing review. At East, senior college managers are responsible for keeping the QAS under review and the placement manager at the Trust monitors the QAS to ensure that its information is adequate and timely. South was the only case study where an institution, in this case the college, has an annual one-day review of the QAS.

4.2.2 Ranking of the Case Studies Based on the Success of the Review Stage

The basis for ranking the five case studies is an assessment of the degree to which the QASs used for each of the health and social care courses provides QA data that can lead to observable changes and improvements in the quality of provision. This ranking was a difficult process to undertake because of the many and varied strengths and weaknesses of the QASs and the different and sometimes difficult circumstances in which the courses are provided. Nonetheless, it was possible to evaluate the overall level of success of the review stage of each of the QASs. The following ranking and explanation is offered constructively and with the aim of identifying, in the next section, enabling and constraining factors for successful review. The most successful reviewer was therefore North, followed by Central, South, East and then West:

1. North
2. Central
3. South
4. East
5. West

In most instances, staff specified one or two problems that they had identified by means of their QASs and changes that they had made to their courses accordingly. The QASs at South and North have enabled staff to make recruitment to their courses more focused, leading to higher completion and achievement. At South, QA of the placement has led to changes to working hours to suit learners' needs and ensure that there is adequate supervision and support for them. QA has also led to

better access to learning resources, including nursing journals. The QASs at Central and North were unusual in tracking the progress of former cadets on the nursing course. As a result, North's course was found to provide a good preparation for the nursing course. At Central, their QA had identified discontinuity between the courses involving content repetition. As a result, cadets can now skip the first six months of the nursing course. Changes at West focused on enhancing assessment quality such as new guidelines for assessors and more efficient use of learners' files in internal verification processes.

Interviewees at Central and East reported several substantial improvements. East's QA of the cadet placement has ensured cadets gain: relevant and interesting experience (evidence from informal learner feedback), payment only once all requirements are fulfilled (evidence from weekly supervisor reports), a more accurate job description (evidence from cadet diaries), a medical simulation day (cadets' evaluation forms, cadet diaries, supervisor reports) and that their employers are fully engaged in the course (employer meetings). At Central, learners have benefited from improved continuity in progression (as discussed above) and more focus on numeracy (also informal former cadet feedback), changes to the teaching of numeracy (cadet feedback through committees), working on the wards sooner (course evaluation forms and other cadet feedback), an induction that involves existing or recent cadets (forms and other cadet feedback again), and fewer places on the course to ensure adequate support for each learner (supervisors' feedback to the managers reviewing the course).

It is possible to identify various strengths and weaknesses in the QASs in the case studies. It has already been noted that courses offered through collaboration between institutions have a major obstacle to overcome in creating a coherent, unified QAS. As a result they require especially sophisticated systems for QA. The classroom/placement courses offered by South and East present a substantial hurdle to the development of an integrated and cost effective QAS. To a lesser extent Central with its unified provision but multiple accountabilities and West with its employer-based learning also face these problems. Despite this problem, both Central and East had made several substantial changes to improve their provision, often predicated on learner feedback discussions. This was the very feedback and discussion that West's NVQs seemed to lack. However, Central's QA is fragmented and partially formal. East's two providers have two fundamentally separate systems of QA and the college's use of learner feedback and review mechanisms is, as yet, underdeveloped. Similarly, although South is unique in providing training for the QAS/QA review and has robust procedures for QA distribution/discussion and QAS review, parallel systems of QA are in operation for the classroom and workplace.

By contrast, QA of North's course is relatively straightforward thanks to provision and management by a single institution. Although North's QAS has not had the impact reported by Central and East's Trust and lacks a formal QAS review stage, it is the most complete QAS amongst the five case studies and is extensive, integrated and formalised. In addition to basic quantitative data about the course, the QAS makes efficient use of data from learner evaluation forms, lesson observations,

reflective diaries including training ratings, regular training visits, nurse supervisor reports, and internal independent reviews.

4.2.3 Factors from the Theoretical Framework Enabling or Constraining Review

This section uses the findings of the case studies to assess whether factors linked to the QAS appear to be enabling or constraining of QA review for improvement. The factors are provided by the theoretical framework but additional factors may be developed in response to the findings.

Block A: The Design Process

4.2.3.1 Who Designed the QAS and How?

All of the institutions involved in the case studies had an internally designed QAS. There was no substantial variation across the case studies in how this was undertaken. Managers in each of the case studies led the development of the QA. This enabled them to design a system reflecting their perceived internal needs and external requirements, both in terms of their institutions and courses. Staff at all levels have been involved in the process of designing the QAS. This staff input has contributed valuable ideas to the design, which has promoted support for the QA. This, in turn, and dependent on other factors, has sometimes led to a higher degree of QA utilisation. Since all of the QASs were internally designed, it is not possible to make a comparison with externally designed QASs here.

4.2.3.2 Design Goal: Improvement, Accountability or Certification

Each of the case studies reported the need for the design of the QAS to pursue both accountability and improvement goals. This factor explains some difference between the more and less active reviewers of QA. Those who emphasised the need for QA that extends beyond accountability requirements with the goal of improvement use QA information more intensively. One case study emphasised QA relating to the goal of external assessment (i.e. certification). In this case, QA was more narrowly focused on assessment procedures. However, staff at each of the case studies had sought to incorporate all internal needs and external requirements into the QAS. This was clearly intended to minimise the burden of QA and maximise QA utilisation.

	Factor
Enabling	Design process: staff input Design goal: improvement
Constraining	

Block B: Features of QAS

4.2.3.3 Quality Indicators

Quality indicators are in use in each of the case studies. They are more clearly articulated in case studies where QA information is more fully utilised. Across the case studies, these indicators influence what staff understand by 'quality' in terms of their provision for learners. At the North case study, the most intensive QA reviewer, a threshold for success is agreed for each quality indicator in order to provide staff with a concrete aim for each aspect of quality.

All of the case studies have quality indicators based on numerical data relating to recruitment, retention and achievement. In each case study, these indicate possible strengths and weaknesses in the provision. Higher degrees of QA utilisation were strongly linked to the use of additional quality indicators based on attitudinal data relating to the experiences of staff, learners and employers. These help staff to understand the underlying reasons for the strengths and weaknesses of their provision.

4.2.3.4 QAS Procedures

The case studies all collect numerical data on recruitment, retention and completion or achievement. The more intensive reviewers of QA collect attitudinal data relating to staff, learner and employer experiences of their provision. In particular, the views of learners and their course staff, whether work-based or classroom-based, were often the driving force behind changes to courses and consequent improvements. Although either informal or formal feedback from staff and learners has precipitated changes, the more intensive reviewers provide formal QA mechanisms for stakeholders to express their views.

Some of the case studies have access to QA data that permit mid-point reviews of their provision. These enable staff to respond to issues as they emerge and are an important feature of a QAS that is responsive to learners' needs. And of course reviews are also important as they permit a full review of each cycle of provision. The use of mid- and end-point data is clearly linked to QA review for improvement.

4.2.3.5 Data Processing

Across the case studies, teaching and managerial staff have access to administrative support from designated staff for the collation of information produced by their QA processes. Since this support was present in the cases both of more and less successful reviewers, it is not possible to use the case study evidence to determine whether this contributes to successful QA.

4.2.3.6 Output

At some of the case studies there are designated staff who output the QA data. Both South and West have a dedicated data unit that outputs and reports on QA

information. The availability of this facility is likely to be linked to the fact that these are the only two case studies where outputs include pie charts, graphs and the like. However, since these two case studies differed in the extent of their review process it is not clear that this is an important feature of successful QA review.

4.2.3.7 Data Distribution and Discussion

Regular discussions of QA data amongst staff are an important part of data utilisation, both in terms of interpreting evidence and agreeing improvement activities. Evidence from the case studies suggests that these discussions are most effective when regularly scheduled and timed to coincide with the distribution of the latest QA data. This is reliant on resourcing to ensure that the collation, output, interpretation and distribution of QA data is regular and timely.

4.2.3.8 Publication of Data

None of the case studies makes QA data or reports publicly available (though the funding and inspection agencies may require access to them). Instead the data are generally only distributed to staff for information and discussion at meetings. This variable was therefore not linked to the degree of success in reviewing QA information.

4.2.3.9 Validity of the Information

Some of the case studies emphasised the need for valid QA information and the appropriate use of such information. However, there was little evidence of particular mechanisms designed to ensure validity, although one case study has a ‘head of quality’ who advises on data collection and interpretation. Overall, this did not seem related to the degree of QA utilisation in the case studies.

4.2.3.10 Clarity of the Information

The staff at all of the case studies reported that their QASs are easy to use and said that the information they provide is clear and easy to understand. The clarity of the QA information therefore does not seem to explain the varying degrees of QA review across the case studies.

4.2.3.11 Required Staff Effort

Regardless of the extent of QA review, staff from the case studies generally reported that QA required a lot or quite a lot of time and effort from them. However, the more successful reviewers expressed the view that a high time commitment for QA is acceptable because it is important for the realisation of the aims of their course. Staff at the most successful reviewer welcomed the high burden of QA because they saw it as closely linked to the success of their course, which was clearly important

to them. Across the case studies, staff often reported that their QAS required more time and effort when they were first implementing the system than for its subsequent usage.

4.2.3.12 Respondents

To some extent, staff and learners are respondents providing information for QA in each of the case studies. However, the case studies with higher levels of QA review fully involve staff and learners in QA data collection. They have formal mechanisms for collecting information from these respondents but also make use of informal information on an ad hoc basis. South, the least intensive reviewer, did not seem to have a formal method of collecting feedback from learners on the course in question. By contrast, North, the most intensive reviewer, gathered information from learners through several methods. Some of the case studies also ask employers or parents to be respondents in their QA but this was not obviously linked to more QA review.

4.2.3.13 Goal of Using the QAS

It was reported that all course staff at each of the case studies understand the goals of their QAS. However, it was not clear that all respondents had the means to reliably report this information. Learners at the most successful reviewers appeared to be aware of not just their role as respondents but also, to some extent, the purposes of the QA. This seems to derive from their more active role in the QA.

4.2.3.14 Extent of the Problem Solving Support

The extent of problem solving support did not seem linked to differences in the degree of review across the case studies. At South and West, this support is provided by the same units that collate and output the QA data. At West, there is also a head of quality who can provide support for QA review and linked improvement activities. Staff at the case studies sometimes felt that their QA is straightforward and does not require this kind of support.

	Factor
Enabling	Quality indicators: clearly articulated; numerical and attitudinal. QAS procedures: Numerical and attitudinal data collection Mid- and end-point reviews. QA discussion and distribution: regular and timely. Respondents: staff and learners. Goal of using the QAS: understood by learners as well as staff.
Constraining	

Block C: Implementation Process

4.2.3.15 User Training and Implementation Support

In almost all of the case studies, the respondents did not see a need for a specific programme of training in QA or in the use of the QAS. Indeed, only the South case study provides its staff with such training. Although staff said they found this training beneficial, there is insufficient evidence to determine whether this training enabled a higher degree of QA review.

4.2.3.16 Promotion of User Participation

The case studies did not appear to differ a great deal in the extent to which they involve their staff in QA. They did, however, differ in the degree of involvement of learners. There seemed to be a strong positive relationship between learner participation in the QAS, both formally and informally, and successful review for improvement of the courses.

4.2.3.17 Monitoring Implementation Consistency and Effects

Staff at the case studies generally monitor the implementation of their QAS on an ad hoc basis. However, the South case study also undertakes reviews of its operation at specific points in time. There did not, however, appear to be any sense in the case studies of a need to review existing QA requirements when a new course is introduced. Overall, the evidence from the case studies does not indicate the ways in which the factor may enable or constrain QA review.

4.2.3.18 Availability of Extra Innovation Resources

Extra innovation resources were not available in any of the case studies. However, an additional level of resourcing is clearly required for courses that are delivered on different sites and with the involvement of different institutions and their staff. In such cases, an innovative system of QA is needed and this must be backed with extra resources. Indeed, this view was supported by views of staff at the South case study.

	Factor
Enabling	Promotion of user participation: learners Extra innovation resources
Constraining	

Block D: Organisational Features

4.2.3.19 Performance Level

The performance level of the institutions did not seem to explain the variation in the degree of QA review across the case studies. The most intensive reviewer reported above average performance for their course, the second most intensive reviewer did not provide a response but its learners appeared to enjoy good outcomes, the more moderate reviewer reported a high level of performance, and the less successful reviewers reported good or above average performance.

4.2.3.20 Pressure to Improve

The case studies are sometimes responsible to different external inspection and funding agencies but were nonetheless operating in similar contexts of external accountability and competition for recruiting learners. However, the pressure to improve seems to be more related to their intrinsic desire to improve their programmes of learning for the benefit of their learners and, in due course, those with whom they would be working.

4.2.3.21 Attitude Towards QA

Staff at the case studies were generally considered to be well motivated for use of the QAS. This reported level of motivation, perceived or actual, therefore does not differentiate the more and less intensive reviewers. However, the source of their motivation may explain some of the difference in the degree of review. The most intensive reviewers, North and Central, strongly emphasised their commitment to producing well-trained employees (in these cases, nurses) through their programmes of learning. Their QASs were seen as an important means to this end. To some extent, staff at South and East also emphasised this but other factors are likely to explain their lesser extent of QA review. Overall then, the evidence suggests that support for courses can translate into motivation for QA. Indeed, this support can motivate staff for higher levels of effort and burden relating to QA, as in the Central case study.

4.2.3.22 Learning, Innovation-Enriched Organisation

Some staff were unable to comment but, when they could, they tended to say that their organisation had ‘very much’: staff collaboration, an orientation towards improvement, and values/rewards staff improvement initiatives. The exceptions were South and East where such values/rewards were only present to ‘a fair degree’. There was no apparent link to the degree of review.

4.2.3.23 High Reliability Organisation

Again, some staff were unable to comment but when they could they tended to report that their organisation had ‘very much’: coordination of activities, a central goal of

reducing uneven performance between learners, coordination across classrooms and activities, and intensive evaluation of performance. Here the exceptions came only from the East case study, where coordination across classrooms and activities and intensive evaluation of performance were respectively categorised as 'much' and to 'a fair degree'. No clear pattern of linkage between these factors and the degree of review is observable.

4.2.3.24 Organisation of Provision

The evidence from the case studies strongly suggests a need for an additional factor relating to the organisation of provision. Specifically, in the case of the England case studies, it is the frequent need for more than one organisation to be involved in the provision of classroom-based learning on the one hand and work-based learning on the other. The presence of multiple course providers, sometimes resulting in multiple external accountabilities, makes for a more complex challenge in developing a coherent system of QA that covers all aspects of course quality. This is clearly the case in Central, South, East and West. Only in North where, unusually, one institution made all of the provision, is this not an issue. It seems no coincidence that this case study also provided the best example of intensive QA review. The other case studies need much more sophisticated processes than this for the design, implementation, usage and review supported by additional resources – particularly staff time. Indeed, this need is well evidenced by the intensive QA at Central and the manager's concern about the high burden of their QA (and indeed her acceptance of this reality).

	Factor
Enabling	Pressure to improve: intrinsic Attitude to QA: high motivation linked to learner success
Constraining	Organisation of provision: multiple providers

Block E: Use of QAS

4.2.3.25 Length of QAS Use

All of the case studies have had systems of QA in place for a period of years. Specifically, three years in the case of West and two years in the case of East, both of which seem to be less active reviewers. The moderate reviewer, South, had had its QAS in place for four years. Central and North, the most active reviewers, had essentially had their systems in place for six years and four years, respectively. However, each of the five courses selected for the purposes of the case studies had not necessarily been offered for quite so long. Since West's course was just completing its first year of offer, their QAS was in fact very new. Similarly, South's course had only been available for two years, so the QAS has effectively only been in operation for two years. By contrast, the courses offered by North and Central had been available

for several years and their QASs had been introduced at the same time as them. The length of time of actual operation therefore seems to affect the degree of QA review for improvement. Although West had also offered their course for several years and had implemented their QAS simultaneously, the design features of the QAS explain its lower degree of QA review.

4.2.3.26 Conceptual and Instrumental Use

Staff were generally aware of the conceptual use of QA and the benefits it could result in for their course, their learners and the people they would go on to work with. There was therefore generalised support for systems of QA. The instrumental use of the QASs has already been detailed in the ranking of case studies provided above, with staff at some case studies able to show the potential for changes or to detail more changes resulting from the review of QA information than others.

Block F: (Un)intended Effects

4.2.3.27 Intended Effects

Staff frequently reported that there have been improvements to teaching and learning; learner retention, completion and achievement; employability and employer satisfaction; course organisation; and, the quality of assessment. However, not all case studies were able to detail the specifics of these changes or describe how QA had led to improvements.

4.2.3.28 Unintended Effects

Rather than saying that, as a result of their QA, they were more or less concerned about quality improvement, staff generally preferred to make positive statements about QA and its potential or actual impact on their courses and institutions. They emphasised greater awareness of strengths and weaknesses, and consequent changes and improvements. In fact, they were unable to point to any substantial unintended effects, whether positive or negative in nature. Indeed, although one teacher thought that QA might sometimes be used as an instrument of control and emphasised the need for contextual information during QA review, she and others generally felt that QA had empowered staff in their everyday work.

4.3 Conclusions

This chapter began by describing the structure, organisation and QA of education and training in England, focusing in particular on (I)VET. This provided important contextual information for the case studies undertaken for this chapter. It showed how the various institutions involved in each of the case studies operate within a culture of accountability enforced through external QA and an expectation of

internal QA. Each of the five case studies focused on the Quality Assurance of a single health and social care course. Differences between the institutions and their courses are accompanied by some significant differences in their systems of Quality Assurance. These differences are of course limited by their operation within the same national context and provided a good basis for assessing the factors that can enable or constrain QA review for improvement.

The findings of the case studies linked differences in their QASs to the degree of QA review in each of the case studies. The table below summarises which factors seem to enable or constrain QA review in the five case studies. Several factors drawn from the theoretical framework were identified as enabling QA review. Only one factor was identified as constraining QA review (organisation of provision). Rather than being taken from the theoretical framework, this factor was developed in response to the findings of the case studies. Although this is the only constraining factor shown here, the absence of any of the enabling factors from a QAS could also be seen as a constraining factor. For example, a lack of staff input into the design process could constrain QA review.

	Factor
Enabling	Design process: staff input Design goal: improvement
	Quality indicators: clearly articulated; numerical and attitudinal. QAS procedures: Numerical and attitudinal data collection Mid- and end-point reviews. QA discussion and distribution: regular and timely. Respondents: staff and learners. Goal of using the QAS: understood by learners as well as staff.
	Promotion of user participation: learners Extra innovation resources
	Pressure to improve: internal Attitude to QA: high motivation linked to learner success
Constraining	Organisation of provision: multiple providers

Block A: The Design Process

The case studies showed that each of the QASs was internally designed with the leadership of managers and the input of staff at all levels. This helped them to develop QA processes that have the support of staff and that reflect their perceived internal needs and external requirements. However, it was the design goal that appeared to explain more variation in the extent of QA review between the case studies. Indeed, those who emphasised QA for improvement rather than accountability alone are more active reviewers. It seems likely that their emphasis on improvement

led them to include QA features in their design that provide a fuller coverage of institutional quality.

Block B: Features of QAS

The results of the case studies show that there are several differences in the features of each of the five QASs. This is in contrast to the design process and implementation process, which were quite similar. The differences in the features are significant; they are likely to explain much of the difference between the least and most active reviewers of QA. The differences show that several particular QAS features can help to enable a high level of coverage of institutional and course quality.

The collection of both numerical and attitudinal information to measure quality against a clearly articulated set of quality indicators enables a higher degree of QA review. Furthermore, the use of agreed thresholds of success for each quality indicator may also contribute to more focused QA review. The views of staff and the feedback of learners are clearly important drivers of QA review for improvement. Mid-point data collection, formal or informal but numerical and attitudinal, is a prerequisite for programmes of learning that are responsive to learners' needs. Helping not only staff, but also learners, to understand the goals of the QAS helps institutions to cover all aspects of quality. Regular distribution and discussion of QA data, timed to coincide with one another, is important for the full utilisation of this data.

Block C: Implementation Process

In the absence of substantial differences in the implementation process of the case studies, there was no observed pattern of effect for several of the factors in this block. Only one case study offers QA training or has scheduled reviews of the implementation of its QAS, in both cases South. These may be linked to more intensive review but there was insufficient evidence across the case studies for this factor. However, the evidence did link a high level of learner involvement in QA, additional to a high level of staff involvement, to intensive QA review. The case study evidence also suggests that institutions providing courses in collaboration with other institutions need access to extra innovation resources if they are to implement a unified and coherent system that covers all aspects of quality.

Block D: Organisational Features

Although there were substantial organisational differences between the case studies, there were fine differences according to the aspects of organisation referred to by the theoretical framework of factors. The performance levels of the courses are not markedly different, they are each under similar pressure to improve, and the staff generally considered themselves to be well-motivated for QA. However, their intrinsic desire to improve their courses for their learners and their motivation to give their learners an excellent preparation for their future role in the workplace may explain some difference in the degree of QA review. The evidence from the

case studies indicates the need for an additional factor in this block relating to the organisation of provision. Specifically, in several of the case studies, provision is organised by more than one organisation. This may impede QA but the case study evidence gives cause for optimism, showing that this structural constraint can be surmounted through the resourcing of more sophisticated systems of QA.

4.3.1 Limitations and Further Research

There was no observable relationship between some of the factors in each of the blocks and the degree of QA review activity in the case studies. It may be either that there is in fact no such relationship in the selected case studies or that it was simply not possible to observe this relationship by means of the research method and instruments. A degree of unreliability may have arisen from the reliance on staff and learner perceptions and the framing of the questions may have had a bearing on this. Furthermore, it was not possible to observe interactions between the factors and the effect this may have on the degree of QA review. Further research could therefore build on these case studies by taking a different approach to the evidence gathering and by using a larger sample of (I)VET providers.

Chapter 5
Factors Influencing the Use of Quality Assurance Data in Danish VET for the Health Care Sector

Jørgen Ole Larsen and Ole Dibbern Andersen

5.1 The Danish Context of Quality Assurance in VET

5.1.1 Structure and Organization of Danish (I)VET

The terms Vocational Education and Training (VET), initial VET (IVET), and continuing VET (CVET) are often used in different ways in various EU member states. In this section, the term VET is used to describe the system and the programmes which provide recognised vocational qualifications within specific trades and professions.

The Danish VET system is part of the overall youth education system, and aims to develop the general, personal and vocational skills of young people. The overall objectives of VET are laid down in the Act on Vocational Education and Training. According to these, the aim of the programme is not only to provide trainees with vocational qualifications, which are formally recognised and in demand by the labour market but also to provide them with the general and personal qualifications which broaden the horizons of trainees to encourage lifelong learning and active citizenship.

The system is based on three main principles:

1. The dual training principle.
2. The principle of social partner involvement in training councils and boards.
3. The principle of lifelong learning.

The VET programmes are divided into two parts: a basic course which is broad in its scope, and a main course in which the trainee specialises in a craft or trade. There are seven basic courses: building and construction, crafts and engineering trades, mechanical engineering, transport and logistics, service industries, technology and communication, food production and catering and commerce, clerical education and finance.

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5.1.1.1 Historical Background of Quality Assurance Exercises

In Denmark, there has never been a single, nationwide, quality approach but there are common principles and measures at system level. The concept of quality is both manifold and dynamic. The assessment of what may be labelled as "good quality" is linked both to general political objectives, which are constantly changing, and more specifically to the nature and aims of the individual education programmes. This is, also, subject to change over time and in response to changes in demands from society. Finally, the perception of good quality is dependent on available resources.

The focus on quality has been high on the Danish political agenda over the last ten years. This applies to both the central and the decentralised levels. It is, in this respect, characteristic of the Danish system that the quality concept has not been classified by general definitions but rather encircled by indicators and approaches to maintaining and developing quality.

Hence, the modern concept of quality includes both the process and the outcome. Quality, in process terms, depends in the narrowest sense on the specific targets for education, while the broader concept of quality also embraces the outcome of this process including the fulfilment of the general objectives of education.

Although it may not be possible or desirable to identify and approve one general concept of quality, there is a need to identify good quality in individual learning and education contexts. The daily operations assessments of the education processes are conducted on an ongoing basis, and reviews of the outcomes are based on a quality concept outlined locally by the relevant stakeholders.

Key factors in the Danish perception of quality in the educational system:

- Quality of the general and pedagogical management.
- Pedagogical and didactical approach and the collaboration between teachers and students.
- Inputs – resources – competences – standard of premises – facilities.
- The professional and social environment of the institution. This is fundamental, the source of and prerequisite for quality maintenance and development.

Hence, the whole issue of measurable impact caused by various quality interventions is complicated. Quality is closely linked to a specific professional and political context. General causal relations from which quality can be predicted have never been documented. The educational system is not a machine which may be unequivocally regulated and supplied with inputs, which in specific situations will lead with certainty to specified outcomes with predicted effects. Clearly there is a correlation, but not necessarily proportionality, between inputs and outputs, nor is there a general and fixed predictability of the effect of a specific effort/act.

The Danish Ministry of Education has defined nine common principles/measures concerning policy on quality issues:

1. The involvement of stakeholders.
2. Common national guidelines.
3. Output monitoring.

4. Quality rules.
5. Ministerial approval, monitoring and inspections.
6. Testing and examination.
7. Transparency and openness.
8. Evaluations by the Danish Evaluation Institute.
9. International co-operation and surveys.

5.1.1.2 Decentralised Quality Assurance and Maintenance

In recent years mandatory demands have been introduced by requesting the institutions to work systematically with Quality Assurance and development by making use of internal Quality Assurance (QA) systems. According to this approach the institutions are supposed to implement the educational objectives and targets. It is a fundamental principle that the QA activities are based on self-evaluation.

The fundamental transparency within the concept of self-evaluation implies that the institutions are expected to define and translate the concept independently. The actual process of defining the concept in this way constitutes a necessary and important prerequisite for conducting self-evaluation in a meaningful context.

The degrees of freedom provide the schools with good opportunities to implement some procedures, which suit the overall QA of the institution and match the experiences gained by the school in relation to common reflections on practice. However, the individual school must create a link between objectives, procedures and outcomes in the self-evaluation process. Each institution must decide on a number of questions before they embark on a self evaluation procedure:

– When is the self-evaluation to take place?
– Who is going to conduct the self-evaluation?
– Which focal points shall be included in the self-evaluation?
– Which approach shall be applied?
– How are the outcomes of the self-evaluation to be utilised?

5.1.2 The Extent of Central Control on Quality Indicators

Although decentralisation and self-governance is the leading principle within Quality Assurance in Denmark, some general features related to the quality concept are defined and monitored by the government, and more specifically, by the Ministry of Education.

5.1.2.1 The Examination Regulations

The tendency has been towards more harmonisation and transparency between the different educational areas. The leading principle is that the individual institution is responsible for conducting the examination, and the Ministry of Education, in securing the national standard within the big examination areas, determines which subjects should be tested and nominates the assessors.

5.1.2.2 The Assessor Institution

The prime reasons for having an assessor institution are to secure a homogeneous assessment of examination performance and to exploit the opportunity for the central level to provide feedback on the individual course and institution. The feedback may be utilised in connection with adjustments to the education and with the Ministry's supervision of the institutions.

5.1.2.3 Mandatory Requirements for Teacher Qualifications

Determination of teacher qualification requirements, in general, ensures that the course is carried out on the correct professional and pedagogical level. The mandatory qualification requirements differ according to the individual course and in compliance with the principle that the professional level of the teacher should match the course level.

5.1.2.4 Mandatory QA Requirements for VET Institutions

The Danish decentralised concept, previously highlighted, is based on the principle that QA within a school has been built upon a systematised approach or a certain concept. The individual institution must decide if they want to develop their own systematic approach, or to choose a standard concept, e.g. the Excellence model. The schools may choose and prioritise, to a certain extent, which focus areas to include in the QA. The Ministry of Education has outlined in the mandatory regulations that the quality system of schools must, as a minimum, document the following areas:

1. The provision of education and subjects.
2. The vision/mission/objectives for the provider.
3. Public access to the average examination marks of the students.
4. Evaluation of the education delivered by the institution.
5. Environmental surveys.

5.1.2.5 Governmental Quality/Evaluation Institutes

In line with the highly decentralised system, approach and tradition there is no governmental quality/evaluation institute in Denmark. The Danish Evaluation Institute (EVA) could be seen as having a semi-official status in the Danish education system. EVA is an independent institution established in 1999 by an act of Parliament under the auspices of the Danish Ministry of Education. EVA's primary task is to initiate and conduct Quality Assurance of education at all levels – from primary school and youth education to higher education, adult and post-graduate education. EVA's mandate covers all public educational establishments and private institutions in receipt of state subsidies.

5.2 The Results of the Case Studies

5.2.1 Introduction

The focus of the REVIMP project was on Quality Assurance in providers of initial VET for the health care sector. However, the majority of health care educators in Denmark are outside the VET area, e.g. the nurse and laboratory technician courses are part of the higher education system. For that reason nurse training colleges were not included in the Danish project as was the case in the other five partner countries.

Consequently it was decided to select institutions working within the health care area. Some problems were faced identifying institutions willing to participate in the research, but finally four institutions were found. Two of the four institutions, in this report labelled C and D, are schools educating health care assistants. School C is a school for dental clinic assistants and school D a college of nutrition and health. Following the commencement of this project these institutions were included in the Governmental VET system and therefore are included in the target group for the REVIMP project. Of the two other institutions, labelled A and B, one was from the bachelor degree level and one from the VET system.

5.2.1.1 Data Collection

The standard (pre-defined) questionnaires were sent out in advance in order to facilitate the preparation of the management, teachers and students. In all four interviews it was difficult to apply the forms in the strict sense because the institutions studied did not have a formal Quality Assurance system (which is assumed in the questionnaire). Consequently it was decided to use the questionnaire as the framework and point of departure for discussion on how the school perceived and worked with quality and also how they attempted to improve the quality of their deliveries.

5.2.1.2 QA Systems Used in the Case Study Schools

Various types and combinations of QA systems are applied in the Danish VET schools. The majority of VET institutions (70%) have developed their own systems by combining different approaches. Only a minority of the schools (18%) has developed its own systems independently without input from standard systems. Forty-two percent of the schools which have decided to base their systems on standardised systems have chosen to use EFQM, or EFQM related models as a point of departure for their QA activities, while relatively few schools (5%) make use of ISO, or other certification models.[1]

The general approach used by institutions fully recognises that their QA must comply with minimum requirements, as outlined in the description of the Danish Context of QA in VET. This approach to QA also means that the schools have the

[1] According to a survey conducted by EVA, the Danish Evaluation Institute.

opportunity to establish a QA system which takes into account their own experiences and demands. This was fully documented in the four interviews and is seen as important because the VET sector holds various numbers of schools with different bases for QA activities.

Institution A used a formal system, KVIK, which is a version of the European "Common Assessment Framework" tool. KVIK is a model for self-evaluation and contains nine themes, five intervention areas and four themes focusing on the performance of the institutions. On a yearly basis Institution A makes use of specific elements of the KVIK system, based on the areas prioritised for each academic year. *Institution B did not* use a formal/external system but is moving towards one through a high degree of formalisation of procedures for data collection. *Institutions C and D* did not use formal systems, but were working in an ad hoc manner.

All four institutions applied the general QA requirements as mentioned above. These cover the following five indicators:

1. *The provision of education and subjects.* This is an in-depth description of the whole course and the subjects included and does not relate directly to quality systems.
2. *Vision/mission/values.* The VET provider shall publish its broad development-oriented goals for the institution's management and staff: such as the principles of openness, respect, quality (on a broad scale), pedagogical foundation.
3. *Public access to examination marks.* VET providers shall publish the average marks for the whole course and the individual subjects. This can of course be seen as a benchmarking instrument.
4. *Evaluation of the training delivered by the institution*. Providers shall publish student and employers' evaluations of the whole institution, individual subjects and specific courses.
5. *Environmental surveys*. Providers shall publish surveys on student perceptions of environmental issues. Topics of user satisfaction measurement are: general perception of institutional performance, physical and esthetical environment, teacher competences etc.

5.2.2 Ranking of VET Institutions

The four institutions were ranked based on the assessments conducted regarding the degree to which QA activities had been implemented and formalised in each of the case studies. Hence the ranking can by no means be seen as a manifestation of which institution has the highest performance score in its deliveries.

1. Institution A
2. Institution B
3. Institution C and D

Institution A represented a school with a high degree of formalised QAS activities and a systematic approach to data collection, reviews and the formation of strategies for change. This appeared to promote a high degree of consciousness of QAS and a commitment to improved performance although it is not clear whether all was realised as planned.

Institution B represented a school with a certain degree of formalisation of QA-procedures and with a systematic approach to data collection, reviews and the development of strategies for change. This appeared to promote a high degree of QA awareness, which in turn appeared to have a positive impact on school performance.

Institutions C and D represented schools with a low degree or no formalisation of QA-activities and with an ad-hoc approach to data-collection, reviews and the development of strategies for change. This appeared to create an atmosphere of "confusion" with regard to QA; however, it was found to provoke a strong dialogue on quality matters and how to find solutions that guarantee teacher and student involvement in QA.

5.2.3 Factors from the Theoretical Framework Enabling or Constraining Review Within the VET Institutions Studied

Block A: The Design Process

5.2.3.1 Who Designed the QAS and How?

As already highlighted, QA activities in Denmark reflect the principles of the "goal-and-framework-governance" of Danish VET schools, which is seen as fundamental to the system. This governmental steering and control system has the direct consequence that the schools have responsibility for the planning and conducting of courses and hence also for QA.

First, it should be stated that the school management, teachers and students perceive QAS in different ways and thus also have different opinions on what to label as relevant quality indicators for school performance.

The management of the schools interviewed were very concerned about how "the customers" of the institutions assessed the services delivered. This influenced how they perceived and defined quality. In this "customer assessment context" quality was strictly seen as the capacity of the institution to meet the expectations of the customers (e.g. using satisfaction surveys to assess the fulfilment of these expectations).

In a context with no mandatory or external QA system except for the five mandatory requirements highlighted above, VET schools in Denmark make use of different approaches. This was reflected in the four case study schools, which displayed a variety of QA approaches and perceptions.

Institution A used a formal system (KVIK), which is a version of the Excellence/EFQM system. This system was developed by a Danish Government Office dealing with assurance mainly in public organisations. The school did not

implement this system fully but selected thematic areas according to management priorities.

Institution B was in the process of developing an independent Quality Assurance system in conjunction with an application for a specific nutrition certification. This new system focuses on IT-solutions and standards in relation to staff competences and teacher profiles. The system is also planned to cover standards for materials and IT-solutions. The accreditation process which is conducted by The Danish Evaluation Institute (EVA), referred to above, is expected to take 18 months. The Quality Assurance activities are dictated by external regulations developed by the EVA. The accreditation process also includes self-evaluation.

Institutions C and D did not work systematically with Quality Assurance models or approaches. It was seen by the management as more important to develop the quality of teachers' performance and hence initiatives were taken within this area. When these schools do address quality and Quality Assurance, the focus will be on fulfilling the political expectations concerning requests to comply with laws and regulations within the health care area. Additionally, these schools want to meet the demands from the local stakeholders, primarily the workplaces, who are expected to employ the graduates.

Institutions C and D used evaluation/satisfaction schemes primarily developed by the management and by individual teachers. Evaluations are conducted after every course, after the various school periods and at the completion of the courses. These evaluations are seen as standard procedures. In addition, other evaluations/satisfaction surveys may be conducted based on either the individual teacher's initiative, or in response to requests by the management.

	Factor
Enabling	Formalisation of QAS activities Design of own QA system External mandatory QA requirements
Constraining	Low formalisation of QA procedures

Block B: System Features

National basic and mandatory requirements with which all four institutions complied have been referred to above. In addition, all respondents provided a lot of information concerning quality and evaluation of their own services. In line with the observations made concerning design (Block A), a general division can be made between the four schools into two main categories:

1. *Institutions A and B* made use of a pre-defined model which had direct implications on data collection, data processing, output etc.
2. *Institutions C and D* defined QA in an ongoing and ad-hoc manner and thus made use of an approach defined for the individual purpose.

5.2.3.2 Quality Indicators for Institution A

Institution A was in compliance with the EFQM model using the following nine general indicators:

1. Management and leadership
2. Policy and strategy
3. Employees
4. Partnerships and resources
5. Processes, education and courses
6. Users' satisfaction
7. Employees' satisfaction
8. Environmental satisfaction
9. Key Results

These nine main indicators have been broken down into sub-components covering a number of defined subjects within each area. Acknowledging that the use of this system was still in an early phase, priorities were made across the whole range of indicators.

5.2.3.3 Quality Indicators for Institution B

- An overall review of marks achieved is conveyed to the school council and published on the college website.
- Consultations with the Dean every semester, during which the classes have the opportunity to express their views concerning the institution, the provision of education and the teaching.
- Consultation meetings are conducted every two years between the assessors and teachers.
- Qualitative and quantitative evaluations of each course are conducted by the institution every semester.
- Each class is given the opportunity to discuss the quality of education with the manager of the educational department after every semester.
- The institution carries out a survey concerning the attendance of the students.

5.2.3.4 Quality Indicators for Institutions C and D

As already stated these schools did not work systematically with Quality Assurance models or approaches. When asked how they dealt with this concept the management immediately highlighted three areas:

1. The yearly surveys on the teaching environments based on questionnaires.
2. The evaluations carried out by the teachers at the end of every teaching session.
3. Feedback from external stakeholders, e.g. employers and trade councils.

5.2.3.5 QAS Procedures

Data Collection Methods

To a large extent all four institutions made use of the same data collection methods. Obviously institutions A and B adhered to formalised and standardised questionnaires due to their regular and formalised QA procedures. These included among others:

- Self-developed satisfaction/evaluation questionnaires – student/teacher (all institutions).
- Self-developed self-evaluation tools (all institutions).
- Self-developed teacher appraisals (Institution B).
- Self-developed user satisfaction questionnaires (Institutions A, B and C).
- Self-developed drop-out analyses questionnaires (Institution A).
- Overall review of marks – sample sheets (Institution B).
- Self-developed evaluation charts for each subject (all four institutions).
- Self-developed sample sheets for collating and display of students' average marks (all four institutions).
- Self-developed bench marking schemes (Institutions A and B).
- Self-developed questionnaires for environmental surveys (all four institutions).

More informal methods included:

- Dialogues with students and stakeholders, e.g. employers.
- Minutes from various school council committees.
- Feedback from companies where the practical training took place.

Respondents

The institutions did not differ with regard to the target groups included in the data collection. The students and the teachers were the groups most frequently involved in data collection. However, during the last five years other (external) stakeholders have played an increasing role in the collection of data.

Data Processing

In accordance with its use of the KVIK approach, *Institution A* processed the information using the templates prepared for this system. The QA person was responsible for the data processing. In *Institution B* the information was processed and documented by the QA staff member according to the procedures set up by the management. Except for the data to be published on the websites, as a part of the mandatory system, there were no central rules or procedures for how the information was processed in *Institutions C and D*. The information collected was consequently not stored at a central file/office but was scattered around the different stakeholders: the management, teachers or pedagogical councils.

Output – Data Distribution and Discussion

All four institutions complied with the general and governmental requirement concerning the presentation of QA features on the school web-sites. As already mentioned these features covered five areas (1) Provision of education and subjects (2) Vision/mission/values (3) Public access to the institutions' average examination marks in all subjects and (5) Students' and employers' evaluations of education and the study environment.

Institution A was reportedly in compliance with the requirements of the KVIK approach. This school received the 2005 second prize for Quality "recognised for Excellence" in Denmark. In addition to the information provided on its web-site, *Institution B* had an extensive documentation on the intranet. Most of the information, including students' assessment of teachers' performance, was also accessible to the students. Feedback from QA activities in *Institutions C and D* was semi-structured. The general satisfaction surveys concerning school performance were accessible and made public to all stakeholders, e.g. management, teaching staff, students and school boards. The majority of assessment/evaluation conducted by the individual teacher/team was mainly discussed in small circles.

From the information provided, it appears that all four institutions found it a great challenge to link the systematic qualitative work to the daily education of the teachers. There seems to be a clear tendency among both teachers and students to perceive the extensive questionnaire surveys as activities not directly related to their daily routines. It is considered that the teachers were aware to a large extent of the purpose of the institutions' QA-activities. In addition, the respondents indicated that teachers were aware of the different aspects of QA. It was estimated that half of the teaching staff knows about QA.

All schools indicated that they involved the students to a large degree as respondents in questionnaire surveys. At the same time the schools assessed that the students were aware of the purpose and perspectives in QA only to a limited extent.

Publication of Data

Reference has already been made to the schools' web-sites and the intranet, which were used by the studied institutions to various degrees.

Validity of Data

The answers from all four institutions appeared to indicate two main views. Representatives from the management highlighted, that the findings of the various evaluations and surveys linked to QA were true reflections of what was delivered at the institutions. Consequently QA activities were seen as a robust basis for organisational and pedagogical change in the school.

The teachers acknowledged that evaluation is a vital part of a QA system but they emphasised that the current method of evaluation has several inappropriate features. The main criticism was that the evaluation approach, primarily dictated by the government and based on quantitative methods does not necessarily reflect the pedagogical objectives of the school.

Clarity of the Information

All four schools emphasised that it can be difficult to illustrate how the courses offered by the institutions comply with developments in the labour market. This indirectly implies that schools find it difficult to collect documentation supporting the follow up on the yearly development plans.

In some cases QA was found to have led to congestion of information. Taking a long perspective this may obstruct QA because the surveys may not be taken seriously. The teachers also highlighted that the feedback they get from these surveys may be very varied. They also stated that it can be difficult to identify what should labelled as "satisfactory".

The students and teachers at *Institution C* stressed that QA assessment can be a negative experience. They described how too many evaluations were in operation at once with each teacher setting up and implementing his/her own evaluation system. The students occasionally felt inundated by evaluations, but yet acknowledge that this could contribute to the development of both students and teachers.

Some teachers did report feeling pressure concerning the demands for documentation and the general ambition to change from a teaching to a knowledge-based institution. They acknowledged that employment by this institution was dependent on being prepared and willing to participate in close assessment and the monitoring of performance.

Required Staff Effort

Institutions A and B appointed specialised QA coordinators. At *Institutions C and D* QA was seen as an integrated task of the management representatives, who delegated, to some extent, a number of the undertakings to the teachers. *A recurrent theme in interview data was the view that the implementation of too many surveys can be counterproductive* especially if based on manual filling in, thus taking too much time and effort. The question "How can we know whether it is worth using precious time on these activities"? is a recurrent one in the context of user evaluations.

Some respondents, especially teachers, raised a criticism of the widespread use of satisfaction surveys. They, and also some students, questioned whether satisfaction in itself was clearly linked to the level and quality of student learning. Teachers additionally raised doubts about whether students themselves were capable of listing what expectations they had of teaching.

Goal QAS Use

Institutions A and B were confident that their QA initiatives proved useful for both the quality of the institutions' deliveries and the stakeholders' perception. The QA activities, according to the management's own perceptions, led to a higher level of insight into their own strengths and weaknesses. It was a common observation that the further away one moved from the management level, the less was the overall

and detailed knowledge of the institutions' QA system. This state of mind is not identical with dissociation from the need for QA.

Institutions C and D (both management and teacher representatives) mainly perceived quality as a matter of recruiting and developing skilled teachers. The schools did not work systematically with Quality Assurance models. As previously outlined, their QA focus areas were the yearly surveys on the teaching environments based on questionnaires, and the evaluations carried out by the teachers at the end of every teaching session. Both institutions are currently in the process of developing more systematised and structured QA approaches.

Extent of Problem-Solving Support

In *Institutions A and B* support involved both technical matters and data processing questions. Because both institutions appointed QA coordinators most of the information originated from these persons. In *Institution B* all QA activities were based on IT-solutions and standards in relation to staff, competences and teacher profiles. *Institutions C and D* provided support to the teachers by preparing and producing the majority of the evaluation/assessment schemes that made up the QA activities. These were mainly satisfaction questionnaires for students, who filled in these forms in the traditional way with pens and pencils. The teachers prepared and printed questionnaires strictly related to their own teaching.

	Factor
Enabling	Approaches that document various manifestations of quality A range of data collection methods Rapid response to satisfaction surveys Including students and teachers in QA Setting up goals for using QAS
Constraining	Governmental dictated quantitative QA methods

Block C: The Implementation Process

5.2.3.6 User Training and Implementation Support

In 1999 *Institution A* started to conduct self-assessment. This process was initially designed for the management and key staff members. This exercise was supported by an EFQM assessment course for the same persons. Ongoing courses for management and key staff members have taken place. As previously described, one staff member was working solely with QA, albeit on a part time basis. Otherwise the staff had not received specific QA training. Institution B focused on IT solutions and standards in relation to staff competences and teacher profiles. The system also planned to cover standards for materials and IT solutions. The staff had not been trained for specific QA purposes. If specific IT related problems linked to student

feedback should occur, then technical support is provided. The two other institutions investigated, *institutions C and D*, had not organised specific QA courses due to the informal and decentralised manner in which QA was handled.

5.2.3.7 Promotion of User Participation

Regarding the promotion of user participation, an obvious difference between *Institutions A and B* and *Institutions C and D* was observed. Institutions A and B had clear and publicly announced goals to work systematically with QA. This also meant that the staff was encouraged to participate in QA activities and discussions. It was evident that the officially formulated QA policy had led to ownership among staff. In some cases the outcome of the QA initiatives was found to cause staff aversion.

In *Institutions C and D* QA activities were seen as gradually integrating as the semester progressed. Hence the staff was in principle involved in QA activities but this was previously emphasised as taking place from another point of departure and perspective rather than a pre-defined framework and procedures.

5.2.3.8 Monitoring Implementation Consistency and Effects

The schools which were investigated found it relatively easy to collect and collate information concerning different aspects of QA. The next phase, which was about setting up clear and operational goals, was seen as much more difficult; and the same was the case for establishing and implementing a QA plan.

As previously described the monitoring and analysis of QA features were primarily conducted at the management level. Generally, the perception of QA as being a systematic and comprehensive approach becomes weak and scattered at the non-management levels.

In addition, the institutions investigated found it difficult to formulate QA objectives and to list prioritised goals because this process includes the various objectives of many different stakeholders and users. The institutions did, at the same time, recognise that the coming years will lead to more centralisation and demands on the schools to make use of standard QA systems.

For all of these institutions, QA activities have led to a higher level of insight into strengths and weaknesses. The schools were highly focused on the relations between the courses provided and their relevance to the particular labour markets to which the institutions were delivering candidates.

5.2.3.9 Availability of Extra Innovation Resources

It was impossible for the institutions to provide accurate indications of how much time was being spent on QAS. The following remarks cover the range of responses:

- Difficult to assess due the integration of quality in all school activities.
- Quality Assurance is often seen as an informal activity and as such impossible to measure in terms of time.

- The activity is gradually increasing.
- In one of the other three institutions QA is seen a part-time employment within the position of the information and press officer.
- It is a general assessment that QA can be seen as both time-consuming and resource demanding.

	Factor
Enabling	Promotion of user participation Involvement of staff in the QA implementation process Ongoing monitoring of quality indicators
Constraining	Lack of user participation

Block D: School Organisational Factors

5.2.3.10 Performance Level

It is difficult to draw conclusions about what kind of implications the performance levels of the institutions have for the institutions' QA strategies and development plans. The institutions stated that comparisons with other similar institutions would most likely demonstrate superiority in their favour, but this had not been documented. In addition, it should be highlighted that there are no official benchmarking systems in place to support comparisons between the various institutions.

Institution A received, as mentioned above, a prize for having implemented the KVIK system of QA, which is a version of the Excellence EFQM system. The prize was awarded by the SCKK, the Danish Centre for the development of quality and competences. The institution works on an ongoing basis according to the components of this self-evaluation model. At *Institution B* both the students and the teachers assessed their school as being far ahead in relation to QA activities. They see themselves as an institution which puts a lot of emphasis on development. Even if the institution is not participating in benchmarking, it felt that the school would have scored highly if this had been conducted. The institution uses research projects in teaching and this, combined with a cross-disciplinary approach, gives a unique position according to their own perception. This perception of their performance can be supported by the institution's ongoing efforts to get certification. Finally, the fact that the school uses a regular electronic feedback system on teachers' performance and students' assessment is highlighted as an "early warning system" that constantly guarantees QA. In the absence of QA models and external directorates, *Institutions C and D* constantly observe a number of issues as their key indicators within QA and development. These are the school drop-out rate, the average marks of the students and the employers' assessment of the apprentices.

5.2.3.11 Pressure to Improve

It is the general perception that currently a lot of both formal and especially informal pressure is put on the institutions. QA is a buzzword and all institutions have to deal with the concept in one way or another.

5.2.3.12 Attitude Towards QA

The attitudes to QA were very mixed, but with a very clear trend towards positive attitudes. One institution (*Institution B***)** differed significantly from the others in the sense that the teachers displayed both positive attitudes and rather adamant criticism of the satisfaction survey culture. The teachers at *Institution B* reported feeling pressure concerning the demands for documentation and the general ambition to change from a teaching to a knowledge-based institution.

The teachers at all institutions estimated that only 50% of the staff were ready and committed to work with a QAS and that some were even resistant to it. The teachers also assessed the level of cooperation as an indicator of quality and they would like to extend the cooperation if there were enough time. This cooperation was primarily directed at exchanging materials and the management was supportive and appreciative of any kind of cooperation that could lead to improved quality.

The students at *Institutions B, C and D* all expressed their support and appreciation of their schools. The students at *Institution A*, the only institution adhering to an internal and fully fledged quality programme, contrary to the other schools' students, expressed criticisms of the way the teaching was delivered and conducted. It was the general view among both teachers and students that QA activities can lead to greater insight and that data on quality can support identification and solution of problems.

	Factor
Enabling	Attitude towards change Pressure to improve
Constraining	

Block E: The Use of QAS

The small-scale survey documents the fact that the schools do have a will to work with QA to a wider extent than the mandatory regulations require. It also highlighted the fact that two of the four institutions, *A and B*, were working in a more structured and conceptual way than the other two, *C and D*.

According to their long-term strategy, *Institutions A and B* have set up clear guidelines for quality activities, for collecting and analysing data. *Institutions C and D* operated in a more ad hoc way by identifying quality indicators based on the daily and often informal discussion between the different stakeholders at the institutions.

Block F: (Un)intended Effects

The QA activities have led to increased QA awareness among all staff members. The teachers have on some occasions reacted with insecurity by focusing on the controlling aspect of the student evaluations. The management wants to promote a culture where quality is visible in all relations. This was very evident at the two institutions applying more structured QA systems. It was the general view that QA activities have led to greater insight and that data on quality can contribute to the identification and solution of problems. The two institutions not complying with formalised systems, *Institution C and D*, expressed an outspoken will and desire to develop more QA structures and ongoing approaches.

When asked if they would like to be part of a systematic Quality Assurance system there appeared to be different views. Both the students and the teachers at *Institution C* stated that they would not like to be part of a systematic Quality Assurance system. They could not envisage themselves in a system where it was necessary to be in control of different quality indicators, because this would jeopardise the present way of perceiving and handling quality.

Others, especially the management, both acknowledge and report being happy with the prospect of more centrally organised QA procedures. This applies particularly to the two institutions which had the most advanced and structured QA system, *A and B*. At the same time some teachers at *institution B* did, as already mentioned, differ from the rest by displaying a rather heavy criticism of the QA initiatives taken by the management.

5.3 Conclusion on the QA Culture

In section 1, the Danish context and culture of QA in VET was briefly described. Emphasis was put on the fact that all VET schools in Denmark have, at a minimum, to comply with five mandatory requirements concerning QA, and additionally have to document and publish these obligations on the school website.

In addition, it was stressed that there are no Governmental Inspectorates conducting regular inspections in the VET schools. Due to this and other factors, e.g. culture and tradition, the majority of Danish VET institutions do not apply external standardised QA systems. Instead they apply their independently structured and developed systems. Hence, QA is seen as often constituting a very loose framework for how quality is perceived and applied. This situation regarding the concept of quality places demands on the willingness of staff members to discuss the outcomes of QA.

It is seen as a great challenge for all schools investigated to follow up or change/adjust the goals of the QA objectives. It is essential to provide QA activities with more visibility regarding how the institution is developing and "how to do things". It is especially seen as difficult to link the systematic QA with the practical daily routines, a factor which can thus be both an enabling and a constraining factor.

The table below summarises which factors appear to promote or block review processes in the four institutions studied.

	Factor
Enabling	Approaches that document various manifestations of quality A range of data collection methods Rapid response to satisfaction surveys Including students and teachers in QA Setting up goals for using QAS Promotion of user participation Involvement of staff in implementation process Ongoing monitoring of quality indicators Attitude towards changes Pressure to improve
Constraining	Government dictated quantitative QA methods Lack of user participation

Block A

The study showed that two of the four schools have developed their own systems, but in different ways. It also appeared that the institutions selected QA activities which complied with the other policy targets for the school. One school prioritised the achievement of certification within the nutrition and health area and accordingly pinpointed evaluation procedures that can support this process.

The two institutions with the most limited degree of QA activities were first and foremost focused on drop-out rates and employers' satisfaction with the apprentices, and consequently their QA was concerned with these factors.

Finally, one institution used a formal system but not by implementing the whole concept but by selecting areas according to priorities made by the management on a yearly basis. The institution is part of a university and this may be an explanation for the selection of an external QA system.

Block B

Regarding the characteristics of the Quality Assurance systems in the four institutions, the data indicate that more extensive evaluations and regular QA procedures lead to a comprehensive institutional perception of their own performance. This also appears to encourage more extensive QA activities.

To a large extent all four observed institutions make use of the same data collection methods. These are obviously, as already referred to, determined by the mandatory requirements.

The schools with established platforms/QA staff have standard and regular procedures for collecting and collating information. This makes information concerning student satisfaction and performance available to all stakeholders involved in the institutional activities.

For schools with an ad hoc approach to QA the information provided is often accessible to a more restricted group depending on who is involved in the activity, e.g. the individual teacher, specific management representatives etc.

Block C

The case studies clearly documented that the four institutions were on different levels with respect to how QA was implemented. QA training and instruction for the teaching staff was only to a limited extent conducted in one institution. Specific staff training was only offered to the persons who were specifically appointed to deal with QA. Hence, there was room for improvement.

It was significant that the further away from the management one moves the less meaning and importance the concept of Quality Assurance has. The players in the school context have a narrow perception of quality. The teachers mainly see it as the education/training delivered and the students perceive it as the feature of the lectures delivered to them.

The general conclusion from the interviews is that it is a QA challenge to avoid the perception that quality is something that must be worked with because it is an external mandatory demand, but on the contrary, that it is of vital importance for the quality of the teaching and courses delivered.

In continuation of the statement above, it should be added that the management sees it both as a challenge and in some cases as a problem to link systematic QA with daily instructional activities. As referred to in the reports, both the teachers and students mention that the large number of questionnaires can be perceived as having a limited relevance for their own daily routines.

Block D

It is the general impression that there is a fairly strong pressure to improve the QA of the individual institutions. This is partly explained by the obligatory requirements of transparency in QA features as explained previously and by the fact that the students have a free choice regarding which institutions they may apply to. Hence, this is seen as the major drive to initiate QA and this can be enforced by the positive QA attitudes at the management level.

The management assessment was that the staff had, to a large extent, knowledge about the objectives of QA; and the teachers shared this statement, although the tentative conclusion from our limited number of interviews indicated that teachers' knowledge of general QA, was not as high as the management assessed it to be, and is limited to the quality of teaching.

When the schools address quality and Quality Assurance the focus will be on fulfilling the political expectations concerning the request to be in compliance with the laws and regulations within the health care area, and in addition, to meet the demands of the local stakeholders, primarily the workplaces expected to provide employment for the graduates.

The students are mainly supportive of QA, but in the restricted sense that they perceive quality as how the teachers perform and the quality of the physical environment.

Chapter 6
Factors Influencing the Use of Quality Assurance Data in Estonian (I)VET for the Health Care Sector

Eeva Kesküla and Krista Loogma

6.1 The Estonian Context of Quality Assurance in (I)VET

6.1.1 Structure and Organisation of Estonian (I)VET

Estonia's VET system is a school-based system; theoretical knowledge is provided in VET schools, followed by practical training in schools' workshops and enterprises. In Estonia, vocational education can be acquired in either VET schools, or in institutions for applied higher education. Vocational education at secondary level may be started either after graduation from primary school, or after graduation from upper secondary school. Curricula for secondary vocational education take three years to complete. The duration of vocational education after secondary education is from one to two and a half years. Graduates from vocational schools who wish to continue their studies in universities must pass the national examinations required by a university for entrance, like graduates from upper secondary schools. Professional (non-academic, applied) higher education is provided as applied higher education in a vocational school, or in an applied higher education institution. Applied higher education institutions offer non-academic higher education with an emphasis on professional skills and competences. In this type of education at least 30 per cent of the workplace training must take place during the study period. The standard period of study in applied higher education is three to four years. The new organisation of the educational system is relatively recent, as it was introduced legally only in 1998.

The Estonian IVET system during Soviet times was extremely centralised and regulated in the context of a centrally planned economy. The Estonian role in the Soviet economy and the characteristics of labour distribution determined the character of the local VET system, and the professions taught in the schools. Due to the industrial basis of the Soviet economy, most of the vocations taught were related to VET prepared especially for the industrial sector. Central planning

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and strong ties between schools and enterprises ensured the high correspondence between VET and the labour market. While the Estonian general education system managed to maintain more independence and served as one of the central mechanisms of cultural resistance, vocational education mostly served economic interests (Ümarik and Loogma 2005). Structural changes in the economy during the transition period brought along a fall in employment in the agricultural and industrial sectors, and a rise in the service sector. These structural changes in employment brought along extensive changes in the structure of the curricula of VET institutions.

The reform of VET after the collapse of the Soviet Union started significantly later than the reform of the general education system. During the 1990s, priority was given to general and higher education institutions rather than to VET. The first strategic initiative "VET concept", and the new legal framework for vocational education institutions were formulated in 1998. In between, the liberal adjustment of VET schools to changing economic, social and demographic developments took place. Due to the relatively liberal reorganisations taking place in VET schools in the early 1990s, the quality of education and the curricula in VET schools vary considerably.

Even the state VET curricula has not been implemented yet in VET institutions and each school may have its own curriculum: it is stated that curricula should be based on a national professional standard and be approved by the Ministry of Education and Research. The curriculum determines the number of subjects, the proportion of theory and practice, the share of practical training at enterprises, and also the assessment system.

The general problems of VET are pointed out in the report of the National Audit Office (2004). First of all, it is stated that Estonian VET needs an integral Quality Assurance System (QAS). Although the controlling systems of the Ministry have improved every year, private institutions must regularly renew their permits, and the evaluation of schools based on the same general criteria has taken place, integral QASs are still lacking. What is lacking is insight into the quality of IVET and the levels of student achievement. Information about employers' needs and their levels of satisfaction about the ways in which students are prepared for the labour market is also rather limited. Due to low student admission rates and high drop-out rates, the number of graduates for professions in high demand is low. Furthermore, solutions for dealing with unpopular professions have not yet been found. Although national curricula have not been developed yet, the introduction of professional standards for IVET is a positive development. As to the traineeships, the importance of these varies across schools. There are no standardised requirements for the practice facilities in schools and there is little cooperation among schools for using each others' facilities. The National Audit Office also found that there was instability in financing the traineeship system, thus slowing down its development. As for the future of IVET, there is a threat to its sustainability due to the high number of older teachers, and the lack of younger ones. A high workload and low pay act as impediments to younger teachers choosing a career in VET. Also, teachers who have been working in schools for decades may not be aware of current developments in the field.

Finally, it was pointed out that the potential of VET schools as providers of continuing education has not been accomplished. (National Audit Office 2004)

Nurses are being trained in the two health colleges of Estonia which are institutions for applied higher education and which issue a bachelor's degree after three years of study. As in the rest of the VET sector, the two medical schools that participated in this study have been through recent, fairly radical changes. Although their predecessors were established in the 1800s, their nature has changed and their goal of providing education up to Master level is new. From Soviet schools teaching at the secondary level of education on the basis of eight or eleven years of previous general education they have been transformed into applied higher education institutions that issue bachelor degrees. These developments are based on intensive international cooperation, and on learning from others countries' experiences in creating academic curricula that correspond to European standards. Compared to other vocations in Estonian VET schools, the field of training nurses is much more regulated, partly due to the international (EU) regulations for the nursing profession.

After IVET, the further education (CVET) of nurses is commonly provided at hospital training centres. There have also been changes in the structure and nature of hospitals in the last ten years. A major restructuring has been taking place from 2000 onwards, with smaller hospitals being subsumed into bigger units. This has led to significant changes in the structure of the units. It has taken some time for employees to adjust to this, and for the new structure to start functioning. New units have also led to new hospital training centres, units that should follow the QAS of the hospital. The main aim of the hospital training centres is training rather than treating patients and therefore their quality improvement activities are similar to those of the medical schools.

6.1.2 Reasons for Quality Assurance in Estonian (I)VET

In formal education in Estonia, the organisation and conduct of state supervision is regulated by the Vocational Educational Institutions Act (1998) and Applied Higher Education Institutions Act (1998). This covers the organisation of state inspections for both of the school types, and accreditation for applied higher education. The Universities Act (1995) established that the evaluation of educational institutions and their curricula is conducted through accreditation. The relevant provisions of the Universities Act also apply to the accreditation of institutions for applied higher education and their curricula. In 2001, internal audits were added to the evaluation and control activities carried out in the form of state supervision and supervisory control. According to the Government of the Republic Act (1995), the heads of state educational institutions have to appoint a person responsible for internal audit.

The system of state inspection/evaluation was established by the Vocational Education Institutions Act. Quality control at state level is conducted by the Ministry of Education and Research and the head of the county, and it is aimed at the efficiency and lawfulness of teaching activities. The inspectors inform the school director

about the visit and evaluation plan and have the right to visit lessons and meetings of the school board, and conduct tests to assess students' knowledge. The inspectors can then make suggestions to the director about the improvement of management and teaching activities, ask for changes to the legal documents of schools so that they are in accordance with the existing law, make suggestions about the efficient and lawful use of budget and property, make suggestions to the owner of the school (the Ministry, or the city or municipality government) about the improvement of school conditions, and suggest disciplinary sanctions regarding the director if needed. After the state inspection, a document will be drawn up and presented to the Minister and the school director. It is compulsory to carry out the changes proposed by the inspection body.

6.1.3 External and Internal QA in Estonian (I)VET

6.1.3.1 External Evaluation

In addition to the state supervision and supervisory control, accreditation is another way of evaluating higher education institutions. This also applies to institutions for applied higher education like the medical schools. The accreditation system has been in existence since 1997 and is based on self-evaluation and external international peer review. In the accreditation process an evaluation is made as to whether the institution and the curricula correspond to the requirements determined by law. The categories assessed include the content of the programme, the quality of teaching, management practices, the state of the study facilities, and Quality Assurance practices. Accreditation is carried out by the Centre of Higher Education Accreditation and the Higher Education Assessment Council. These institutions are financed by the Ministry of Education and Research. Three accreditation categories have been used: accredited, conditionally accredited and not accredited. Full accreditation of the programme is granted for a period of seven years; conditionally accredited indicates that an institution or study programme under review has major shortcomings which need to be eliminated or addressed in the following three years; and not achieving the accreditation results in closing down the study programme.

In order to help VET schools improve their quality at institutional level, a VET School Quality Award has been initiated. The idea was initiated in 2003 with nine VET schools participating in the final competition. The award follows the European Quality Award model and 11 VET schools are participating. One of the aims of the Ministry of Education and Research is to establish a common Quality Assurance system for VET schools "based on an integrated methodology, and both self-evaluation and external evaluation by international experts and local employers" (Ministry of Education and Research 2005).

6.1.3.2 Internal Evaluation

In 2006, the Ministry of Education and Research established an internal evaluation obligation in pre-primary education institutions, general education institutions,

and vocational schools. Before 2006, legal acts did not establish a direct obligation to conduct internal evaluations in educational institutions. The regulation of general education institutions teachers' councils established that at the end of every school year the teachers council evaluates the school's results in education and schooling activities, and makes proposals to the school's administration for improving the performance of these activities. The results of state supervision indicate that internal evaluations are being carried out in schools but not in a systematic way. In 2005, in the National Examinations and Qualifications Centre an external evaluation department was established, organising and coordinating the activities of counsellors. The purpose of counselling is to enhance the objectiveness of evaluation and to deepen the educational institutions' awareness of their actual situation, offer necessary additional information for comparison and support, develop the conduct of internal evaluation, and promote evaluation readiness and an evaluation culture. As part of encouraging internal evaluation, the Ministry has issued a handbook for schools which also contains recommendations for VET schools.

The recent change from external to internal evaluation signifies an important shift in approach: instead of regularly checking educational institutions and thereby collecting information for education policy decision-making, educational institutions are directed towards the self-analysis of their activities. This approach is in line with the overall tendency of education policy – to increase the independence and self-management of educational institutions.

The training centres of hospitals or private centres offering courses are not obliged to have an external quality system, and have instead implemented a system for internal improvement.

6.2 The Results of the Case Studies

6.2.1 Introduction

Case studies were conducted in five Estonian institutions that were training nurses either as their initial training or as professional development after graduation. There are only two medical schools in Estonia, in the two major cities. The other three institutions studied here are training centres that offer continuing education courses for nurses. Two of these training centres participating in the study, Training Centre 1 and Training Centre 2, are structural units of hospitals; and the third, Private Training Centre is a private institution. Stemming from the different nature, organisational set up and goals of these institutions, some differences in QA emerge: the training centres focus on the quality of training mostly while the two medical schools have a more comprehensive QA system striving for quality improvements also in the areas that are not strictly related to teaching.

For the medical schools, having a QA system is a requirement for accreditation; while the training centres linked to the hospitals work in the context of either a more or a less elaborated QA system originating from the hospital while having their

own additional QA exercises. Therefore, some of the factors from the REVIMP theoretical framework for QA are not directly applicable to the training centres. The training centres being relatively small units linked to the hospitals might also experience the same problems as schools do, e.g. communication flows, but they also might be concerned with other issues, e.g. being a support unit rather than part of the primary activity of the organisation.

6.2.1.1 Data Collection

The data on the QA of the institutions were collected by means of interviews with staff (teachers, Quality Assurance coordinators, managers) and students in each of the institutions and by studying the relevant QA documentation of the institutions.

6.2.1.2 QA Systems Used in the Case Study Institutions

Significant differences exist between the institutions regarding the thoroughness and development of the QASs they use. The tendency, however, is to use internally developed systems rather than systems based on specific models. The medical schools both used internally developed systems that were inspired by other VET school QA systems that the management had seen in Finland and elsewhere. In Medical School 2, the system was based on the Total Quality Management (TQM) model. All of the areas of evaluation in the QAS were the same as in the TQM. However, they were customized in co-operation with the different departments: the school psychologist, the head of curricula, departmental coordinators, and others. In training Centre 2 quality management consisted of a feedback form for the participants in each training course, and summaries of the feedback participants gave. However, no QAS has yet been developed at hospital level. In Training Centre 1, at central level the INK Management model forms the basis for Quality Assurance. This model has been developed externally and is also used in many other organisations. In addition, the training centre uses feedback questionnaires about specific training sessions and trainers. At the Private Centre, the Quality Assurance System is inspired by the TQM and ISO systems; it mainly consists of an internally developed feedback questionnaire.

6.2.2 Ranking the (I)VET Institutions

6.2.2.1 Medical Schools

(1) Medical School 1
(2) Medical School 2

Medical Schools 1 and 2 are both effective in the reviewing process and both have a comprehensive system of QA. Also, both of the schools are going through an ambitious transformation from a vocational school to an institution for applied

higher education that requires different teaching and organisational standards, and different review processes. Both schools have a developed system with regulation of the collecting, presenting and monitoring of results. Both provide significant examples of the conceptual and instrumental use of their QASs and improvements that have occurred since the use of the systems. However, in Medical School 2, one of the deficiencies pointed out was that the system of processing data and presenting could be further computerised which would make it easier to process and access data. Also, training and involving staff could be further developed in Medical School 2. Medical school 1 did not mention such problems. As further development is needed in Medical School 2, one could say that Medical School 1 is more successful in the review phase of the QA.

6.2.2.2 Training Centres

(1) Private Training Centre
(2) Training Centre 1
(3) East Tallinn

The Private Training Centre has used its QAS for ten years and has therefore had the most time to modify and adjust the system to the needs of the school. The highly motivated manager/owner is very interested in the data and the improvements. The QAS is explained and feedback is given regularly, and, as the institution is using contractors as trainers rather than permanent staff, it is easier to continue cooperation with trainers with good feedback and to terminate it with those who do not use the feedback. The small size of the school makes communication personal and facilitates the acceleration of any changes made in the organisation.

In the Training Centre 1, the feedback system has not yet been fully developed and the feedback questionnaire could be further refined. There are two versions of the feedback questionnaire. One questionnaire is not anonymous and it is therefore hard to judge the quality of the data. Although some ideas for changing the courses have been implemented based on the feedback sheets, the full potential of the QAS can not be utilised until the instrument for collecting the data has been developed.

In Training Centre 2 also further development of the questionnaire and QAS is needed and planned. At the moment, there is no regulation with respect to the feedback: although the trainers can come and ask the training centre for feedback this is not given regularly. This obstruction in the information flow might be blocking the full potential of the teachers to improve their teaching. Changes in the course environment, equipment, the course content and training needs have however taken place based on the feedback system.

Looking at the cases above, it could be said that the successful utilisation of the QAS data is linked to the duration of the use of the QAS, showing that the QASs that have been in use longer are better utilised, as they cover the data needs better. Comparing QAS use between different schools, the two medical schools are fairly similar in their use of the Quality Assurance systems although one of the QASs is based directly on TQM and in the other case the system is rather an ‘in-house production’.

Medical School 1 seems to have a more advanced system. Comparing the training centres, the Private Training Centre has a fully implemented and well functioning system, while the other two are still experimenting with their approaches, and acknowledging the amount of work and resources needed for further development of the QAS, in cooperation with the overall quality system of the hospital.

6.2.3 The Factors from the Theoretical Framework Enabling or Constraining Review in the (I)VET Institutions Studied

Block A: Design Process

6.2.3.1 Who Designed the QAS and How?

In most of the institutions studied, the QAS has been developed in the institution by the internal staff (management, training centre personnel, teachers etc.). While most of the design work was done internally, Medical School 2 and the Private training centre have based their QAS on already existing systems, such as TQM and various other educational quality management systems. While the training centres seem to use an internal QAS design approach more, the two medical schools draw more from outside sources, and the private centre has based its QAS on the various models available. Medical School 2 has been identified as somewhat less active in the review process than Medical School 1 and the Private training centre – which has also used TQM and other externally developed systems as the basis for the school QAS – is among the most active reviewers. It seems that the designer of the QAS (external or internal) has no impact on how successful a school would be in terms of using their QAS data.

6.2.3.2 Design Goal: Improvement, Accountability or Certification

The most important design goal for all the schools/training centres is improving the functioning of the organisation/department. External accountability and certification are only relevant to the two medical schools that compete for students and need their curricula to be accredited by the Ministry of Education. However, they do not define external accreditation as the most important function of their QA. Little feedback has been received from the Ministry during the accreditation process, and therefore the main benefits of the use of the QAS appear in the internal use of the QA data with internal improvement as an important goal. For the training centres, improving the internal functioning is even more important as there is no real competition between the institutions. The main design goal for all institutions is internal improvement. This is the same for all the training centres and all the schools, both those more active and those less active in the review process, therefore it is difficult to explain the differences of reviewers based on this factor. In general, having a clear design goal supports an effective review process, and having external accountability as a secondary goal, and internal improvement as the primary goal seems to promote the review process.

	Factor
Enabling	Design goal (improvement)
Constraining	

Block B: QA System

6.2.3.3 The Quality Indicators

The quality indicators, especially the ones for the training centres, concentrate on in-class training, and the most common ones are overall satisfaction with the course, the course content, the trainers, the training environment and equipment, the expectations and outcomes of the course, the relevance of the course content, and the need for other courses. In addition, Medical School 1 is using indicators of satisfaction with general organisational functioning and a detailed list of institutional features such as management, policies, strategy, staff, partnership, and resources. The indicators used in the two medical schools have a wider focus (aspects of the functioning of the organisation) but it might take a few more years to find out whether all these indicators are actually useful. The questionnaires used in the training centres are mostly limited to the content of the training, and in some cases the questionnaires do not cover the required information. In some cases, the QA staff continues to use questions in the questionnaire that have not produced any meaningful data for years and there is a lack of development of the questionnaires.

The two colleges and Private Training Centre that use a wider range of quality indicators are generally considered more active reviewers. This does not necessarily mean that having more indicators guarantees a better review process, as for example Medical School 2 has indicated that they do not have the necessary resources to process all the data. Also the training centres only need data about training content and facilities that are mostly covered in their questionnaires but could be developed further. In conclusion, a wider range of quality indicators might better enable the review activities if there are means of processing and interpreting the data; but based on the evidence of these cases, it is difficult to say whether a wide range of quality indicators leads to a better review process.

6.2.3.4 Procedures of QAS Use

Data Collection Methods

The most widespread method of collecting data is using feedback questionnaires for learners after a training course, feedback questionnaires for employers, placement supervisors and employees; but oral feedback is also used and considered important. A wider range of procedures is applied in the medical schools. For example, in Medical School 1, the international accreditation committee gives feedback for curriculum improvement, students give feedback on the courses as well as on the general

situation in the school, feedback is gathered from teachers, also a risk analysis of the work environment is conducted, and employee performance is reviewed and discussed in meetings. Once a year, feedback questionnaires are given to employers and to the professional associations. It generally seems that a wider range of data collection methods supports gathering different data contributing to the functioning of the whole institution rather than just collecting data on student satisfaction with the training courses.

Respondents

All of the investigated institutions collect data among students and teachers; in addition, the medical schools also collect data from the management, placement supervisors, professional unions, and project partners. Neither the hospital training centres nor the private training centre collect information from the workplace managers of the learners. The manager of one of the training centres admitted that this was a weak point of their current QAS. It generally seems that successful reviewers involve a wider range of respondents and involving too few can be seen as a constraining factor because the stakeholders' needs are not considered. This is expressed in the interviews when the training centres are not aware of whether their training has developed the skills of the learners, and how this is expressed once they are back at their workplace.

Data Processing

In the medical schools, the areas covered by the feedback are extensive while the systems of data processing, integrating and presenting them have not developed at the same pace, making the immense amount of data difficult to use. It is hard to say whether the fault is a too extensive system, or that the support functions (e.g. accessibility, computerisation) are lagging behind and block the usage of all the QAS data gathered. Although the interviews indicated that additional software (e.g. SPSS) would give more opportunities for analysing the data, it is not clear that more successful reviewers would necessarily be equipped with more sophisticated computer software. The data is in all cases processed by means of computers (word processing, spreadsheet) by either the head of the school, an assistant, manager, or an organisational psychologist. In the medical schools with the more extensive QASs, the data gathering and processing could be optimised to improve efficiency.

Output

The presentation of data varies. In most cases, both qualitative and quantitative data is used, graphs showing trends and comparisons are made. Graphical representation (only plain text) only is not available in the case of one of the least active reviewers. As in the cases of more active reviewers the different modes of output exist, this factor can be considered as enabling a successful review process.

Data Distribution and Discussion

In most cases, Quality Assurance data is distributed to trainers and other staff by giving them individual feedback. Results are generally presented and/or discussed in meetings that take place from every two weeks to twice a year. Data distribution and feedback to teachers is organised in a systematic manner in four out of five cases: in Training Centre 2, there is no current plan for data distribution – rather, if a lecturer is interested in the feedback (s)he can discuss it with the manager of the training centre. As the relatively stronger reviewers distribute feedback regularly, data distribution can be considered to be an enabling factor.

Publication

The QA data is not published in all the cases. In the smaller institutions that only use the QAS data for internal improvement purposes, there is no need to publish it more widely. Whether the data is published or not therefore cannot be considered an important enabling or constraining factor.

Relative and Absolute Information

In Estonia, the QASs do not provide relative information (comparisons with similar organisations or departments). There does not seem to be a clear opinion about whether such data could be gathered or is needed in an environment of virtually non-existent competition. In the future the medical schools are planning to compare their data with other VET schools but the standardised system is still under development.

Validity of Information

Generally, the QAS data is seen as covering school quality relatively well, and the information is up to date as it is gathered regularly, generally after every training course. The information is regarded as very clear and easy to use in all of the cases. Although the results are the same for all cases, this can be considered an important factor for the success of QAS enterprise.

Staff Time & Effort

All the institutions studied generally agree that much time and effort are required for using the QAS, but this is less the case amongst teachers than amongst the people who are actually responsible for the QAS work. In the case of a relatively weak reviewer, the manager found the current QAS not very time consuming because the final system had not been fully developed. The successful QAS used by the more active reviewers seemed to have taken much effort from the staff involved in developing it, but did not burden the respondents too much. The only institution where little staff effort was put into the QAS has a fairly inactive reviewer. Therefore, QAS staff effort seems to enable QA data use.

Problem-Solving Support

All five institutions claim that help and support is available when needed and is given orally. It is given by the management or by the staff responsible for the training centre QAS, or their direct manager. At the same time, it is clear that seldom was help or support needed. The only people who have needed help are Russian-speaking students who do not understand the questions in the feedback questionnaire. This is generally the same in all the schools, making it difficult to assess whether the availability of problem-solving support is in any way impacting on the use of QAS data.

	Factor
Enabling	Different data collection methods Varied output Data distribution Validity, clarity of information Staff effort (QA staff, not stakeholders or teachers) Clarity of the QA enterprise
Constraining	Few different groups of respondents

Block C: Implementation Process

6.2.3.5 User Training and Implementation Support

In most of the cases, QAS training for target users has not taken place, this being the case with all the training centres in the clinics. Training, however, is taking place in Medical School 1 of the colleges and will shortly be implemented in Medical School 2. The training taking place focused on the use of the QAS and quality improvement in the institution. Not conducting training in the training centres is linked to the nature of the feedback system which is rather self-explanatory and limited to training feedback. By contrast, the medical schools use a more extensive and complex system, and the use of QAS data is not constrained. Therefore, although the medical schools have or will be trained and the training centres will not, this stems from their different organisational and QAS structures rather than explaining their QAS data use.

6.2.3.6 Promotion of User Participation

Regarding the promotion of user participation, the most successful reviewers have involved staff in the use of the QAS most. In Medical School 1 and the Private Training Centre, teachers are involved. In Medical School 2 the teachers do not seem to be aware of the QAS, claiming that the ‘administrative side’ is responsible for it, or that the QAS was developed and discussed in the past. The students are involved when changes are made using their QAS data but they are not involved in the QAS

implementation process. The two training centres that are poorer reviewers have not involved users apart from the training centre staff in implementing the QAS. As more successful QA institutions have involved a wide range of users, the lack of user participation can be seen as a constraining factor.

6.2.3.7 Monitoring the Implementation

In the two medical schools, monitoring the implementation of the QAS does take place in the form of performance review meetings, or it is done by the internal auditor. In the training centres, there is no official monitoring process, but monitoring does work in the following way: if a teacher gets negative feedback, the results are discussed with them and suggestions for improvement are made. The results of the next round of feedback are checked to see whether improvement has occurred. Therefore, monitoring the QA process, whether it is more formal or informal, can be seen as supporting a successful review process.

No specific resources have been allocated for the implementation of QAS in the training centres; however, in the medical schools money has been allocated for Quality Assurance training, and for salaries of staff focusing on institutional quality. Both medical schools are rather active reviewers compared to the two hospital training centres where the extra resources had not been allocated; this confirms the benefits of extra resources.

	Factor
Enabling	Monitoring the implementation Extra resources for innovation
Constraining	Lack of user participation

Block D: School Organisational Features

6.2.3.8 School Performance Level

Although many admit that it is hard to compare the performance levels of medical training institutions in Estonia, all the managers describe their school's performance level as high, indicating that this factor is not an important incentive for improvement. It is difficult to say whether it is an enabling or a constraining factor.

6.2.3.9 Pressure to Improve

Apart from the accreditation process for the medical schools, there is no external pressure for improvement. The pressure is rather coming from inside: students and nurses are demanding the best education possible. Although reporting to the Ministry of Education is mandatory, this is regarded more as a formality which does

not involve actual feedback. No school reports any significant external pressure to improve, indicating that no direct link can be seen between this factor and a successful review process. But as nearly everyone mentions pressure to improve from the inside, this probably does contribute to QAS use.

All of the school managers and the teachers assess their staff's attitudes towards innovation as fairly good. As interviews with the teachers of Medical School 2 (the less successful reviewer of the two medical schools) showed, some teachers might see QA work as an administrative burden, and they probably are not interested much in innovation. In conclusion, as more successful reviewers demonstrate more support for innovation among their staff, 'innovation attitude' is contributing to the use of the QAS data.

The Estonian institutions studied can be described as learning- and innovation-enriched organisations. This is reflected in the fact that all of them claim that the teachers co-operate very intensively and that teachers and other staff continuously try to improve their own performance. Improvements would be needed in the area of staff feeling valued and rewarded for taking improvement initiatives. Although no differences occur between active reviewers and the less active ones, having innovation-enriched organisations is an enabling factor.

High reliability school. The schools consider reducing uneven performance among students 'very much' (2), or 'much' (2) as their central goal, with one institution seeing it as their goal 'to a fair degree'. Four out of the five institutions regarded their general level of coordination across classrooms and between activities as very strong. One school however assessed their level of coordination as not strong at all. Generally, as in most schools coordination is strong, reducing uneven performance and the level of coordination between classrooms and activities is at a fairly high level. Although no differences occur between active reviewers and the less active ones, having a high reliability school is a rather enabling factor.

	Factor
Enabling	Internal pressure to improve staff's innovation attitude Learning and innovation enriched organisations
Constraining	Staff feeling valued for innovation

Block E: Use of QAS

6.2.3.10 Conceptual and Instrumental Use

Conceptual use is reflected in the attitude of the Private Training Centre's manager who indicates that the attitude of constant change and renewal of the courses on offer and the curricula is present, and based on the QAS data, and this could also be detected in the other training centres. The medical schools and also the training centres gave more examples of instrumental use though.

All the training institutions have carried out problem diagnosis based on feedback questionnaires. This has been the basis for future development, or action plans, and for setting goals in all the interviewed institutions. Also, all of the schools have carried out improvements based on the feedback, concentrating mostly on training issues (content, adding new courses) but also on equipment and other facilities in the school. The instrumental use of the QAS is present in all cases.

The medical schools present a wider range of changes that were based on feedback. The development and action plans of these schools are mostly based on feedback, problem diagnosis and setting goals in the development plans. For example, in Medical School 1 a library was created after setting the goal of writing less and learning more in the lectures, and having more material available in the library and renovating the cafeteria. In Medical School 2, the feedback has improved the availability of teachers during office hours. In addition to material conditions, the courses offered (e.g. the first aid course that nursing students wanted) and the content of the courses have been reviewed and improved. A further example comes from Medical School 1 where the students were complaining about a lecturer only focusing on one topic but, in the following year, because of their feedback the course content was changed. Both Medical Schools 1 and 2 can provide many examples of organised improvements on the basis of feedback at manager, teacher and student levels. In the training centres, the feedback initiating changes relates to changes in course contents and new courses offered. This constant change based on the marked demand for courses and their content is especially visible in the most active reviewer. Also the physical conditions were subject to change. Training Centre 1 and Training Centre 2 also reported adding new courses and changing their content, but they also mentioned that, due to the nature of the training courses, learners only visit the Training Centre once, and they are therefore less aware of the impact of their input.

Block F: (Un)intended Effects

Generally, when looking at the effects of the QASs it was mentioned that it has boosted the self-confidence of the teachers and the organisation. In one of the cases it was also mentioned that the feedback has caused more concern about quality. All of the managers agree that the use of QAS has led to student performance improvement, both in classrooms and at the workplace, based on employers' feedback. The general opinion is that the use of QAS has also reduced the student drop-out ratio while it is actually hard to say, as in the training centres everyone passes the course. An increase in student employment, based on the statistics, has been noted in one case but, once again, this does not apply to the training centres. Improvement in learning programmes is mentioned in all five cases. This is expressed in the programmes being up to date and in co-operation with employers for continuous improvement. Better teaching is also prevalent, being expressed mostly in new teaching methods. Other areas of improvement have been mentioned: improvement of management and organisational functioning, improved information flow and cooperation and communication between different parties and also trainer motivation systems.

Negative effects are currently not present in any of the institutions, but were apparent at the start of the QAS when teachers were not prepared for critical feedback. Over the course of time they have realised that feedback is in their own interests.

6.3 Conclusion

As shown in the first section, the QA activities are only compulsory for the two medical schools that have the legal obligation for accreditation. The three training centres have no obligation for it but still carry out QA activities. Different institutions vary in terms of the extent of the QA activities, the length of time the QA has been used, staff attitude and other factors.

	Factor
Enabling	Design goal (improvement)
	Wide range of data collection methods
	Varied output
	Data distribution
	Validity, clarity of information
	Staff effort (QA staff, not stakeholders or teachers)
	Clarity of the QA enterprise
	Monitoring the implementation
	Extra resources for innovation
	Internal pressure to improve
	Staff's innovation attitude
	Learning- and innovation-enriched organisations
Constraining	Few different groups of respondents
	Lack of user participation
	Staff feeling valued for being innovative

The analysis of Block A, the design process, showed that in the Estonian case there was no difference between the situation in which the QAS had been internally designed, and the situation in which it was based on an already existing system, as some of the more successful reviewers had their internally developed system and some had modelled their QA systems after QA systems used in other schools or institutions, such as TQM. Internal improvement is the main goal of QAS for all the institutions. Even if external accountability is mandatory, as in the case of the medical schools, this is only considered as a goal to a certain extent as no useful feedback or planned improvement activities stem from accreditation according to the managers. Internal pressure to improve as the main goal of QA design seems to be a factor that promotes a successful review process, while the external accreditation can be a secondary goal that is also kept in mind when designing the system.

Block B showed that the medical schools tended to have a wider range of quality indicators than the training centres, which focused mostly only on the training

quality. Although the medical schools as successful reviewers shared more quality indicators, this does not necessarily mean a more successful review process as there may not be enough resources to process the information collected. Looking at the QAS procedures, the case studies showed that successful reviewers use a wide range of data collection methods ranging from more formal data collection like staff performance reviews, environmental risk analysis, and feedback questionnaires for various actors, to more informal oral feedback, especially within smaller institutions and institutional units

Involving too few respondents in the hospital training centres was seen as a constraining factor because the medical department's needs are not considered. This was expressed in the interviews when the training centres were not aware of whether their training activities have improved the skills of students, and of how the acquired skills and knowledge are utilised once the learners are back at their workplace.

Varied output, using different ways of representing QA data, was also more prominent among the institutions that were more successful in the review process. The same goes for the regular distribution of data, in combination with discussion and interpretation of the data, which were present amongst the institutions with a more successful review process. When distributing data to external stakeholders (potential students, employers etc.) the institution's web site was considered a successful medium. It was stated that a fully developed QAS asks much time and effort from the QA staff, while a good balance is required in order not to overload teaching staff and other stakeholders.

Looking at Block C, the implementation process of the QA, user training might be a factor supporting the QA process, especially in larger institutions with a more complex QA system. It is however too early to draw conclusions about the impact of this factor. Regarding the promotion of user participation, the most successful reviewers have involved their staff in the QAS the most. Although it is uncertain whether differences result from the different structure of the organisations (for example, the need for involving hospital staff was pointed out at the hospital training centres), the lack of user participation can be seen as a constraining factor. Monitoring activities were in place in all institutions. They were more formal and regulated in larger institutions, and more informal and less regulated in the training centres. Extra resources for QA implementation seem to promote the implementation of QASs, especially when these resources are targeted towards hiring staff to work specifically on the QA.

As for the institutions' organisational features (Block D), all institutions believed that there was a pressure to improve, influenced not so much from the external factors of accreditation or competition but much more from the staff and the learners themselves. There was no straightforward relationship between this organisational feature and successful review, but it is very likely that the pressure to improve is a prerequisite for a successful review process. Also, a positive innovative attitude on the part of the staff is important. Successful QA processes are more difficult in case of teaching staff who regard implementing a QAS as an administrative burden not related to their everyday work (as did happen in one of the less successful reviewer institutions). All institutions considered themselves learning- and

innovation-enriched organisations. The issue seemed to be whether staff felt they were appreciated for their innovation initiatives.

It was difficult to assess whether several of the factors contributed to a successful review process. This might be because some QA activities have been implemented only very recently and it is hard to see the results of this yet. Furthermore, it might be because of the different nature of the medical schools and training centres, which have implemented their QASs to a different extent due to the structure and aims of the organisations. To confirm the promoting or constraining impact of these factors, a further study is needed in other VET institutions which preferably have had QA processes in place for several years.

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Chapter 7
Factors Influencing the Use of Quality Assurance Data in Italian (I)VET for the Health Care Sector

Giorgio Allulli and Ismene Tramontano

7.1 The Italian Context of Quality Assurance in (I)VET

7.1.1 Structure and Organisation of Italian (I)VET

The Italian initial Vocational Education and Training system may be divided into two main areas:

- vocational education provided within the educational system, for which the Ministry of Education is responsible;
- vocational training provided outside the educational system and linked more closely with the working world, for which the Regional Authorities are responsible.

The Regional Authorities are also responsible for the continuing training of workers. Only in recent years, however, has continuing training acquired the status of an autonomous system. Many continuing training schemes are organised independently by private enterprises and by public administrations for their own employees without Regional involvement. The school leaving age is now fixed at 16 years (law no. 296/2006). Furthermore, from 16 to 18 years young people are compelled to complete their qualifications either within the school system, through full-time vocational training or through apprenticeships. Italian education and training provision is generally characterised by a growing process of decentralisation.

(a1) The State Education System Within the school system, which is managed by the Ministry of Education, vocational education courses are available at upper-secondary level, following the period of basic education (five years of primary school plus three years of junior secondary school). Vocational education is attended by young people aged from 14 to 17–19 years and it offers them full-time courses

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lasting from three to five years. Following a three year period, which leads to the first qualification, two year post-qualification courses lead to a national upper secondary diploma, which is valid for University entry. The schools which offer initial vocational education courses are mainly vocational schools and art institutes.

Since 1998, post-secondary courses have been created to train higher technical profiles (IFTS, which is an Italian acronym for Higher Technical Training and Education Courses); these courses are managed in partnership between schools, vocational training centres, universities and enterprises. IFTSs are financed jointly by the Ministry of Education and the Regional Authorities.

(a2) The Regional Initial Vocational Training (IVT) System The provision of IVT is managed by the Regional Authorities, which every year draw up a Plan of Training Supply. The plan is based on assessments and surveys of training needs, and the requirements expressed by the different regional areas. An increasingly important role is also played by the Provincial Authorities which are entrusted by the Regional Authorities with some of the management functions. The Regional Authorities have gradually diversified their VET provision. Consequently, the earlier system of supply, which resembled the school model and hinged on courses for 14–16 year olds, has given way to a more flexible model of action for diversified target audiences. Therefore, Regional Initial Vocational Training includes many types of schemes:

- first level three year Vocational Education and Training courses for young people who have completed their basic education;
- second and third level vocational training for young upper secondary school leavers and graduates;
- training for people at risk of exclusion (disabled, migrants, nomads, persons subject to probation orders etc., former drug addicts and women);
- training for apprenticeship. Since 2003 there are three types of apprenticeship:
  - apprenticeships for 16 to 18 year olds, to complete the compulsory school and training period;
  - apprenticeships for 18 to 29 year olds, to obtain a basic qualification;
  - apprenticeship for 18 to 29 year olds, to obtain a diploma or university degree.

It should be noted that the provision of training activities is usually funded by public calls for tender, and public establishments and accredited private organisations may participate. Those which are successful must sign an agreement with the Regional/Provincial Authorities concerned. There are no national curricula and regional governments award the qualifications. However, Italy is at the beginning of a process of setting national standards.

(a3) The Regional Continuous Vocational Training (CVT) System Continuous training is the responsibility of the Regional Authorities, which organise courses for unemployed workers and those in employment but who are, for different reasons, at risk of unemployment. In 2003 Intersectoral Funds were established, with the participation of the Social Partners, who manage the finances derived from workers' salaries (30% of the salary), to provide continuous training for enterprises.

The Funds are now rapidly growing, and currently finance continuous training for almost six million workers. Continuous vocational training activities are also directly organised by the Public Administration, by the Chambers of Commerce and by the enterprises which finance training for their own employees. The vocational continuous training system finances the following activities:

- continuous training activities organised by enterprises for their own employees and delivered internally, or by external training facilities;
- continuous training activities carried out by training bodies, trade unions, trade associations for employees of one or more enterprises taking part in the project or for workers with mobility status or receiving redundancy pay;
- individual training projects, financed by using vouchers.

The mechanisms for the distribution of funds allocated to CVT are generally the same as for IVT. Briefly, the system is based on calls for tender; the projects submitted by organisations accredited by Regional Authorities are evaluated and ranked. Projects are financed according to their place in the ranking until the budget is depleted.

7.1.2 Reasons for Evaluation and Quality Assurance in Italian VET

(b1) The School System (Vocational Schools Included): The delivery of school provision has always been under the control of the Ministry of Education, but this control is very bureaucratic and is focused on the inputs (teacher qualification, adherence to the rules, etc.). There is no common framework for output evaluation nor for evaluation of the quality of the provision. Inspectors have generally been used to tackle administrative and legal controversies, occasionally for innovation design, but rarely for evaluation of innovative projects.

In recent years Italian schools have become more autonomous; they are subjected to less formal control, and they are encouraged to be more aware of the results of their activities. Nevertheless Italian schools are not formally obliged to organise a Quality Assurance System (QAS). However, the importance of the aims and methods of Quality Assurance (QA) is recognised by many schools, although the approaches remain very diversified, often linked to local situations. Most schools organise self-assessment activities but these are without external result monitoring. Currently school self-assessment is voluntary, carried out by the teachers' assembly, or by a smaller group of teachers (rarely in cooperation with external experts or parents) coordinated by the School Headmaster (Dirigente Scolastico) referring also to the internal Plan of School Activities (Piano dell'Offerta Formativa-POF). Some schools have autonomously organised networks with other schools to exchange quality assessment methodologies. ISFOL has tested and is currently disseminating a *Guide for Self-Assessment*, largely based on the work done by the Technical Working Group on Quality in VET, contextualised to the Italian system.

(b2) The VET System managed by regional governments, has developed an accreditation system for providers, which apply to receive regional financing.

A Decree approved by the Ministry of Labour in 2001 (Decree n. 166/2001), introduced *the accreditation system for VET providers finance by the Regional Authorities* which comprise compulsory minimum requirements defined at national level with the co-operation of all parties concerned. Regional governments have implemented this system in recent years.

Main quality areas include the following:

- Management of the institution;
- Financial situation;
- Characteristics of teaching and administrative staff;
- Efficiency and effectiveness of previous activities;
- Links and contacts at local level.

For each of these five areas, indicators (variables to measure and assess), parameters (phenomena to observe), and indices (minimum thresholds of the phenomena) are set at national level. The possession of ISO certification is equivalent to the possession of the requisites for passing the first three criteria.

One criterion (Efficiency and effectiveness of previous activities) *is* linked to the definition of performance targets, which the training provider must achieve. The parameters and indicators, set at national level for this criterion, state that training providers, in order to receive accreditation, must show that on completion of the courses:

- at least 70% of pupils obtain the qualification;
- a certain percentage of pupils (to be established based on the regional labour market) obtain employment or return to school;
- at least the 60% of users/operators/final beneficiaries express a positive opinion.

To be accredited, and to maintain accreditation, VET providers must demonstrate that they meet these requirements. Therefore training providers, which apply for regional funds to provide Initial or Continuing Training, must be accredited. The accreditation rules do not compel providers to have an internal or external Quality Assurance System, but strongly encourage them to obtain certification according to ISO 9000 norms. Some Regional Authorities require providers to be certified. Even schools, which occasionally apply for regional funding in order to offer specific training activities beyond their ordinary activities, must be accredited.

7.1.3 External and Internal Evaluation and Quality Assurance in Italian VET

(c1) The School System (Vocational Schools Included): The last law which reformed the entire educational system (law n. 53/2003) also established the National Evaluation System, which is mainly the responsibility of the National Institute for the Evaluation of School System (INVALSI). Until 2006 INVALSI every year organised national testing of all Italian pupils at 4 different grades in

three basic subjects (Italian, Maths, Science). In 2007 only a sample of pupils was tested. There is no external school evaluation system. Only in the Province of Trento, which has a special status, is this activity currently being organised.

The awareness of the importance of the aims and methods of Quality Assurance has largely increased at school level. But approaches are very different, depending on local situations: headmasters and teachers availability and commitment, the local cultural climate, social and economic background, information on QA, and the model of QA chosen by the local actors. Some schools have recently adopted the ISO 9001:2000 QAS, but most schools and teachers prefer a more pedagogical approach, and are very suspicious of a TQM (Total Quality Management) culture, perceived as being too market/business oriented. It is possible to say, however, that awareness is spreading. The trend towards greater school autonomy, reinforced by the constitutional reform of 2001, weakens the role of the State in introducing innovative processes based on a national model.

In the Health sector, examined here, some of the schools have recently adopted the ISO 9001:2000 QAS, and others are inclined to do likewise, but this trend is not ubiquitously supported. Many schools prefer to remain linked to a pedagogical approach, focused on the improvement of the teaching–learning relationship.

(c2) The VET System: Managed by regional governments, a formal system of evaluation is still lacking, although Regional planning takes account of the results achieved in the past. Surveys at Regional level are usually based on pupil employment and on completion of VET courses. The European Social Fund (ESF), which finances most of the Regional VET activities, demands that every Region nominates an Independent Evaluator, who monitors the regional activity funded by the ESF every year. This Independent Evaluator is chosen through public selection, and is usually a private agency. The annual evaluation report analyses the development of the Regional Program funded by the ESF, and verifies the achievement of the objectives stated by the Region.

Regional authorities have now implemented the accreditation system. For the first application of the law some Regions, pending the possibility of tightening controls, preferred to adopt broader criteria, accrediting a wider number of training providers; therefore the first calculation of accredited training providers totalled 10,000. In the future this number should be reduced. Regarding certification, this quality approach is quite common, since more than 50% of vocational training centres are certified according to ISO norms. There are many different applications of ISO procedures at regional level. In some Regions, in order to be accredited, it is necessary to have achieved ISO certification.

7.2 The Results of the Case Studies

7.2.1 Introduction

Currently, in only very few Italian schools the concept of “quality” is based on a plurality of dimensions and factors: the pedagogical approach remains the dominant

one. The trend towards greater autonomy for each school, reinforced by the recent constitutional reform (2001), weakens the role of the central government in introducing innovative processes based on a national model. For this reason widespread networks of local informal (or locally formalised) QAS practices, are currently growing faster than a centralised model. A general need exists for the establishment of a platform of national indicators to benchmark the results achieved in the field of QA.

In this study case studies were carried out in five vocational State schools (Istituti Professionali di Stato per l'Industria e l'Artigianato) for opticians and dental technicians. The pupils attending ordinary courses were between 14 and 19 years old. The schools were selected on the basis of the geographical location (North, Middle, South of Italy) and on the basis of information available from the Ministry of Education about their involvement in Quality Assurance practice. The average school size was between six hundred and one thousand pupils; one institute was accredited by its Regional government as also providing vocational training. Schools were not subjected to any external evaluation conducted by inspectors.

7.2.1.1 Data Collection

Information and data on QA management in the five schools were collected by studying the official documents released by the Institutes and through interviews conducted with the staff (teachers, Quality Assurance coordinators and managers) and pupils in each of the five schools. The teachers in the five schools contacted readily gave their consent to be interviewed, being interested in this issue.

7.2.1.2 QA Systems Used in the Case Study Schools

Various types of Quality Assurance Systems are used in Italian schools. Three of the five case study schools had developed their own QAS model. For these schools, the main goal was the improvement of all processes, with special attention to pedagogical features. In these cases, the "planning by objectives model" had been adopted. The implementation of the initial design was based on the ongoing evaluation activity, managed by the Evaluation Commission, with regard to the effectiveness of the means used. Pupils' opinions were also taken into account. Low standardisation and high flexibility are the features of these QA models. In the other two schools, whose QA experience was more consolidated, the "prototyping model" was assumed. The standardisation required by the ISO 9001:2000 QAS was maintained, but more significance was given to the interaction with stakeholders.

7.2.2 Ranking the Italian Vocational Education and Training Institutions

Following the approach of the REVIMP project, the five institutions were ranked on the basis of the degree to which collected QA data were actually utilised in the

improvement of the quality of the institution. The researchers ranked the institutions as follows:

(1) White school
(2) Yellow school
(3) Red school
(4) Green school
(5) Blue school

Within the Italian context, it was not easy to make a ranking from 1 to 5. Relying on the interviews, it was found that the first two schools (White and Yellow) were the most active in terms of data collection and translating these data into improvement activities. In the other schools some QA actions were observed: the schools ranked third and fourth (Red and Green) showed a good level of attention and commitment to the quality issues, and they had developed some tools. The Blue school (ranked fifth) had just introduced a formal QA system, but it was too early to see results. However, in the last three schools the utilisation of QA data appeared to be fairly limited.

7.2.3 The Factors from the Theoretical Framework Enabling or Constraining Review in the IVET Institutions Studied

Block A: The Design Process

7.2.3.1 Who Designed the QAS and How?

Three schools applied an internally developed QA model, while the White and the Blue schools adopted the ISO 9000 QAS. In the White school the QAS has been applied since 2002 and it has been fully developed, while in the Blue school ISO 9000 was introduced only recently, without real commitment and mainly for external reasons. Within the school ranked second (Yellow), a local QAS model was designed and had been implemented by the teachers since 1996. Their QA design was – and is – strictly linked to the pedagogical process. The school appears not to be interested in adopting a formal QAS such as ISO 9000, or EFQM. The other two schools (Red and Green) also appear not to be interested in adopting a formal QAS, but they have some internally developed tools, such as questionnaires, tests, and pupils' observation sheets etc. The difference between the schools may be explained not by the internal or external model, but by teachers' involvement in the decision to adopt a QAS, and their involvement in planning the new model or adapting the existing one.

7.2.3.2 Design Goal: Improvement, Accountability or Certification

In the first school (White) all three goals (improvement, accountability and certification) were considered to be reasons to introduce a QAS. The locally developed

QAS was perceived by three schools (Yellow, Red and Green) primarily as a way to enhance the improvement of learning results. In one case (Blue school) the adoption of the ISO QAS was strictly linked to extrinsic reasons (i.e. the opportunity to increase the number of courses and adult students receiving certification). Therefore, improving the organisation and the learning results appear to be the most important and motivating goals in four of the five schools, and the most effective lever for assuring a significant change.

In this block, the main factors which appeared to influence QA, in terms of the utilisation of QA data, were the following:

	Factor
Enabling	Design goal(s)
Constraining	Standardisation/Flexibility

The involvement of teachers in the QAS design process was the main enabling factor, since the improvement of educational results was the main goal. The adoption of a standardised QA model without the direct involvement of the teachers was, on the contrary, a constraining factor.

Block B: QA System Features

7.2.3.3 Quality Indicators

In three schools (Green, Red and Yellow) the adopted QASs were locally developed. In these cases a clear predominance was given to the Quality of learning results, and the teachers were quite involved. In the Blue school, the ISO 9000 QAS had been recently adopted, in order to enlarge the variety of the school activities (a formal certification was required to secure regional funding). In this school the QAS was not yet clear to all teachers, and a permanent aid from the staff (10 members) was required. Information was accessible only to the QAS work group. The richest series of indicators and descriptors was developed in the White school, including documentation, unexpected event management, inspection management, prevention management, customer satisfaction, job security management, marketing, teaching design, school offer, classroom organisation, textbooks, school timetable, pupil logistics, classroom activities management, pupils team evaluation (7 areas), non-curricular activities, study visits, facilities management, information management, joint activities management, personnel (non-teaching) management, provisioning, executive services, administrative services, library management, measures and statistics.

7.2.3.4 Data Collection Methods

The schools used different methods and tools to collect data. Four of the five schools developed most of the instruments independently. The quantitative data collection methods used most frequently were:

- Pupils satisfaction questionnaires (Blue, White and, Yellow schools).
- Pupils performance test (All).
- Monitoring the use of laboratories (White school).
- Efficiency controls (White school).
- Pupil behaviour observation sheets (Yellow and Red schools).
- Interdisciplinary rate (Red school).

Regarding the qualitative methods, the debate on school quality was always conducted within formal meetings of the different school boards: the general administration board, teachers' assembly and class councils. These debates were mostly linked to learning results.

7.2.3.5 Respondents

Few internal stakeholders (usually the headmaster and the QAS coordinator) were always involved in all the processes. Pupils were generally involved only when their performances were tested. External stakeholders were not involved, though in the Yellow school the opinion of local employers (dental sector) was taken into account.

7.2.3.6 Data Processing

Data and questionnaires were always processed by the coordinator and his staff within the individual schools. Only in the case of the Blue school was external support needed.

7.2.3.7 Output

The main output was a series of tests on pupils' performances. Comparisons with final pupil results achieved in previous years were made by all schools. Continuing monitoring and comparison, however, was performed only by the White and Yellow schools. In the White school all the output was available to all the teachers.

7.2.3.8 Data Distribution and Discussion

In three schools (Blue, Red and Green) information was restricted to the QAS staff and to the teachers most involved in QAS procedures. In two schools (White and Yellow) all the teachers were informed. Data were discussed by the teachers in internal meetings with the QAS working group. The headmaster's role was always crucial to the distribution of information. Parents were sometimes informed (Green and White schools).

7.2.3.9 Publication of Data

Only two schools (Green and White) published all the data, but only the Green school published all results on the website.

7.2.3.10 Validity of the Information

All schools stated the validity of the specific data concerning learning results. Only one school (White), however, stated the full validity of the data as a whole, with regard to the Quality of the various school services and features.

7.2.3.11 Clarity of the Information

All schools stated that information was clear and easy to use for almost all the teachers (70% for Green school), but not for the pupils (60% White school, 40% Yellow school, less in other schools).

7.2.3.12 Staff Effort Required

In all five schools a relevant effort was required for the QAS coordinator and his staff, whose work was not adequately rewarded. Only in two cases (White and Yellow schools) was the QAS coordinator exempted from ordinary teaching work. Time available to the coordinator appeared to be an important factor in enabling (or constraining, if lacking) correct QAS implementation.

7.2.3.13 Goal of Using the QAS

Headmasters and teachers were generally aware of the usefulness of QA in the improvement of the teaching/learning processes and results. Only in one case (White school) was QAS considered useful for all aspects of schools life: organisation, teaching, laboratories and efficiency. This position has been found to promote a better utilisation of the QAS.

7.2.3.14 Extent of Problem Solving Support

Permanent technical support was generally expected by the teachers from the QAS coordinator and his staff. No external support was required.

In this block the main factors appearing to influence QA in terms of the utilisation of QA data were the following:

	Factor
Enabling	Valid information Accessible information/support in usage
Constraining	School staff effort

Transparency of the QA means and aims, a permanent support for the use and the distribution of all the results among all the teachers were the main enabling factors; while the little time available for the QAS coordinator and his staff was found to be the main constraining factor.

Block C: The Implementation Process

7.2.3.15 User Training and Implementation Support

All the schools stated that user training was a valid support for QAS implementation, but in only two schools (White and Yellow) had all the personnel been trained. In the other schools only a minority had been trained: 10 people in the Blue, five in the Red and 30 in the Green school, out of a total of 120–150 employees. Therefore, it is correct to refer to "implementation" only when the QA information is sufficiently disseminated, and the goal of implementation is clearly achieved by the school. In this study these conditions were found only in the White and Yellow schools. In the other three schools either the QA experience was very recent (Blue), or it was restricted to a minority of teachers (Green and Red).

7.2.3.16 Promotion of User Participation

In one case (Blue school) the QAS had been introduced only very recently (October 2005). The work group (10 members) participated intensively, but the other teachers were less involved. Also in two other schools (Green and Red) only a minority of the teachers was fully involved. Researchers found a full involvement of all users in only two schools: White school whose QAS was based on ISO 9001 since 2002, and Yellow school whose QAS was based on an autonomous local project, since 1996. In both schools all the teachers were involved in the QA enterprise, though the White school's approach was broader.

7.2.3.17 Monitoring Implementation Consistency and Effects

In one case (Blue school) monitoring concerned the first application of the QAS (ISO 9001:2000). In two other schools (Green and Red) implementation was pursued, but not formally monitored. In the two highest ranking cases, monitoring was more effective. In the White school, internal monitoring was run by the management (twice a year), external annual monitoring came from ISO 9001 and a general revision every three years was scheduled. In the Yellow school, the processes were monitored and a general revision occurred in 2003, based on monitoring.

7.2.3.18 Availability of Extra Innovation Resources

No extra resources were used by the Blue, Red and Yellow schools. Some economic help was given to the Green school using the European Social Fund (which was crucial for initiating the QAS). In the White school 25% of the QAS budget came from the Province of Milan. Only in two cases (White and Yellow schools) were the QAS coordinators freed from ordinary teaching work; the extra work undertaken for QA outside of teaching time was not rewarded. Therefore the ordinary teachers were quite dissatisfied with the extra workload they had to undertake e.g. completing questionnaires, sheets, etc.

In this block the main factors which appeared to influence QA in terms of the utilisation of QA data were the following:

	Factor
Enabling	Tailored user-training and school support Monitoring implementation consistency and effects
Constraining	Promote user participation Extra change resources

Training of all personnel (not only teachers) and the permanent monitoring of QAS procedures and results appeared to be the main enabling factors. Teachers not directly involved in the QA process, and the lack of financial resources appeared to be the main constraining factors

Block D: School Organisation Characteristics

7.2.3.19 Performance Level

The only performance level generally taken into account and available in all schools was the pupils' performances in different subjects. Only in one case (White school) was it possible to find a broader, multidimensional approach to Quality.

7.2.3.20 Pressure to Improve

In all the schools the QAs were initiated by the headmasters, who decided on their features. Therefore in some cases (Green and Red schools), the role of the headmaster remained crucial in order to enhance participation, collaboration, exchange of information and innovation. The schools behaved as a learning organisation only under pressure from the headmaster. In two other cases (White and Yellow schools) the QA culture was deeper and shared, and the respective QASs were part of normal school life. In the Blue school, where the ISO 9001 based QAS was initiated in October 2005, teachers showed individual interest in innovation, but it was too early to say if they would act as a learning team. In none of the five schools examined was there an explicit external pressure aimed at introducing a QAS, but in the White school a sort of environmental expectation toward improved quality was observed, while in the Yellow school a request came from the dental laboratories to improve the technical skills of pupils. These informal external expectations seem to have positively influenced the QAS development.

7.2.3.21 Attitude Towards QA

In the Blue school motivation was linked to new work opportunities for teachers, arising from the increase in school VET activities. Only some teachers in the

Green school (50%) and the Yellow school (60%) felt really interested and motivated. In the Red school the motivation was high amongst the QAS Staff, and it was fair amongst other teachers. In the White school 80% of all personnel felt motivated.

The QAS was more successful in the White schools, where the percentage of motivated personnel was higher. The researchers found a clear correlation between positive attitude toward QA and an enhanced QAS implementation.

7.2.3.22 Learning, Innovation-Enriched Organisation

In two cases (White and Yellow schools) the QA culture was largely shared, and the organisations had been consequently modified. In the other three schools the QAS largely depended on the impulse coming from the headmaster: teachers followed, but they did not act as a "learning organisation".

7.2.3.23 High Reliability School

In general, all the respondents judged the reliability of their organisation positively, though in three cases (Green, Red and Yellow schools) reliability referred mainly to educational processes and learning results. In the White school the reliability appeared to be higher and broader because all school activities were coordinated on the basis of the adopted QAS. The search for higher reliability is an important factor in the implementation and utilisation of QA data, but it should not be said to be decisive as the attitude toward QA and innovation capacity appear to be more critical.

In this block the main factors appearing to influence QA in terms of the utilisation of QA data were the following:

	Factor
Enabling	Innovation attitude school staff Innovation capacity
Constraining	Allocation of extra resources

The impulse from innovative headmasters was crucial, as was the positive attitude of school staff. The lack of extra resources aimed at improving and better rewarding the work of the QAS coordinator and staff appeared to be the main constraining factor.

Block E: Use of QAS

In all cases, the utilisation of QA data was instrumental, strictly aimed at specific goals (improving the general functioning, certification etc.). Only in the White school was the adoption of a QAS linked to a broader approach. However, though

instrumental, the utilisation of QA data did promote more cooperation between teachers, and some of these reached a good level of competence as coordinators. In the two highest ranked schools (White and Yellow), the use of a QAS was generalised and was considered a normal procedure, almost routine. Perhaps the curiosity and the motivation to use the QAS was greater in the other three schools which had adopted it more recently, though for a more restricted range of aims and involving a minority of the teachers.

Block F: (Un)intended Effects

In general, all schools appeared to be interested in QA methods and tools (the White and Yellow schools to the greatest extent). Most of the (un)intended effects could not be linked with certainty solely to the introduction of a QAS in the schools (this was also true for the drop-out ratio, pupil employment and pupil achievement) as many other variables may also have influenced these phenomena. Some results, on the contrary, can be linked with certainty to the adopted QASs: higher employers' satisfaction (White and Yellow schools), improved learning programs (Yellow school), improved teaching (Red school), and pupil achievement (Green school, though not for all the teachers). An unintended negative effect was the teacher dissatisfaction with the extra workload originating from the introduction of the QAS in the school. QA staff felt poorly rewarded. In fact, the QA coordinator is a highly skilled professional; however, he was not recognised as a specialist. In other words, some of the best people are not encouraged much to invest in QA.

7.3 Conclusions

In general, the recent trend of an increasing adoption of formal QASs, based on ISO 9001:2000, especially in Northern Italy, may be explained by an extrinsic motivation: the requirement that State schools must have regional accreditation to manage regional VET courses and funds. In only a few cases to date, has the introduction of a formal QAS such as ISO 9000 fully involved the ordinary courses (as is the case in the White school).

On the other hand, a great number of informal QASs have been developed by schools, often as a structural part of the school offer. In the current study this was the case in three of the five schools (Red, Yellow and Green), though the Green school is oriented towards adopting a locally adapted version of ISO 9000 QAS. The search for Quality has been encouraged by the Ministry since 1995, and a national plan was carried out ("Progetto Qualità"), however this was not compulsory for schools, and was not based on a national model. This flexibility encouraged the diffusion of a QA culture, though it has been interpreted locally in many different ways. Many teachers think that a more centralised strategy would be less effective. Therefore, if the extrinsic motivation for initiating QASs is not taken into account, this study confirms that the most relevant factor promoting the development of a Quality approach

in Italian schools is the positive attitude of the teachers toward the improvement of pupil achievement. Also, the availability of rich, accessible information, concerning a great series of interrelated data, is an important condition for the success of QA.

The study shows that the involvement of all teachers in QA training programmes, and not only the QA staff, is an important factor for the general improvement of the QAS; at the same time this approach prevents delegating the QA matters only to the "specialists" (coordinator and QA staff).

Regarding the gathering of valid QA data, the schools in this investigation were considered to have exerted a great effort in order to produce a broad range of clear indicators. The White school, for example, had a series of computerised data concerning 26 different procedures (listed above in Block B), and all these data could be correlated.

The results of this study show that in Italy any centralised strategy, though well designed, would be ineffective without strong support from the periphery as schools, teachers and headmasters protect their autonomy, and ask to be involved in any innovation. Therefore, the key words for future QA development in Italy are "participation" "flexibility" and "training". For this reason, the considered opinion of the authors is that it would be better to promote a widespread network of local informal (or locally formalised) QASs rather than attempting to impose a centralised model.

As a whole, the main factors that appear to influence the utilisation of QA data are the following:

	Factor
Enabling	Design goal(s)
	Valid information
	Accessible information/support in usage
	Tailored user-training and school support
	Monitoring implementation consistency and effects
	Innovation attitude of school staff
	Innovation capacity
Constraining	Standardisation/Flexibility
	School staff effort
	Promote user participation
	Extra change resources
	Allocation of extra resources

On the basis of the results gathered in the field, it may be asserted that the QASs can be effective instruments for improvement, though many different factors may influence local outcomes.

The first finding, relating to Blocks A and B, is that teachers use research information and instruments only if they are involved in the design of the adopted QAS. Therefore, whatever the chosen model (internal-autonomous or external-centralised), it is crucial that teachers participate in the design of the QAS, and/or (or if external) its implementation. In the Italian context (State Vocational Schools),

another decisive factor is the positive attitude of the headmaster. A platform of national indicators to benchmark the results achieved in the field of QA is considered useful, but not imperative. This study showed that any model for QA – formal or informal, centralised or autonomous – is effective only when it interacts with local needs and expectations.

A second finding, relating to Blocks C and D, is that training a large number of teachers (perhaps even all) is very important in order to minimise the risk of Quality matters being delegated to a small group of specialised teachers. Training activities are crucial for the implementation process.

This study proved that the availability of rich, accessible information, concerning a vast series of interrelated data, is a primary condition for the successful use of QA. Ongoing and final evaluation activities, also taking into account pupils' opinions, concerning the effectiveness of the instruments used, is deemed central. And finally, internal evaluation appears to be more significant than external assessment.

Chapter 8
Factors Influencing the Use of Quality Assurance Data in German (I)VET for the Health Care Sector

Lars Heinemann and Ludger Deitmer

8.1 The German Context of Quality Assurance in (I)VET

8.1.1 Basic Organisation of the German VET System

In Germany, VET is mainly organised according to the 'Dual System', meshing theoretical education at school and practical instruction at the workplace. Dual apprenticeships in Germany exist in nearly all branches of the economy including the professions and parts of the civil service. Every year, about 600,000 adolescents enter the dual system (for figures see Bundesministerium für Bildung und Forschung 2007: 11). All in all, more than 1.8 million young people – with a female share of 41.5% – are learning their trades through the Dual System.

Apprentices come from different educational backgrounds although most have at least an intermediate or lower secondary school certificate. About 17% of all people beginning an apprenticeship in 2006 had been entitled to go to university as well (BMBF 2007: 104).

The German Dual System is primarily an *alternating* training structure – which means that training takes place in a company providing the apprenticeship as well as in a compulsory vocational part-time school (which accounts for one to two days of the weekly training provision). This alternating structure aims at combining two guiding principles genuine to VET in its German interpretation.

First, VET is seen as an *education*, comprising not only skills and capacities, but the idea of education being part of a developmental process leading to an autonomous individual (Brown and Evans 1994). In 1991, this idea was specified by the Standing Conference of the *Länder*'s ministers of education as 'being able to be actively involved in shaping the world of work in social and ecological responsibility'. Curricula of German VET schools have to address this aim.

Second, the German system is rooted in an 'occupation orientated', or genuine 'vocational' training culture; vocationalism in the German meaning of the term

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stands for integral qualifications based on uniform training schemes and highly standardised examination procedures (Benner 1977). This vocationalism implies that training is indeed *workplace-led and predominantly practical*, by stressing the importance of work experience during the training period. The system works in accordance with skill requirements defined 'around the workplace' (Harney 1985; Deissinger 1998). This idea led to the introduction of *Lernfelder* ('learning areas')[1] into the VET school curricula. Learning no longer shall be organised along school subjects, but broader fields that in turn are rooted in the occupations themselves (Deitmer and Heinemann 2008).

In terms of organisational structure, the school part of the Dual System is determined by the involvement of the federal and state administration which makes occupational standards and conditions of skilled apprenticeship legally enforceable as well as marketable (Raggatt 1988). In Germany, education is in the solely responsibility of the federal *Länder*, which also means that curricula may vary considerably inside Germany between *Länder*. The part of VET carried out as in-company training falls under different legislation than the part carried out at school as it is first of all a legally binding work contract between a company and an apprentice.

Such an organisational structure automatically puts three challenges into the focus of attention. First, companies have to be 'educational' enough. One has to secure the pedagogical standards of on-the-job training. Secondly, the schools have to be 'vocational' enough; they have to address subjects that are meaningful in terms of the profession that the apprentices are about to acquire. Third, the relation between school and company must work. One has to secure that the apprentices are able to relate the different facts learned at school and workplace and to relate the different forms of knowledge (formal/informal).

Within this general structure, IVET for nursing shows some particular differences compared to other professions.

Unlike in many other European countries, nursing training is carried out as initial VET in Germany. But IVET for nurses is not part of the state VET system and can be understood as an in-company VET System (*Betriebsberufsschule*). The duality of learning places is organised within the hospital. Nursing students are normal employees of the hospital (state, local government or run by charities like the Churches, Red Cross etc.) and they work in the hospital as well as attending the hospital's nursing school.

Still, the organising principle is the same: students attend classes and carry out (paid) work in the hospital under guidance of experienced nurses (*Praxisanleiter*). These experienced nurses work as practical trainers or mentors to instruct, guide and coach the students while carrying out certain work tasks. As in the dual system, learning in these practical phases is centred around the idea of learning tasks. The courses at the VET school are carried out by experienced staff as well as by

[1]Learning areas follow a new curriculum concept in the German VET system. The main idea of this new approach is to reconstruct the curricula at schools in order to reflect actual work tasks and their context at school. Traditional school subjects are therefore transformed into cross-curricular approaches and organised into new patterns (Deitmer et al. 2003; Fischer and Bauer 2007; Sloane 2004).

external lecturers (doctors, psychologists, the hospitals' hygiene specialists, pharmacists etc.). The latter do not have to have any additional pedagogical qualification.

Students attend an IVET nursery school for three years. Unlike in the 'normal' VET system, the schools play a stronger role here. They provide roughly 50% of the instruction and are responsible for the exams.

At the moment, Germany has about 860 nursing schools. There is a trend to merge schools reducing the figure in the future considerably. This is based on the fact that the hospitals reduce the number of training places because of cost reduction and decreasing numbers of hospital beds (Blum 2006).

Recently, the regulations on VET in nursing have changed considerably. Instead of traditional teaching methods, now as in the whole VET system an orientation on *Lernfelder* (learning areas) is called for. Students work together in permanent groups, the curriculum aims at competences (not knowledge) and the learning objectives have been restructured. Now, students do not learn according to established school subjects (anatomy etc.), but in projects transcending the different subjects. For the teachers this means they have to work in groups, too – merging the different subjects into a comprehensive learning project. This also enforces closer cooperation between the ward and the school.

Because of financial pressures, the chance of getting a job in the hospitals after finishing VET will be considerably reduced in the next years. Exactly because clients will stay fewer days in hospital in the future, there is an emerging market of home care to counter this. The standing body negotiating the financing of hospitals agreed on huge reductions in the last five years, the calculation of financing no more depending on actual costs of the stay, but according to a lump sum per case. Consequently, the duration of clients' stays in hospitals has been reduced considerably, and the hospitals look for any possibility to reduce costs. This process is strengthened even more as hospitals are either communally owned (still the majority), where the towns try to spend less money on them, or are privatised (an ongoing trend). A consequence for the nursing schools is that they are seen more and more as a (relatively big) cost factor, even more so because in the next few years the hospitals will hire hardly any new staff and will instead reduce staffing.

8.1.2 Reasons for Quality Assurance in German VET

When discussing the introduction of measurable generalised standards in the school part of the Dual System, it should be noted that setting any standards is up to a highly complex – and often slow – negotiation process between the 16 federal states of Germany.

An integrated system of Quality Assurance for the whole Dual System is yet out of reach, as the practical part of the apprenticeship is partly ruled by federal legislation and partly under the competence of the companies or their associations. Developing a general system that reflects the ideas and interests of these different actors on quality still looks fairly impossible. Instead, Quality Assurance is developed in

a bottom-up approach: Vocational schools cooperate with different enterprises in working out alternatives for better integrating work and learning and looking for common approaches to measure quality.

Starting in the early 1990s, the German debate surrounding the quality of education and efficiency of the general education systems has been stirred up by the results of comparative international studies such as TIMSS, BIJU and PISA. The subsequent focus on output control is challenging the traditional predominance of input control in the German education system (see e.g. Specht 2002; Avenarius et al. 2003). By means of central guidelines and resources, input control intends to raise quality per se, with relatively little focus on systematic ex post analysis. In contrast, controlling the output of learning and teaching processes is organised along the lines of desired results and outcomes. One manifestation of this paradigm change is the introduction of educational standards for the VET schools which formulate the competences and skills to be acquired in the education process.

There are a number of Quality Assurance systems already in place for vocational training in the German speaking VET zone (Austria, Germany and Switzerland), the best known being QASs along the lines of DIN ISO 9000ff and EFQM (European Foundation of Quality Management) (Gonon et al. 1999; Dubs 2003). These two Quality Assurance systems have been developed in a context of business and economics and stress the importance of customer orientation and customer satisfaction. Here, Quality Assurance aims to ensure that customers actually receive the quality they expect. Consequently, in order to shape the operative process it is necessary to define the corresponding objectives and standards based on a concept of customer satisfaction.

While Quality Assurance in Germany has its roots in the sector of private enterprises, the public sector mainly used evaluations as an instrument to evaluate processes. For Germany, the methodological approach in the case of Quality Assurance is related more to business economics, while evaluation leans more on socio-scientific methods (Stockmann 2002).

This allowed a peculiar trend in using QASs in the German education system, using QASs focusing on pedagogical processes instead of solely relying on output control. This explains the relatively widespread use of approaches like EFQM or the Swiss-developed Q2E and QED (Quality through Evaluation and Development) in Germany.

This trend corresponds with the basic ideas behind the German VET system. Because ideas about education and vocationalism are strongly held, many schools object to industry-based Quality Assurance standards. Rather, they try to secure quality along the ‘classical’ lines of the German VET system: quality of instruction and quality of cooperation between schools and companies.

Regulations that made QASs obligatory for hospitals came into being mainly as the result of political pressure from the health insurers. Here, setting standards of quality serves different purposes. The hospitals try to measure their own quality in order to reach and maintain high standards as privatisation introduced market structures into this sector. Hospitals are now competing more and more against each other. A second aim is accountability towards the health insurance companies to be

able to successfully negotiate the funding. Additionally, quality standards and transparency of work serve as a means to be able to reduce costs without endangering vital processes. This background may be important for the way teachers at nursing schools perceive the introduction of the QAS, and the way they respond to it.

8.1.3 Forms of Quality Assurance in German VET

Quality Assurance systems that have been thought to fit the German needs have been tested in VET schools (not the companies) by using *Modellversuche* (pilot programmes that involve numerous schools) to find out what kind of effects they have. By now, it looks like there is some consensus on EFQM, and the Swiss Model Q2E is the one most favoured so far for introduction on a wider scale. Table 8.1 gives an overview of the main recent developments in introducing QAS mechanisms into vocational schools.

In general, the picture is rather complex as each of the 16 *Länder* follows a slightly different path when introducing QAS mechanisms. Moreover, the respective projects and programmes are in rather different stages. Some *Länder* already made decisions for introducing QAS systems in order to test the effects, but most are still at the stage of implementing QASs via pilot projects. So far, no common overall standards or guidelines for implementation have emerged.

For the nursing sector, the picture is slightly different as the schools are part of the hospitals and thus have to deal with the Quality Assurance systems in place there. The QAS mostly used in hospitals is KTQ (*Kooperation für Transparenz und Qualität im Gesundheitswesen* – Co-operation for quality and transparency in the health care sector).

When the laws regulating the health care sector in Germany required the certification under some form of QAS, the health insurers and the hospitals worked together on a system that was designed especially for hospitals, as the widely used DIN/ISO 9000 ff. were found to be oriented too much towards products and thus not suitable for hospitals. KTQ primarily aims at standards of caring and the transparency of the workflows. For hospitals belonging to the churches (still a big share of German hospitals), KTQ *proCumCert* was developed, which contains some additional standards derived from the Christian idea of Man. As well as other systems used by hospitals, KTQ does not aim directly at the nursing schools (e.g. pedagogical processes are not treated at all). Some nursing schools simply have to use the hospitals QAS as they are part of it, others object to take part in this certification process and rely on their own systems.

Most schools adopted feedback systems that may or may not count as a QA *system*. It is quite normal, that after the end of some learning project, students comment either verbally or by using a questionnaire on what they have learned, how they have learned it, what they could have done better etc. The results of these questionnaires or the verbal feedback then are discussed by the group of teachers responsible for the learning project. Moreover, in order to facilitate what by all schools involved in this study was seen as the single most important challenge to quality – the interrelation

Table 8.1 Overview on QAS implementation in VET schools in the federal states of Germany (Source: Kurz 2006)

	Federal state	QAS	Projects	Sources
1	Baden-Württemberg	Q2E in connection with elements of EFQM (output indicators)	STEBS finalised QES in transition 15 colleges 2004 until 2007 QM and certification Transfer to all VET schools until 2010	www.oes-bw.de
2	Bayern	Internal self evaluation and external evaluation by QA Agency under test	All school forms overarching project Modus 21 Transition phase since 2004 44 schools Extension for 2003–2008 Topics; QAS lessons, PD, resource management, networking	www.km.bayern.de/KM/schulentwicklung
3	Berlin	Commitment to QA §§ 8,9; school programmes with internal evaluation; support by external evaluation	Model pilot project semi autonomous schools 2003–2006 31 schools, within 9 VET colleges	http://www.senbjs.berlin.de/schule/projekte/mes/mes.pdf
4	Brandenburg	School programmes with internal evaluation, extension by external evaluation	MoSes 2003–2007 18 schools and 6 VET colleges	www.mbjs. brandenburg.de/sixcms/detail.
5	Bremen	Q2E and year planning under the frame of obligatory school programme development	ReBiz pilot project ‘Further developing vocational schools to regional vocational training centres’ 2002–2005 5 VET colleges transfer phase in progress	

Table 8.1 (continued)

	Federal state	QAS	Projects	Sources
6	Hamburg	External school inspection	ProReBes 2005–2007	Hamburger bildungsserver
7	Hessen	No fixed yet internal and external evaluation obligate Accountability	Self responsibility plus 2005–2008 10 VET colleges main issues: QAD; PD, resource management, local school networks	www.Modelle. bildung.hesen.de/ selbstveranstwoirlgung
8	Mecklenburg-Vorpommmern	Under planning		
9	Niedersachsen	EFQM School inspection	ProReKo 2003–2008 19 VET colleges main topics: course offering, QM, PD, Finance; school constitutions	www.proreko.de
10	Nordrhein-Westfalen	Autonomous school 2002–2008 278 schools, 30 VETs main fields: teaching and training developments, classroom teaching, QM resources management	School programme development with internal evaluation	www.selbstaendige-schule.nrw.de

Table 8.1 (continued)

	Federal state	QAS	Projects	Sources
11	Rheinland-Pfalz	142 schools 4 VET school specific BBs reform; BOS I & II	Commitment to QD School programmes with internal evaluation External evaluations	http://pes.bildung-rp.de
12	Saarland	Not yet placed in the field		www.bildung.saarland.de
13	Sachsen-Anhalt	Greater self responsibility by school laws § 26 sentences 1 until 6		
14	Sachsen			www.sn.schule.de
15	Schleswig-Holstein			www.rbz.lernnetz.de
16	Thüringen	Pilot project self responsible schools in Thüringen; starting phase		http://www.thueringen.de/de/tkm/schule/schulewesen/schuleentwicklung/evas/index.htm

between theoretical and practical parts of the education – some formal feedback is required. The practical trainers (*Praxisanleiter*) fill in forms on what the students learned on the hospital wards and the students fill in questionnaires on what they learned and how they experienced their stay.

Apart from this, a general model of Quality Assurance systems in German nursing schools has not yet emerged.

In general, the QAS culture in German nursing schools does not follow a benchmarking approach. Quality Assurance is seen as a task for the individual schools, and comparisons are not seen as helpful. For example, one of the schools studied voluntarily reserves some places for students who did not do that well at school; the idea being that they might become good nurses anyway. Obviously, benchmarking on the theoretical part of mid-term or final exams is seen as a possible threat to this policy.

General indicators are only used cautiously. Drop-out rates cannot work as an indicator as after a three-month period (*Probezeit*), the students (as is normal in the German dual system) have a contract with the school, are paid and have the right to stay the whole three years of their training period. There are some students who are told to leave after this three-month period because they are not meeting the occupational requirements. Overall, for the issues at stake in terms of school quality (learning processes, interrelation between school and practical phases), quantitative, comparative data was not regarded as giving any meaningful input. Staff never used direct comparisons with other schools as a basis for their judgement on their own school's quality, but rather analysed their internal quality.

Accordingly, the formal and informal data collected by means of a QAS (or the various formal and informal mechanisms used for Quality Assurance) is related to teaching and learning processes.

In all schools, the main challenges for quality – and thus: the main areas of use of quality measures – were:

- interaction between theory and practice (the single most important issue), more specifically, the interaction between teachers and the practical trainers on the hospital wards;
- interaction between teaching staff (co-ordination needed because of the *Lernfelder* approach, co-ordination between teachers and external lecturers);
- feedback from the students (teaching and learning processes, organisational features);
- feedback from and to individual students (learning problems, problems with work based learning within the practical phases).

In general, quality measures are content driven and strongly related to the improvement of teaching and training processes; they are defined within the practical challenges of organising VET in a dual system. These quality measures derive from the educational and professional intentions of the school. These intentions are partially prescribed in legislative frameworks like the new health care hospital training act which defines the interaction between theoretical and practical instruction

in terms of intensity and time, qualification of practical trainers etc. Others emerge from the schools' aim of providing and maintaining high educational standards.

8.2 Case Study Results

8.2.1 Introduction to the Case Studies

When taking our sample we looked for cases that contrast to get a broad picture of the different ways nursing schools are organised, owned and structured in Germany. As the schools in their overwhelming majority are part of one (or nowadays, because of the concentration processes: two, three or four) hospital(s), the form in which the hospital is organised is the factor that matters. Two schools in our sample (D, B) were communally owned, one run by the Catholic Church (C), one run by a red-cross sisterhood (E), and one by an independent academy (A).

Two schools are located in small towns (C, D), three in bigger cities (A, B, E). Three schools (C, D, and E) are rather small, comprising about 60–90 students. In terms of teaching staff, this means that core staff at these schools is rather small, only three to five teachers working there complemented by external lecturers. School B has about 120 students, school A 180. The number of teachers at these schools is six to eight, complemented by a considerably higher number of external lecturers. We found this to be an important factor in the use of Quality Assurance data (see below).

In each school, we conducted interviews with the heads of school and – if applicable – the person responsible for Quality Assurance. Furthermore, at each school we carried out interviews with core staff and students. In some schools, it was possible to get an even wider picture. In school B, for example, we were able to talk with staff from the wards carrying through the practical phases as well as with the hospital's general quality manager.

Nursing schools simply undergo the hospitals' QAS certification as they are part of it – or simply do not do this. Two schools in our sample (C and D) did not undergo the hospital's certification as it was seen that the hospital's QAS had almost nothing to do with important aspects of school quality.

Most schools in our sample adopted strong feedback systems. It is quite normal, that at the end of some learning project, students comment either verbally, or by using a questionnaire on what they learned, how they have learned it, what could have been done better etc. The results of these questionnaires or the verbal feedback then are discussed by the group of teachers responsible for the learning project.

Apart from the feedback questionnaires for the practical phases, a formal QAS was used in two cases (school B: KTQ, school E: ISO 9000), one school (school A) made extensive use of self-developed data sheets, while the last two relied more on informal ways of securing quality.

Our interview partners at the school working with an ISO 9000 system noted that such a QAS can help to lead to a process of clarification of structures and

processes – but only if the system allows strong participation of those ones who are concerned: the *teachers and students*. Following this position they adapted the system to their specific needs.

KTQ and ISO 9000, though, are certifications and not pre-developed QASs that provide a continuous flow of data. Both aim first at transparency of the 'work flow' at school and leave the concrete ways of data collecting as well as what data is collected to the schools.

The two cases using a formal QAS differed greatly. School B did undergo the KTQ certification process as part of the hospital. The main (and only) advantage here was seen as the certification process making the internal communication structures more transparent. Thus, the value of KTQ here was seen like Patton's utility value of evaluation: the very process of undergoing KTQ raised staff awareness for quality as being an important issue. Apart from this, no real consequences of the QAS were visible. The school using ISO 9000 did this for themselves. They transformed the ISO 9000 categories into categories that made sense for the school's idea of quality and they tried to organise the data they collected according to this end. Though, we had the very strong impression that this small school (3 teachers including the head) with highly motivated staff could have used any means of data collection to produce high quality. The ongoing process of improving the teaching quality as well as the interaction with the practical trainers relies mostly on informal means. The choice for ISO 9000 here has to be seen rather as a strategic one – to make their approach to quality visible in order to counter the risk of being merged with other schools.

This leads to another general aspect of QAS use in the nursing schools we analysed: its importance and visibility according to different groups of stakeholders. When we talked to the hospitals' quality managers, they tended to tell us about data collection, not about its use. Many teachers, though, were not aware of the extent to which quantitative data was collected in their schools. It is hard to judge whether this could be only a sign of a weak dissemination of the QA approaches in the school. It may well be that the teachers just concentrate on the kind of data that is more directly related to the quality of teaching and learning. For the students, it was often not quite clear if, or to what extent, the school was using the hospital's QAS (note that the standards provided e.g. by KTQ on nursing are a teaching subject at school). What mattered for them was that they were able to find open ears for their suggestions and/or complaints. Here, all schools have various measures that secure feedback.

In terms of the important points concerning school quality, we found the following measures being carried out:

1) *Interaction between theory and practice* The way teaching and training is practised in health care schools as well as on the hospital wards is regarded as a key element for guaranteeing the quality of the educational process. All our cases show that if this integration of the two training elements is not working well, qualifying competent nurses might be weakened.

Here the questionnaires the students have to fill in reflecting on their stay on the wards and their learning experiences give clear advice to guarantee the quality of

co-operation. They deliver information on possible weaknesses in the interaction of theoretical and practical learning between the teachers in the schools and the practical trainers on the hospital ward. The teachers analyse the questionnaires and discuss them with the students.

Moreover, in all schools teachers accompany the students: at some time (one to three times) during the practical blocks (duration between two weeks and two months) they visit the students on the ward asking how they are doing. In all schools, too, there are regular meetings (three monthly) between teachers and practical instructors, apart from the non-scheduled meetings in case something is seen as going wrong.

As the intensity of work has grown for the students, one school (D) has adopted the additional measure of doing learning projects on the ward during school time. As the students are not then in their practical phase, the danger of them being used more as a cheap workforce instead of training them is minimised. This same school protests strongly when they suspect treatments like this or any circumstances that hinder learning on the wards (the data from the questionnaires or informal talks to the students can be sources for such suspicions) and even achieved a substitution of one ward's management. They introduced a yearly trip of teachers and practical instructors as well, in order to meet and exchange views in an informal setting.

Another school (C) tackles the relationship between theoretical and practical instruction by having the students at school one day a week even during the practical phases. Thus, continuous feedback on the learning process as well as on possible problems for the students is secured.

The case of school A is unique insofar as they co-operate with a variety of different partners for the practical phases (four hospitals plus a variety of smaller institutions concerned e.g. with home care). Here again, regular meetings with practical instructors take place. Furthermore, we noticed a higher scrutiny in evaluating the students' questionnaires in order to react on possible problems concerning the quality of learning at these partners. If a practical partner is seen as insufficient in terms of teaching quality, this organisation is replaced.

Schools E and B rely mostly on students' questionnaires plus visits at the wards and on the short distance and personal contact between the wards and the practical trainers.

2) *Interaction between teaching staff* (co-ordination between teachers because of the *Lernfelder* approach, co-ordination between teachers and external lecturers and practical trainers)

Obviously, this point requires informal measures of co-ordinating various (2–5) teachers and external lecturers. This is done by one teacher organising the learning unit's structure and content. In all schools, it proved difficult to integrate the hospitals' doctors into this co-ordination process, as they reject the additional workload this would require.

In general, the results of this co-ordination were perceived differently depending on the status of the groups involved. While heads of school and quality managers all saw it as working quite well, teachers talked about some co-ordination problems

(notably with the external lecturers), and students frequently reported that they were taught the same subject from different angles instead of the holistic approach envisaged by the new curriculum. As the *Lernfelder* approach was introduced only two years ago, it is difficult to judge whether here some additional QA measures could be useful, or if it is still mostly a problem of acclimatisation.

3) *Feedback from the students* (teaching and learning processes, organisational features)

In all cases, heads of school, teachers and students had the feeling that feedback was running smoothly at their school. Every class had one or two speakers that met with the teaching staff on a regular basis (mostly bi-monthly). Apart from this, everyday problems were dealt with informally. Even reporting poor teaching was done individually and not via these formal meetings. In three cases, external lecturers – after having been given some chance to change their teaching attitudes – had been replaced because the teaching was found to be unsatisfactory by the students.

Additionally, in school A the teaching hours were changed to better fit the students' needs.

Practical training plans for the students (which describe key working and learning tasks of this occupational profile) are used as an additional means to support quality at all schools. These plans define all necessary information on how to act in the professional field. These extensive handbooks were written by the teachers in close communication with the mentors at the hospital wards. The practical training Handbook acts as a quality handbook as well (in terms of quality of work). This manual describes key tasks and provides practical information on how to carry them out. In the case of school B, QAS implementation stimulated the production of these Handbooks. During QAS implementation they were used to formulate the quality standards to be learned by the students.

4) *Feedback from and to individual students* (problems with learning, problems with the practical phases)

During the three month *Probezeit* (legally prescribed time when the school still can decide whether to keep a student or not), there is a regular meeting between staff and all individual students to discuss their status, their experiences, and their expectations. In all schools, this is done again in the third year, in school E additionally in the second year, too. Individual feedback is seen as important for the relation between instructions at school and wards (see above) and – obviously – in case some student has problems. This latter feedback normally is given by the main teacher of the class. Only at school D, students additionally elect a *Vertrauenslehrer* (teacher of confidence) for such situations.

8.2.2 Ranking the Institutions Studied

Because of the absence of outspoken Quality Assurance *systems*, we found it quite difficult to rank the different schools explicitly on their use of QA data as there is no common ground for this. In our cases, use of QA data is problem based, and more or

less actions undertaken may mean better or worse feedback systems, or that more or less problems occurred. When we heard about measures taken because of formal or informal feedback mechanisms (something that happened in all cases), we simply did not know whether in another school the same measure (e.g. replacement of an external lecturer because of poor teaching) had not been taken because the feedback system was worse, or because there was no need to take that measure. If we contrast the different cases in terms of their measures according to the four main areas of quality the schools see as important, the best reviewers had been schools D and E, closely followed by school C. The schools B and A, though not poor at reviewing, follow last in the ranking.

8.2.3 The Factors from the Theoretical Framework Enabling or Constraining Review in the (I)VET Institutions Studied

Block A: Design Process

The only pre-designed Quality Assurance system, KTQ, did not have direct effects on use of QAS data, nor on quality in general as it does not concern explicitly school quality. The students' questionnaires about their experiences in the practical phases (designed by the different schools themselves) all cover more or less the same points and are generally seen as helpful. The schools' individual approaches to gather data on quality are structured along what are seen as the most important fields of quality and work quite well – no matter whether the QA approach was adopted from another model (ISO 9000) or developed fully internally.

In terms of design goal, all schools put the focus on improvement (without feeling the need of benchmarking). Additionally, school B used the process of undergoing certification according to KTQ for developing its own categories in terms of transparency of work flows and information. When using ISO 9000, certification was not seen as a primary goal, but strategically used as independent evidence of the school's quality.

All schools hold the opinion that the focus on individual improvement is crucial for Quality Assurance tackling the fields the schools think are important concerning quality.

	Factor
Enabling	Self-designed or heavily adapted Design goal improvement
Constraining	

Block B: QA System

As we do not find a 'system' for Quality Assurance but rather bundles of data that lead to different actions and measures, it is hard to judge which QAS features play

which role for the review stage. What is clear, though, is that to be effective they must cover the crucial areas of school quality, notably the interrelationships between instruction in school and in the hospital wards.

Moreover, it proved important that all stakeholders (notably teaching staff, heads of school, wards, and students) are regularly involved in the feedback processes, as respondents as well as recipients of output. This sustains an overall high level of communication. This high level of communication then changes the character of QA data and measures taken – it becomes an open process of quality development (school D probably maintains the highest level of communication between stakeholders and does so without feeling any need for an outspoken QAS – they frame their work more in terms of continuous improvement).

'Data procession' now gets the sense of the actors involved being able to adequately communicate problems and find solutions. Likewise, validity and reliability of data depend on the perception of the actors as well. In all cases studied we saw that especially between the core staff and between core staff and students, a high level of mutual trust is at hand. Students and teachers see themselves as working hard together for developing quality teaching and improving it all the time. In our view, this may well be a precondition for these informal systems to work.

	Factor
Enabling	Quality indicators on teaching and learning processes, co-operation with wards, co-operation between teaching staff Involving all stakeholders as respondents and recipients of output Main indicators covering the most important areas of quality Mutual trust enabling a high level of communication and thus validity and reliability of data
Constraining	

Block C: Implementation Process

In our cases, we notably saw two schools (C and D) refraining from implementing a formal QAS, as they judged the work load too high compared to the expected outcomes. The different Quality Assurance measures they implemented were driven by the heads of school, involving the core staff (teachers).

Workload was a theme in the case of school B that underwent certification, too. In the case of school E, implementation went smoothly as it was undertaken by the core staff as a whole. In school A, the three heads of department and the head of school drive the process (again: we see more ongoing processes than firm systems that are implemented once and for all).

The degree to which students take part in this process is difficult to judge, too. They are not directly involved in the design of questionnaires, but in one case (school A), their commentaries lead to modification. For the informal ways of

securing quality one may argue that the very fact that students give feedback is shaping the respective communication processes. Without involving the students, implementation of informal feedback would not work.

	Factor
Enabling	Promotion of user participation
Constraining	Implementation as additional workload

Block D: School Organisation Features

Here we saw as a clear and important factor the size of the school. The small schools make strong and conscious use of the fact that the staff (and often the practical instructors at the wards, too) know each other personally and can easily communicate. The two larger schools here encountered some problems. The extensive use of questionnaires in the case of school A can be seen as a means to compensate for this. An interesting side aspect here was the use of the school organisation itself as a QA means in the case of school C: by organising the practical phases the way they did, they ensured feedback mechanisms.

Additionally, the way the schools are embedded in the hospitals is important for their ability to communicate with the practical instructors. Hospitals should be large enough to enable schools to select wards to co-operate with, but small enough to ensure communication. The case of school A showed problems in communicating to the many different partners (again: this is one of the very reasons why they try to adopt a more formal approach to Quality Assurance – it is not a failure of 'their' QAS, but a circumstance that hinders informal communication, requiring additional measures). Here, the ongoing concentration processes may call for a more formal organisation in the future as schools increasingly will have to co-operate with hospitals being at considerable distance.

As the school performance level seemed to be quite similar in all schools in our sample, and without 'hard' data to compare this level, it is quite unclear if this has an effect on review.

In terms of attitude towards Quality Assurance, another factor was the staff's motivation to strive for quality. This was most outspoken in the cases of schools E and C, the latter one relying on religion as a steady basis of motivation (here it was seen as quite normal that staff work extra hours to secure quality). When teaching staff perceived Quality Assurance as not directly related to teaching quality, it was perceived as a burden, though. As the schools are quite independent and do not directly benchmark, pressure to improve is mostly based on intrinsic motivations as well. Here, the school and core staff tries to exert pressure on external lecturers in order to raise co-operation and teaching quality.

Finally, as seen under (B), being a learning, innovation-enriched organisation is the very aim and core of the informal QA processes.

	Factor
Enabling	Small size, enabling high level of informal communication Attitude towards QAS as a useful means of securing quality Learning, innovation-enriched organisation
Constraining	Attitude towards QAS as not being related to teaching quality

Block F: (Un-)intended Effects

The main effect of the way quality is assured in German schools of nursing is, as already stated, that it becomes an open process. It is up to the awareness of the staff that potentially problematic developments are noticed early enough to take action. To what degree this is a strength or weakness remains unclear, depending on the schools' abilities to maintain these open processes. In our cases, first of all the small schools managed to develop a culture of quality where Quality Assurance became part of everyday work.

One of the bigger schools, school B, reported the effect of KTQ certification as raising awareness about quality. It may be typical, that larger schools have to invest more into maintaining this level of awareness for quality issues.

In the absence of an outspoken QAS, effects like additional control never were an issue – again the only counter-example being the relatively large school A, where external lecturers moaned about the additional workload of filling in and analysing questionnaires.

8.3 Conclusions

In general, the relationship between use of QAS data and what this use aims at – school quality – is rather difficult in the German cases. As they heavily rely on informal communication, it is quite hard to judge whether some 'systems' are more effective than others in assembling data about what is going on in the schools. It may be that in the schools we did not consider to be the best reviewers, formal and informal means of QAS are not as sensitive as in the others.

However, it is well possible, too, that these schools simply did not have the same problems. A general observation on the way quality is secured in German nursing schools is that the whole process is problem-driven. When a problem at individual level (e.g. student performance) or system level (e.g. collaboration with wards) is encountered by formal or (more often) informal means, action is taken. This may lead to additional awareness of the area the problem was encountered in (notably school D), or the area may just be left as it is – the very fact that a problem is encountered is seen as a sign that the informal QAS is open enough to encounter it and deal with it. Again, we could not find out when it is necessary to take further action in such a situation (e.g. set up meetings between staff and students, or

between staff and practical instructors on a regular basis), or to go along as before. This simply depends on the kind of problem encountered. Thus, we cannot state that a development in terms of more regular meetings, a more systematic approach to internal communication and so on, would be 'better' than an open process that lacks most regulations.

As we have found a generally quite high awareness of quality issues, the use of data was not the most important issue, as whenever a problem was encountered the schools were willing and ready to act upon it.

The problem was more the collecting of data, as the schools can only act on problems that they are aware of. Here, the single most important factor is how to enable and secure steady communication flows between all stakeholders.

Against this background, the following factors proved important in terms of schools being able to successfully review:

	Factors
Enabling	Design process: Self-designed or heavily adapted Procedures QA: Quality indicators on teaching and learning processes, co-operation with wards, co-operation in between teaching staff Involving all stakeholders as respondents and recipients of output Main indicators covering the most important areas of quality Mutual trust enabling a high level of communication and thus validity and reliability of data Goal of using QAS: improving the organisation QAS Implementation: Promotion of user participation School Organisation Features: Small size, enabling high level of informal communication Good communication with hospital(s) Attitude towards QAS as a useful means of securing quality Learning, innovation-enriched organisation
Constraining	Attitude towards QAS as not being related to teaching quality Implementation as additional workload

In general, these factors mattered because of influencing the formal and informal feedback processes that assure quality. As these processes are content-driven, factors enable or constrain the use of QA data depending on how well they support this content. For example, the way teaching and training is carried out in the health care school as well as at the working places in the wards is regarded as a key element for guaranteeing the quality of the education process. All cases show that if this integration of the two training sites is not working well, the whole education of highly competent nurses might be weakened.

Size and resources available at the school strongly influence QAS use. Smaller institutions can develop useful quality data for teachers and trainers, even when they face certain limits in time and money.

To secure these feedback systems, QAS use should embrace a certain balance of control and open feedback culture. The question for professionals is to what extent they can calibrate the QAS in such a way that it supports a trust relationship between teachers, lecturers, students and mentors and not to introduce a control situation which may weaken the teaching and training relation. On the other hand, in all cases of good reviewing we found that the core staff was committed to quality and exerted some amount of control on the staff on the wards, as well as external lecturers.

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Chapter 9
The Factors that Matter for Quality Assurance Across Six Countries

Adrie J. Visscher and Maria Hendriks

9.1 Introduction

In this chapter the results of the transnational analysis are presented. First, the contexts of Quality Assurance in (I)VET in the six project countries are described. Next, the case study results for all six countries are compared as a basis for drawing conclusions about which overall factors matter for review activities in Quality Assurance. The final section (10.4) includes some general conclusions.

9.2 The National Context of Quality Assurance in (I)VET in Six Countries

9.2.1 Structure and Organisation of (I)VET

The structure and organisation of (I)VET varies considerably among the countries participating in the REVIMP project. In Estonia, (I)VET is primarily school based; in Denmark and Germany training-on-the-job is predominant; and in England, the Netherlands and Italy school based education and apprenticeship systems co-exist. In all countries practical training forms an important part of (I)VET, but the balance differs between learning at school and training in the workplace as does the order in which theory and practical experience are offered.

In Estonia practical training in school workshops and enterprises follows the theoretical knowledge provided in schools. In Denmark and Germany (I)VET is organized according to a dual system. The German dual system could be characterised as an alternating structure where three or four days of on-the-job training is combined with one or two days of theoretical education at school. In Denmark (I)VET

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starts at school: students first follow a basic course which is school based and broad in scope, and subsequently, in a main course, specialise in a craft, or a trade. The main course starts with a practical training period after which there is an alternating structure of school periods and practical training periods. In Denmark the student concludes a training agreement for the practical training with a business enterprise; in Germany the training in an enterprise is based on a work contract.

In the Netherlands and England the school based system and the dual system co-exist. Dutch students can opt for either the block or day-release programme (BBL) which is predominantly practical, or for the vocational training programme (BOL) in which practical training and school based education are combined. The BBL programme originates from the apprenticeship system, the BOL programme in vocational schools. Since the implementation of the Act on Vocational and Adult Education in 1996 both programmes are offered in the same Regional Training Centre (ROC). In England (I)VET is organised in different school types. Post-compulsory vocational education is offered in the sixth form of secondary schools, in sixth form colleges, or in a College of Further Education (FE College). For more practical training students can choose for government funded work-based learning, or for employment with or without training. In England, the Colleges of Further Education are the main providers of (I)VET. Government funded, work based learning usually takes place in the form of an apprenticeship.

In Italy school based (I)VET is provided within the educational system under the responsibility of the Ministry of Education. (I)VET is more closely linked to work based learning and apprenticeship and is managed by the Regional and Provincial Authorities. The schools offering vocational education are mainly vocational schools or art institutes. The programmes are organised in a three year study course at the end of which the students obtain a first qualification, and a two year post qualification course to obtain the upper secondary school leaving certificate. Traditionally the provision of (I)VET managed by the Regional and Provincial Authorities mainly included apprenticeship; but gradually the Regional and Provincial Authorities diversified their provision and now also offer first level, three year Vocational Education and Training courses for young people who have completed basic education, as well as second and third level courses for upper secondary school leavers and graduates.

In England and Estonia vocational schools (in England: the Colleges for Further Education) also provide courses at higher education level. In Italy post-secondary courses have been created to train higher technical profiles (IFTS). IFTS courses are planned and carried out in partnerships between schools, vocational training centres, universities and enterprises. IFTS courses are financed jointly by the Ministry of Education and the Regional Authorities.

In the six countries the majority of students in (I)VET is between 15 and 20 years of age. The duration of the programmes varies. In Denmark VET programmes are 4 years long, in Italy (vocational education as part of the state education system) 3 to 5 years. (I)VET in Italy (vocational training provided by the Regional authorities), England, the Netherlands, and Germany includes a wide range of courses at different training levels for a diversified target audience and with long and short durations.

In Germany and the Netherlands major reforms in (I)VET concern the introduction of learning areas (Lernfelder) and competence based education, respectively. The idea behind these reforms is that Vocational Education and Training should no longer be based on school subjects (and an over-detailed qualification structure as was the case in the Netherlands), but on broader fields or competences that are rooted in the professions themselves.

9.2.1.1 The Nature of Vocational Education and Training for Nurses in the Six Countries and its Implications for the Case Studies

In Denmark, England, Estonia and Italy the training of nurses is part of the higher education system. In Estonia the case studies were therefore carried out in medical schools and institutions that offer courses for continuing education for nurses;[1] while in Denmark and Italy it was decided to focus on (I)VET for health care assistants.[2] In England, the normal route to a nursing qualification is also via higher education (entry at 17.5 years or over). An alternative route for those aged 16–19 years is via a two-year nursing cadet course. In four of the five English case studies, the course on offer was a nursing cadet or Apprenticeship course. The fifth case study focused on a course to validate health and social care learning in the workplace.

In the Netherlands the case studies were carried out in five Regional Vocational Education and Training Centres (ROCs); each of these offered courses for nurses. In Germany, as in the Netherlands, nursing is also part of VET. However, IVET for nurses does not belong to the state VET system. Nursing students are employees of hospitals and alternately they work in the hospital and attend the hospital's nursing school. For the case studies five nursing schools linked to hospitals were selected.

9.2.2 Reasons for Quality Assurance

In the literature three core functions of educational evaluation and Quality Assurance can be distinguished:

(1) Certification and accreditation, i.e. checking whether object characteristics conform to formally established norms and standards.
(2) Accountability: quality is made available for inspection to other units and/or the society at large.
(3) Organisational learning, when quality assessment is used as a basis for improvement at the same object level (cf. Scheerens, 2006).

[1] In Estonia there are only two medical schools, therefore it was decided to add three institutions for continuing education.

[2] In Denmark one of the four cases was an institute for higher education.

The objectives of Quality Assurance in (I)VET (and institutions for higher applied education) differ across the participating countries. While in England and the Netherlands both the improvement and accountability perspective are dominant and benefit from each other, in Denmark and Germany Quality Assurance is mainly improvement-oriented. In Estonia a transition in the evaluation approach is currently taking place. In the old system the emphasis was on accreditation and accountability merely by means of external evaluation. As from 2006 schools are obliged to carry out an internal evaluation, and improvement is the main Quality Assurance aim. In Italy a mixed approach exists: in the state education system Quality Assurance is mainly improvement-oriented while accreditation is a requirement for the regional vocational providers and is thus also an important function of evaluation.

As hospitals play an important part in the training of nurses in some of the countries, the Quality Assurance regulations and systems of hospitals are of importance too. This is especially the case in Germany where nursing schools are part of the hospital and thus also have to deal with the Quality Assurance system of the hospital. To a certain extent the Quality Assurance systems of the hospitals also affected the case studies in England and Estonia.

In England and the Netherlands accountability and responsiveness to the needs of public service users are important reasons for Quality Assurance as is quality improvement. In both countries, the primary responsibility for improving the quality of provision lies within the schools (in England these are the Colleges for Further Education, in the Netherlands the ROCs). Providers are required to carry out self-assessments on a regular basis, and inspections have been matched closely to the quality of provision. Internal and external evaluations co-exist and the idea is that they should benefit from each other.

In the Netherlands, since August 2006, with the implementation of risk-based inspection in adult and vocational education, the annual and periodical school inspections have now taken a different form.

In Denmark the main purpose of both internal and external evaluations is improvement of the quality of teaching and learning. A central principle of the Danish approach to Quality Assurance is the demand for systematic self-evaluation and follow-up. (I)VET institutions are required to assess their own functioning and performance. The Danish Evaluation Institute (EVA) is an external, independent body for Quality Assurance, and the development of Danish education. The institute conducts evaluations at all educational levels. The Institute primary focuses on ‘improvement’ whereas accountability to the government takes a second place.

In Germany, the Quality Assurance approach in vocational education is improvement-oriented, and makes use of rather informal methods. Traditionally, the German educational system was especially characterised by input control and relatively little process and output evaluation. However, since the early 1990s, the rather disappointing German results in international comparative studies stirred up the debate on the quality and the efficiency of the education system including the demand for some form of output control. One manifestation of this paradigm change is the introduction of educational standards which reflect the competences and skills to be acquired in the educational process.

In hospitals on the contrary a Quality Assurance system is compulsory. Due to changes in funding mechanisms Quality Assurance nowadays aims especially at cost effectiveness and cost reduction secured by standards and transparency.

In Estonia until recently, accountability and accreditation were the main evaluation aims. In 2006 an important shift in the evaluation approach took place. From then onwards schools for pre-primary and general education as well as schools for vocational education are obliged to carry out an internal evaluation. For VET schools a common Quality Assurance system is envisaged which should cover both self-evaluation and external evaluation.

For the training centres of hospitals and for private centres offering courses an external Quality Assurance system is not obligatory. These centres implemented a system for internal improvement.

For Italian schools belonging to the state education system there is neither an obligation for external evaluation nor an obligation for institutional self-evaluation. However, as Italian schools have become more autonomous the awareness of the importance of Quality Assurance at the school level has increased and most schools now carry out self-evaluation activities. Regional VET providers of vocational training on the contrary need to be accredited in order to receive regional funding.[3]

9.2.3 Internal and External Evaluation

In countries with almost no school evaluation tradition and few requirements for external and internal school evaluation like Germany and Italy, internal school evaluation is improvement-oriented and directed at the primary process of the school: the quality of teaching and learning (in Germany an important aspect of this concerns the coherence between 'school theory' and workplace training). In German and Italian schools Quality Assurance is mainly seen as a task for the individual school and usually quite informal and self-developed evaluation systems are used for this purpose. In Germany benchmarking with other schools or with a standard as a rule is not regarded useful. However, as nursing schools are part of the hospitals, and hospitals need to be certified, some nursing schools use the Quality Assurance system of the hospital. Other schools object to taking part in this process and rely on their own systems. The Quality Assurance systems of the hospitals usually do not aim directly at the nursing schools (e.g. teaching and learning are not evaluated in these systems).

In Italy, benchmarking with other schools or with an external standard is also rare. A small minority of schools organised networks to exchange experiences and methods, and some other schools adopted ISO 9001:2000. The majority of institutes however (also in the health sector) have a strong preference for an informal pedagogical approach to Quality Assurance.

[3]The same holds for state schools which apply for regional funds.

In Denmark regulations with regard to Quality Assurance and internal evaluation are also limited. Decentralisation and self-governance are the leading principles within Quality Assurance. The Ministry of Education set up minimum requirements for self-assessments and the follow-up plans which should be based on self-evaluations. Areas that should be included in the self-evaluations are: (1) the provision of education and subjects; (2) the vision, mission and objectives of the provider; (3) examination results; (4) the evaluation of the types of education and training provided; and (5) external evaluations. Taking into account these areas, schools are free to develop their own Quality Assurance system, or to choose a standard model like the model of the European Foundation for Quality management (EFQM). External evaluation and accountability connected with internal evaluation in Denmark primarily concern the involvement of stakeholders in setting up the follow-up plan and the publication of evaluation results on the website of the school.

In England and the Netherlands external and internal evaluation are interdependent. In these countries schools and colleges (including those for nurse education) respectively Regional Education and Training Centres (ROCs) are required to undertake self-assessments on a regular basis. In both countries the self-evaluations are expected to be used for improvement as well as accountability, both by the inspectors and other interested parties. Vice versa, schools could take into account the judgements by the inspectorates and other performance data during their next internal evaluation. As is the case in all participating countries schools in England and the Netherlands can also choose or develop their own evaluation methods. In the Netherlands the Education Inspection Act does not list aspects of quality that should be included in the evaluation, because of the autonomy of institutions, and the tasks they are required to fulfil under the Adult and Vocational Education Act. The purpose of inspections therefore is to establish what institutions are doing to fulfil the tasks, what targets they have set themselves, and whether they are achieving them.

In England the Inspectorate provides self-evaluation templates for schools and an information system for ‘Reporting and Analysis for Improvement through School self-Evaluation’. In England a list of aspects that should be included in the self-evaluations is available.

In Estonia the obligation to carry out an internal evaluation is of a very recent date. In order to help schools, support measures are being implemented such as counselling educational institutions with respect to internal evaluation, issuing a handbook for schools with recommendations for internal evaluation, and the initiation of a VET school quality award. Intensive supervision which used to be carried out every six years is no longer conducted in schools for pre-primary, general and vocational education. Instead supervision focuses on individual issues, and is primarily based on state supervision. There is no linkage between the internal evaluation of schools and external school evaluation by the inspectorate.

Accreditation is a major functional area of educational evaluation in Estonia (applied higher education) and Italy (VET system managed by the regional authorities). While in Estonia the accreditation should include both self-assessment and peer review, in Italy the VET providers are not obliged to have an internal or external Quality Assurance system. To be accredited and to maintain the accreditation,

Italian VET providers must demonstrate that they accomplish the requirements in five main quality areas: (1) management, (2) finance, (3) staff (both teaching and non-teaching staff), (4) efficiency and effectiveness, and, (5) links and contacts at local level. As the first three requirements could be met by means of an ISO certification, the ISO 9001 certification is strongly encouraged in Italy, and is in some regions even obligatory. In fact more than half of the VET providers are ISO 9001 certified institutions. In Estonia the categories assessed include the content of the programme, the quality of teaching, management practices, the state of study facilities, and Quality Assurance practices.

Besides inspection and accreditation, external Quality Assurance also takes place in the form of setting curricula guidelines, formulating exit qualifications and competences, the ministerial approval of provision, funding mechanisms, examinations and assessments (both at national and international level), mandatory requirements for teacher qualifications, and the professional development of teachers. Each country uses its own mix of external evaluation policies to guarantee the quality of (I)VET. The details can be found in the country chapters of this book.

9.3 The Results of the Case Studies

9.3.1 Selection of Case Studies

In selecting the schools for the case studies a variation in structures (Germany, England), geographical location (Italy), or owners of provision (Germany) was sought. In addition, in three countries, schools were identified through the national inspectorate, or based on Quality Assurance reports (England, the Netherlands), information on Quality Assurance available from the Ministry of Education (Italy), respectively. In Estonia and Denmark a convenient sample was taken. In Estonia this was due to the fact that there are only two medical schools in the country; in Denmark it turned out to be quite difficult to engage institutions to take part in the case study research, which was also the case in England and the Netherlands.

As described before, it was not possible in all countries to carry out the case studies in (I)VET for nurses. In Denmark and Italy therefore the focus was on (I)VET for health care assistants and in England (four cases) on the nursing cadet courses. In Estonia two case studies were carried out in higher education (medical schools), the other three focused on courses for continuing education for nurses.

9.3.2 Data Collection

In all countries, data collection took place between April and June 2006. Interviews were conducted with teachers, managers and students and, if applicable, with Quality Assurance coordinators. In Germany in some schools other stakeholders such as staff from the wards or the hospital's general quality manager were interviewed as well.

In almost all cases the interviews were undertaken face-to-face, using the interview questionnaires developed in the REVIMP project. In England and the Netherlands some interviews were administered by telephone. In Denmark the questionnaires served as the framework and point of departure for the discussion on the nature of QA.

In England and the Netherlands additional context information was drawn from available national Inspectorate reports. Moreover, in four countries (England, Estonia, Italy and the Netherlands) relevant QA documentation and data collection methods were studied as well.

9.3.3 Types of QA Systems Used in the Institutions Studied

Within and between countries significant differences were found with regard to the thoroughness and development of the QASs used. In England and the Netherlands, however, due to the external requirements for evaluation and accountability that exist in both countries, similarities in QASs within each country were also found. To a limited extent this was also the case in Denmark where institutions have to comply with the minimum requirements for self-assessment set up by the Ministry of Education.

In all participating countries institutions have the freedom to choose or develop their own QAS. Across the case studies no institutions were found that fully implemented an external QA system. If institutions used an external system (i.e. EFQM, ISO or KTQ), or implemented a system inspired by other VET schools systems, they adapted this system to their own specific information needs. In England all institutions developed their own QA system under the leadership of a course manager or a departmental manager, and with the input of staff at all levels. In England, in all institutions numerical data is collected for quality indicators related to recruitment, completion and achievement (all case studies) as well as attitudinal data for quality indicators related to learner and employee satisfaction (four case studies). In some institutions data for additional indicators are collected too, such as data on the quality of provision, conformity to external requirements, value for money and parental satisfaction.

Both within externally adapted and internally developed QASs procedures and methods are used which can be more formal or informal. Generally, schools in countries with strict external requirements for evaluation and accountability and a longer tradition of QA in education like the Netherlands and England appear to use more formal procedures and methods. This is contrary to the practice in Italy, Estonia and Denmark where only a few schools use formal methods and procedures. In the latter countries the majority of schools follow an ad-hoc approach, or have not developed a comprehensive system yet. Also in Germany (nursing) schools mainly use informal methods and feedback mechanisms which can not be labeled as a QAS. In German schools, just like in the case of three of the Italian case study schools, QA turns out to be strongly focused on the improvement of teaching and training processes within

the school and between the school and the training provider (ward). Benchmarking with other schools is not regarded as helpful in German schools and indicators are used only cautiously.

9.3.4 Factors Enabling or Constraining Review in the (I)VET Institutions

Block A: Design Process

Across and within countries in almost all cases internal improvement is the main goal of designing a QAS. Across the case studies the factor design goal does not seem to explain much variation between good and poor reviewers. In some cases external accountability or certification is required: the medical schools in Estonia which need their curricula to be accredited, the vocational State schools in Italy which also want to run Regional training courses and therefore needed to be certificated, and the ROCs in the Netherlands which are obliged to account publicly for their quality. Even in those cases the most important design goal is improving the functioning of the organisation. In the Netherlands, the ROCs report external accountability as a secondary design goal. Accountability is a secondary design goal and is especially of importance during the starting phase of QA. In Estonia schools received ample feedback from the Ministry during the accreditation process; therefore the accreditation is not considered very relevant. In Italy in one school the ISO 9000 model has been fully developed and all three design goals (improvement, accountability and certification) have been reasons for introducing a QAS. In the other Italian school the adoption of the ISO model is strictly linked to extrinsic motivation such as the opportunity to increase the number of courses and the number of adult students, and is therefore seen as a constraining factor.

England is the only country in which the factor *design goal* explained some difference between more active and less active reviewers. In England, just as in the Netherlands, each of the colleges reported the need for the design of the QAS to pursue both accountability and improvement. However, the colleges which emphasized QA for improvement rather than accountability alone were the more active reviewers, and provided a fuller coverage of institutional quality.

All institutions involved in the case studies have an internally designed QAS, or based their QAS on an externally designed system such as ISO, EFQM or KTQ, and adapted this system to the needs of the institution. No substantial variation was found between institutions which either designed a QAS, or adapted an externally designed QAS.

In Italy a decisive factor explaining differences between the more active and the less active reviewers does not seem to be the internal or external model itself. The more active reviewers involve teachers both in the decision-making process of adopting a QAS and in the design of an internal model, or the adaptation of an

external model. This factor, *staff involvement in the design process*, is notworthy in the English and Dutch case studies too. In England, where in all cases the QASs were designed internally, staff input at all levels led to many valuable ideas for the design of the QAS. As a consequence, QA processes were developed which had the support of staff which in turn, and dependent on other factors in some of the cases, led to a higher degree of QA data utilisation. In the Netherlands, in two of the three ROCs ranked as intensive reviewers, staff were also involved in the design of the QAS. In these two ROCs the design process followed can be characterised as the prototype model, an iterative design and evaluation process whereby a preliminary model (EFQM) forms the basis for the QAS of the institution. Next, at the overall level of the institution, a global outline of the design is constructed; and at lower levels specific parts are tried out and evaluated with staff and other stakeholders. On the basis of the evaluation results the QAS is adapted further.

Block B: the Quality Assurance System

In almost all countries, a QAS covering more important aspects of quality (that is a wider range of *quality indicators*) within a school or college seems to go together with a higher degree of QA utilisation. In England, all colleges have quality indicators based on numerical data relating to recruitment, retention and achievement. The more active English reviewers also use quality indicators based on attitudinal data. In particular, data on the views of learners, course staff and employers, whether work-based or classroom-based, lead to improvement of courses. These data help staff to understand the underlying reasons for the strength and weaknesses of the educational provision.

In Germany, to be an effective reviewer, the indicators must cover the crucial areas of school quality too, notably the teaching and learning processes, the interrelationship between instruction in school and the hospital wards, and the co-operation between teaching staff. Quantitative, comparative data like the quality indicators based on numerical data in the English colleges are only used with reservations. Moreover, German schools usually do not compare their results directly with those of other schools.

In Italy, Denmark and the Netherlands, the data from the case studies also indicate that more intensive review activities in schools and colleges go together with a QAS that has a wider focus on institutional quality. In Estonia, the colleges and training centres which have a broader set of quality indicators are also not necessarily always successful reviewers as one of the colleges does not have the necessary resources to process all the data collected.

Another important factor for successful review improvement especially in England, Estonia and Germany concerns the careful choice of *data collection methods*. In schools in the Netherlands, Denmark and Italy the factor *a wide range of data collection methods* is linked to successful review too but schools in these countries do not differ strongly in their data collection methods.

Data collection methods may include:

- learner satisfaction questionnaires;
- questionnaires for work placement employers, and for employers who have recruited newly qualified learners;
- learner portfolios and workplace diaries;
- lesson/training observations;
- learner interviews;
- peer review (whereby institutions review each other);
- alumni questionnaires and interviews;
- teacher and parent satisfaction questionnaires;
- collection of information on learners' destinations after completion of studies, and their position in the labour market;
- collecting and analysing data about learner completion and achievement rates;
- data collection for the creation of benchmark indicators (making comparisons with similar institutions on the basis of relevant indicators).

In the Netherlands it is not just the wide range of data collection methods that goes together with an active review process, also the spread of QA topics and data collection methods over periods is important. This reduces the QA burden on staff and makes it more feasible to monitor and improve the quality of the Colleges.

In Estonia the medical schools use a wider range of methods than the training centres. The medical schools therefore are able to review the function of their whole institution; this in contrast to the training centres which just collect data on students' satisfaction with courses.

In England, both formal and informal feedback procedures from staff and learners have led to improvements in the colleges. However, in England, the more intensive reviewers also provide formal mechanisms for stakeholders to express their views. What is more, not only an end-of-course review appears to be linked to successful QA in the English colleges but also mid-point reviews of provision. The importance of feedback during the process is endorsed by German nursing schools. In all German nursing schools, every class has one or two representatives who meet with teaching staff on a regular basis (mostly bi-monthly). Also to secure continuous feedback on the learning process and in order to be able to identify problems quickly, German teachers visit the students in the ward, or (one school) have the students one day a week at school during the practical phases.

A third factor linked to the degree of success in reviewing QA information is the involvement of *external stakeholders* in data collection. With regard to internal respondent groups (with the exception of Italy) schools do not differ in the target groups included in the data collection. In Denmark, England, Estonia, Germany and the Netherlands data is collected among staff and learners in almost all schools. In Italian schools, by contrast, the principal and QAS coordinators are the main stakeholders involved in the data collection. Students usually are not involved in QA in Italian schools. In Italy, in almost all schools the view of external stakeholders such as employers is not taken into account either. The latter is also the case in the

training centres in Estonia. While the medical schools collect data from external stakeholders like placement supervisors, professional unions and project partners, neither the hospital training centres nor the private training centre collect information from workplace managers. In Estonia involving too few stakeholder groups was seen as a constraining factor, as it appeared that the training centres are not aware of whether their training has been successful or not.

In Germany, where QA heavily relies on informal communication and the process is problem-driven, it might be even more important that all stakeholders (notably staff, principals, wards, and students) are regularly involved in the feedback processes both as respondents and recipients of output. Schools need to become aware of the problems; and therefore mutual trust among stakeholders and an open communication process are important. Quality 'data processing' in the nursing schools proved to be very important for the main actors (especially core staff and students) in order to communicate problems and find solutions. In addition, in all cases of good review core staff are committed to quality and exerted some amount of control on external stakeholders (i.e. staff on the wards and at external lectures).

In England, Denmark and the Netherlands there are mandatory requirements to involve external stakeholders in the quality review, and institutions do not differ as to the inclusion of these target groups.

Regular and timely distribution and discussion of QA data is a fourth factor with regard to the features of the QAS which turned out to be important for the full utilization of the QA data.

Evidence from the case studies in Denmark, England, Estonia and the Netherlands suggest that the discussions on the QA data are most effective when regularly scheduled and timed to coincide with the latest QA data. In these countries a regular distribution of data, in combination with a discussion and interpretation of the data were most frequent amongst the more active reviewers.

At the same time it was stated that a fully developed QAS requires much time and effort, both for data collection and discussion. Overloading teaching staff and other stakeholders with too much data should be prevented. In distributing QA information institutions should therefore try to find a balance between the QA information available and the information needs of the different stakeholders.

In Italy, in the two schools which are considered to be good reviewers the QA results are fed back and discussed with all the teachers. In the other schools the distribution and discussion of the data is restricted to the QAS staff and the teachers involved in QA.

In England, Estonia, Italy and the Netherlands,*sufficien QA staff effort* is also seen as a factor which promotes an active review process. In these countries, regardless of the extent of QA review, staff generally reported that QA requires much time and effort. The only institution within which little staff effort was reported proved to be a fairly inactive reviewer.

In England, Estonia and the Netherlands, the more successful reviewers generally accept the high burden of QA as they underscore the importance of QA (the Netherlands) or see it as closely linked to the success of their course (England). In Italy on the contrary, the QA coordinator and QA staff did not feel sufficiently rewarded for

their work. Only in the schools which are seen as the more active reviewers is the QAS coordinator exempted from teaching duties.

In the Netherlands in each College QA coordinators are appointed, usually at the higher (unit and school) levels, and QA is also the task of a central service of an agency within the College. Besides, within each team, usually one or two staff members have a QA responsibility. In some Colleges the team members receive some task hours for QA. Usually this is not enough, but teachers accept it as they attach importance to good quality. The latter is also endorsed in the English case studies. Moreover, in England the colleges reported that the implementation of QA required relatively more time and effort than its subsequent usage.

A final factor found linked to differences in the degree of review is the clarity regarding the *goal of using the QAS*.

In England, all course staff within all consulted institutions understand the goals of their QAS. However, at the most successful reviewers, students appeared to be aware of the purposes of the QA too. This was also the case in one of the three Dutch Colleges most active in terms of QA and review. In this College as it was the case in the two other Dutch colleges which are seen as active reviewers, staff reported that QA had definitively proved its usefulness for improving the functioning of the organisation.

Schools in Denmark (the two more active reviewers) and Italy (one of the two best reviewers) reported something similar. In these schools the more extensive evaluations and regular QA procedures had led to a comprehensive perception of the performance and functioning of all important aspects of the institution, which in its turn enables a better review.

Block C: The Implementation Process

The importance of *training users for Quality Assurance* is stressed in all countries; and at the same time the data show that in general user training is too limited. The limitations concern the target group (often only part of those who will be involved in Quality Assurance), the content of the training (not all relevant aspects are covered: explaining the relevance of QA, specifying the QA goals, motivating staff for QA, skills training, etc.), and the amount of time spent on training users (often a brief, one shot activity). Too often the full complexity of QA is not understood and it is implicitly assumed that setting up QA activities can be done without the careful preparation, monitoring and optimisation of this implementation process.

Another prerequisite for successful QA emerging from the case studies in the various countries is the *involvement of the various stakeholders* (especially management, teachers, and students) in the process of starting QA, and making it work. Similarly to the factor ‘user training’, stressing the importance of the factor goes together with drawing the conclusion that stakeholder involvement is often too limited. Involvement is important as it promotes innovation ownership, and because it promotes input from various user perspectives and the modification of QA to the needs of the stakeholders.

A third factor that needs the attention is the provision of *resources* for working on QA. QA is not something that can just be done next to all the other work obligations. Especially during the implementation of QA, extra time and money will be needed for accomplishing QA, but also in a more steady state time, tools and money will be needed for collecting, processing, distributing, interpreting QA data, and for using them for taking and implementing measures for improving institutional performance. In general, the allocation of extra resources to QA is too limited and as such constrains QA.

Block D: School Organisational Characteristics

It is striking that actually none of the approximately 30 institutions studied in the six European countries has a solid impression of its *performance* in comparison with other similar educational institutions in their country! The same will probably apply for many other educational institutions around the world.

This fact stresses the importance of performance feedback to and Quality Assurance within educational institutions, as in that way staff obtain information on how they are doing in comparison with others, and based on that, how they can improve institutional performance.

In many cases, however, QA proves to be a matter of collecting data *within* the institution (e.g. student satisfaction surveys), or of collecting external data which do not allow benchmarking with similar competitors (e.g. data from employers on how satisfied they are about the skills and knowledge of the students they receive from the school). In other words, performance feedback on how much students are learning within a school in comparison with similar schools can be very important for raising performance awareness and performance improvement.

Two other factors included in the theoretical framework prove to matter although at least one of them in a slightly different way than was assumed in the theoretical framework: *the pressure to improve* and *QA-attitude*. The assumption in the theoretical framework is that schools will be more inclined to work on Quality Assurance if they experience a strong pressure to improve, for example from the school inspectorate, or due to fierce competition between schools. Actually this pressure to improve overall was not felt that much in the cases studied. Only one Dutch school experienced such a pressure to improve as a consequence of a negative judgement from the inspectorate about the school's performance. In all other cases a high stakes improvement pressure was not observed and did not explain differences between schools in QA and review.

The QA-attitude however proved to be a factor that matters, not so much in terms of the attitude towards the QA-system used within the school, but more as the *staff's intrinsic motivation to secure and improve the quality of instruction and the knowledge and competences of students*. In those schools where this attitude is available, staff are more motivated to work on QA and to work with the QAS the school has.

The German case studies gave reason for formulating the hypothesis that the need for formal QASs is smaller in smaller educational institutions than in larger

ones simply because people have a better overview in small institutions of how things are going, and it is also easier to communicate and cooperate with the goal of improvement in smaller schools.

The English cases studied gave reason to assume that QA flourishes more in those institutions where the *principal encourages QA* and the use of a QAS.

The findings pointed here again to the fact that QA and review are more difficult under those circumstances where the *resources* to work on QA are too limited (which makes sense if one thinks of all the work involved in collecting, analysing, distributing, discussing QA data, and in developing and implementing improvement actions).

The UK data pointed to the fact that QA in health education is a matter of multiple organisations which have to work together, e.g. educational and medical institutions like hospitals, which is not always easy as they may not necessarily have the same ideas about quality and how it can be secured.

Block E: The Use of QA Information

The picture of the use of the QA information is varied within a country which is logical as an attempt was deliberately made to involve institutions in the study which differ in terms of the intensity of their review activities. In the Netherlands for example three schools were active regarding data collection, discussion, diagnosis and improvement activities. All five schools seemed to use the Quality Assurance information also in a conceptual way: the data encouraged their quality awareness and concern and improved their insights into the strengths and weaknesses of their institutions. Similar pictures were observed in other countries. In England and in Italy a relationship was found between the length of QAS use and the intensity of QAS use. Schools gradually grow to higher levels of Quality Assurance: so that there are more parts of the institution working on Quality Assurance, more aspects of school functioning for which Quality Assurance becomes important – from collecting data and looking at the data, to taking structural measures based on the feedback from the QAS to improve school functioning.

Block F: (Un) intended Effects

First of all, it is difficult to attribute specific developments within the cases studied to the introduction of Quality Assurance as in many cases there are often simultaneously other phenomena that may be responsible for these developments. So, only the perceived effects of the introduction of Quality Assurance (systems) can be reported here.

Staff within the educational institutions studied are often quite positive about the effects of Quality Assurance. In the Netherlands the most active reviewers report improved instruction, better student performance, lower drop out rates as effects. Other Dutch schools see Quality Assurance as something extra that needs to be done and which takes too much time. In one case a school complained about the number of improvements which have to be accomplished due to Quality Assurance

and another about the friction between internal and external (inspectorate) quality indicators.

The German findings show that quality maintenance in the view of some respondents is something which does not ask for formal arrangements as it is part of everyday work. Larger schools especially have to invest in maintaining quality because informal Quality Assurance falls short there. In some cases staff also point to the workload caused by Quality Assurance.

The Italian institutes report positive (better learning programmes, better teaching and student performance) and negative (higher workload, key players do not always feel rewarded) Quality Assurance effects.

The findings in England are positive: more awareness of institutional strengths and weaknesses, actions based on that information, and as a result better teaching, assessment, learning, student performance in school, employer satisfaction and student employability in companies.

More quality awareness and problem solving due to Quality Assurance are also reported in Denmark; however, some Danish teachers feel somewhat controlled by means of Quality Assurance.

Finally, only positive Quality Assurance effects were found in Estonia: more teacher self-confidence, more quality concern, better learning programmes, improved information flows, improved school management, and student performance.

9.3.5 A Summary of the Relevant Factors

This chapter has shown the strong variation in the structure and organisation of IVET across the six project countries. Despite this variation some factors prove to be of general importance for Quality Assurance and review.

Block A: Design of the QAS

Internal institutional improvement is the main goal for developing a QAS and for working on Quality Assurance within the institutions for healthcare in all project countries (as such this factor does not explain variation in review activities). All QASs have been developed within the institution, or were external QASs which had been adapted to the needs of the institution. The factor *staff involvement in the design process* seems important for successful Quality Assurance: if staff can input their ideas and needs into the design process, this leads to Quality Assurance processes which are supported by the staff, and to more intense review activities.

Block B: The Nature of the QAS

Several aspects of the QAS prove to matter for review. One important QAS feature is the *coverage of the quality indicators*: a wider coverage of institutional quality seems to go together with a stronger utilisation of Quality Assurance data.

Coverage is also important in terms of the extent to which the *views of the various relevant internal and external stakeholders* are covered: e.g. the perceptions of learners, employers and teachers on the quality of the teaching–learning process.

A *wider range of data collection methods* is linked to more active review in a number of countries, which raises the question what causes what: does more active review lead to more data collection, or does a variety of data collection methods lead to more active review?

Spreading data collection on various topics over time (instead of collecting most data at one moment in a school year) seems to reduce the burden put on school staff and it enables successful QA and review.

The regular and timely distribution and discussion of QA data is another factor influencing the utilisation of QA data. Regularly scheduled discussions of QA findings which are timed to coincide with the latest QA data promote more active review.

Differences in the degree of review activity may also be explained by the clarity of the QA enterprise to all relevant stakeholders; clarity on what QA is for is a prerequisite for starting to work on it and invest in it (assuming that the stakeholders agree with investing in QA).

Two factors which can constrain active review are: insufficient rewards for QA staff (feeling appreciated); and the lack of time and other resources for working on QA.

Block C: The Implementation Process

Our findings show three important implementation factors which can be seen as enabling factors but at the same time in these case studies did not meet the required levels and as such had a constraining influence:

a. *Training users* in all relevant aspects of QA (its relevance, the goals, the required skills). Often too few staff are trained and then only regarding just part of the relevant aspects, and for a short time. The reason is probably that there is insufficient awareness of the relevance of careful user training.
b. The *involvement of all relevant stakeholders* in starting the QA activity (see also Block B) and in making it work. Stakeholder involvement is so important because it promotes ownership and a good match between QA activities and the needs of the various actors.
c. The *provision of the resources* required for QA: extra time, staff and other resources are needed; QA is not just something that can be done next to all other obligations.

Block D: The School Organisation

The data point to the importance of indicators showing a school's performance in comparison with similar schools. That kind of information is missing and as such does not encourage schools to improve their performance. There is a case of a school

pressured by the inspectorate to improve which clearly stimulated the school to work on QA and to improve.

Staff's *intrinsic motivation* to secure and improve learners' achievement logically proves to be a very influential factor in the context of QA, as it goes together with a positive QA attitude and as it promotes the desire to have good information for improving student performance. The *principal can motivate* and encourage staff to work on QA.

The Table below summarizes the enabling and constraining factors in the six countries studied.

	Factors
Enabling	Design process: staff involvement QAS that widely covers important aspects of quality and the relevant stakeholder views Procedures QA: • Wide range data collection methods • Data distribution: regular and timely • Spreading data collection activities over time Enough staff effort in QA Clarity QA goal Staff motivation for promoting student performance and QA Pressure to improve Encouragement from principal School size
Constraining	Lack of innovation resources User training too limited Limited staff involvement in QA Insufficient intrinsic rewards QA staff

9.4 Conclusions and Reflections

The background of the "From Review to Improvement" (Revimp) project is the observation that although many resources are being invested in the early stages of the so-called Quality Assurance cycle (especially in collecting data about the functioning of educational institutions) the data are not utilised enough for reviewing and improving institutional functioning. As a result, considerable resources are spent on Quality Assurance; however, its benefits are limited, which may in the long run imply that it is experienced as a useless burden which cannot be stopped because an external body demands it. That would be a pity as Quality Assurance, if carried out in the right way, may be a valuable approach for improving the functioning of educational institutions.

In response to this problem definition, Quality Assurance and review processes have been studied in 30 cases in six European countries to discover which factors bring about the fact that some European institutions for IVET are more successful

in reviewing and improving their functioning than others. The goal was to use the insights gained as a basis for developing guidelines for Quality Assurance in European IVET and as such to contribute to making Quality Assurance in European IVET more productive.

9.4.1 Problem Confirmation

Based on the findings from the case studies the conclusion can be drawn that it indeed proves to be difficult for IVET staff to transform collected Quality Assurance data into improvement-oriented activities.

The framework presented in Chapter 2 of this book reflects the assumption that the utilisation of Quality Assurance data implies that problems in institutional functioning are detected, diagnosed and solved and that this will lead to a higher quality of instructional processes within IVET providers, which in turn will improve student achievement. The whole causal chain from data collection to improved student performance was seldom observed in our case studies. In many IVET institutions Quality Assurance data are collected and distributed within the institution to some extent: they are looked at, possibly discussed and in some cases do lead to measures to solve and improve one or more aspects of the IVET institution. The measures are usually of a down-to-earth nature and often not the result of a profound analysis of what is wrong, which factor(s) cause(s) the problem(s), and what may be the right solution of the problem. Moreover, it was striking to see that the IVET providers in general did not work on Quality Assurance in the context of improving its 'production' (i.e. how much their students learn in terms of gaining knowledge and acquiring skills). Most IVET providers did not have an idea of their level of performance in these terms and thus also did not focus on improving the performance levels of their students by means of Quality Assurance.

Instrumental use of Quality Assurance data is limited; respondents report especially higher levels of quality awareness due to Quality Assurance activities (i.e. more conceptual use); however, there are signs of a very gradual growth to higher levels of instrumental use.

Striking is the contrast between the features of the utilisation of Quality Assurance data and the *perceived* effects of data use; the latter ones in several countries are very positive, too positive to reflect reality accurately (given the limited use of the QA data). Next to growing quality awareness levels, improved instruction, and student performance levels are also mentioned as effects of Quality Assurance. In addition to the reported, intended effects quite a few respondents in the various countries complain about the high workload due to Quality Assurance.

9.4.2 Setting and Evaluating Goals

The Revimp project is a Leonardo project with a European focus which connects with the work of The Technical Working Group "Quality in Vocational Education and Training" of the European Commission. In Chapter 1 of this book reference is

made to the Common Quality Assurance Framework developed by the Technical Working Group to support European VET providers in the development, evaluation and improvement of their Quality Assurance systems.

The Common Quality Assurance Framework proposes a very rational, goal-driven approach to Quality Assurance; the assumption is that IVET providers set goals they want to accomplish, implement actions to achieve the goals set, after some time evaluate the achieved outcomes, and, based on the findings, correct where necessary, in order to optimise goal accomplishment.

The images obtained of how IVET providers work on Quality Assurance does not resemble this ideal. The goals of IVET providers are probably too general to give directions for the actions to be implemented in schools, and for evaluating to what extent a school meets the goals set. IVET providers evaluate all kinds of aspects of their functioning like for example data on the satisfaction of learners, teachers, and parents with the courses provided, and employers' opinions of students' competences. These evaluations are definitely important and also may lead to important improvements of processes at classroom and at school level, and, as a result, to more competent students. However, the goal-driven approach is only applicable here in terms of the goals that may be set *in response to Quality Assurance finding* (e.g. the goal of reducing the percentage of drop outs to a specific percentage if the Quality Assurance data show that this percentage is unacceptably high). In other words, Quality Assurance is not so much a matter of providing feedback on overall institutional performance goals. IVET providers like companies setting specific profit goals could set goals in terms of, for example, the percentage of students who should pass the examinations with specific scores, and then regularly could benefit from feedback on the degree of goal accomplishment. However, this was not what was observed in practice, which is a pity as there is much empirical evidence (Locke and Latham, 1990) that Goal Setting can improve performance dramatically. Setting clear, specific, challenging and attainable goals can focus activities, it can motivate to search for strategies that produce better results, and employees may persist more if they have committed themselves to specific and challenging goals.

Especially the combination of Goal Setting and feedback can be very powerful in improving the performance of individuals and organisations (the feedback can give precise information on how one is progressing towards one or more set goals and as such can help in timely searching for better task strategies if the strategies used do not lead to the intended results).

9.4.3 A Revised Theoretical Framework

Chapter 2 presents the theoretical framework with the potential critical success factors for the review phase (which had been based on a review of the literature) and their relationships. The framework was tested in the case studies which confirmed a considerable part of the framework in terms of factors that enabled or constrained a successful review stage in Quality Assurance activities.

Some of the factors in the theoretical framework did not play the expected role in the case studies. This may have been caused by the selectiveness of our cases (in other words, maybe the factors will be confirmed in a new sample of case studies, for example, because those cases vary more in that sample and as a result explain more variance in review activities), by the validity of the measurements, or by the fact that those factors are indeed not decisive for the review activities.

It should be noted that the same kind of reasoning applies to those factors in the theoretical framework that were confirmed in the case studies, and to those new factors not included in the framework, which in the case studies seemed to be influential in the review activity. The case studies are of an exploratory nature; more general statements about influencing factors require large scale research and random sampling.

All four blocks of factors included as influencing the utilisation of Quality Assurance data in the theoretical framework in Chapter 2 prove to matter in the case studies (Block A: Design process; Block B: Characteristics of the Quality Assurance System; Block C: Nature of the implementation process; Block D: Features of the school organisation).

The design process block has the least influence. The only design characteristic that seemed to matter in the case studies is *the degree of involvement of school staff* in the design process, or in the acquisition of an already existing Quality Assurance System.

The characteristics of the Quality Assurance System (Block B) seem to have a stronger relationship with the review process: *the wide coverage of quality aspects, and the wide involvement of relevant stakeholders in the Quality Assurance System* are important. These findings give the impression that in the eyes of school staff a Quality Assurance System is more credible if all stakeholders can give their views on the quality of the functioning of the IVET provider, and if a variety of quality aspects is included in judging institutional quality.

The fact that these two aspects of the Quality Assurance system are related to the success of the review stage raises the cause–effect question: is more successful review caused by a more wide inclusion of a variety of quality aspects and relevant stakeholders, or does a stronger focus on Quality Assurance including the review process lead to a more widely developed range of Quality Assurance aspects, and to more involved stakeholders? This dilemma applies to all factors having a relationship with the review stage and cannot be solved in this type of research, which asks for caution in drawing conclusions about (the direction of the) relationships.

Some procedural aspects of Quality Assurance also have a relationship with the intensity of the review stage: *the range of methods used for collecting Quality Assurance data* (more is also better here), *spreading data collection over time*, *the regular and timely distribution of Quality Assurance finding* , and the *staff effort invested into Quality Assurance*. The first procedural factor is similar to the factors discussed already (wide coverage of quality aspects and stakeholders) and each of those three factors maybe explained similarly: a more wide coverage of quality perspectives, stakeholders and data collection methods probably makes quality findings

more credible. In terms of the first framework in Chapter 2: it makes the information more valid, reliable (factors B1 and B2), and relevant (factor B4).

The other mentioned procedural factors related to successful review are on the one hand related to the burden Quality Assurance puts on staff (preventing too much of a burden, by spreading data collection in time), and the staff resources the school invests into Quality Assurance (enough staff effort, or not), and on the other hand to enabling the utilisation of Quality Assurance findings by distributing these regularly and in time. Quality Assurance proves to be a time consuming enterprise and cannot just be done next to all regular activities; it requires in other words that schools and their staff really invest in it and look for ways of burdening staff as little as possible.

It may sound strange but although schools collect all kinds of data in order to form a basis for improving performance, this does not necessarily mean that these data once collected and processed are distributed regularly and timely among the target group to promote data use for decision-making. In those IVET providers where the distribution of findings is not a problem the review activity is also more successful.

The last Quality Assurance System aspect enabling review is of a somewhat different nature than the ones discussed so far: *the degree to which the goal of introducing and implementing a Quality Assurance System is clear* to all affected by it. It makes sense that an important prerequisite for the successful introduction of an innovation is that IVET provider staff know why this is done, which effects are intended, which activities it implies, and what is expected from them. If that is not the case staff will have to contribute to some vague activity of which the relevance is obscure to them, and for which they are probably not very motivated.

That the motivation of school staff plays an important role in Quality Assurance is also shown by an aspect of the 'School Organisation' (Block D), namely *the extent to which school staff is motivated for Quality Assurance* and for promoting student performance. This probably means that in those cases where teaching staff in general want to do as much as they can to bring students to the highest possible achievement levels they see Quality Assurance as an instrument which can support them in accomplishing this goal.

Another aspect of the school organisation that seems to matter for the review stage is also of a motivational nature; however, whereas the previous factor concerned the intrinsic motivation of staff, this factor motivates staff probably more extrinsically: *the pressure to improve*. External powerful bodies like the Ministry, or the Schools Inspectorate can effectively exert pressure on underperforming schools to improve their performance because the schools depend on them in terms of resources. Possibly a similar kind of pressure could come from parents who are not satisfied with the school outcomes and therefore demand better results.

In the literature on educational innovations the combination of two factors is considered to be effective in implementing innovations: some sort of pressure to change and improve, in combination with providing support where necessary in transforming old into new. The relevance of supporting change processes is also confirmed in the REVIMP findings in two ways. If principals encourage their staff to participate in and invest in Quality Assurance, then review activities are more

successful. The other support factor has a constraining impact: training users in the background, and required skills proved to be too limited in the case studies to prepare users well for Quality Assurance.

Not only has *the lack of training*a constraining effect,*the lack of resources* to work on Quality Assurance, and the limited involvement of staff in Quality Assurance also form barriers for successful review. Quality Assurance is a complex activity which presupposes the motivation to invest in it, and it requires complex skills to collect and interpret data just as skills to diagnose problems and to design and implement remedies. Thus, the need for staff training is evident, and it is surprising that training receives so little attention. For training to be successful a short one shot training is probably insufficient; training school staff in utilising Quality Assurance data for changing, developing and improving the institution should be a longer term enterprise during which staff may need support and training on a more regular basis.

9.4.4 Non-confirmed Factors

As mentioned before not all factors included in the theoretical framework were confirmed in the case studies as having an enabling or a constraining effect. This may be due to several causes (e.g., sample, or measurement characteristics, or the factors simply do not matter).

The Quality Assurance System characteristic '*Absolute and/or relative performanc*e' did not explain differences in the review activities probably because benchmarking (information on one's performance relative to the performance of others) was almost non-existent in the case studies. In most cases schools collect information about their own functioning based on the views of their core actors (teachers, students, parents) without having similar comparable information about other schools. As has been mentioned above, in the cases studied staff were not aware of their level of performance in terms of students' achievement levels. This may be due to the fact that IVET in many countries does not have the central examinations general secondary education has. Due to this it is difficult for schools to evaluate how they are performing compared to similar schools (similar in terms of the characteristics of their student body composition: e.g. socio-economic status, gender, student entrance levels).

*Accessible information*is another non-confirmed factor. No problems with accessing the available Quality Assurance information were observed, and, as a result there was no variation in information accessibility, which means that the factor cannot explain review differences. Part of the explanation may also be found in the fact that no school/student performance estimation was available to schools, as this kind of information is usually of a statistical nature and therefore may cause interpretation problems for school staff.

Just like the non-existence of benchmarking, *Problem solving support from a QAS* in the practice of the Quality Assurance Systems studied was not something that played a role. Quality Assurance Systems providing some sort of support in

solving problems with working with the QAS (like computer-assisted information systems can do) simply were not available in the case studies. The relevance of human support in dealing with Quality Assurance (e.g. in the form of user training) has been stressed already.

The same goes for the implementation process characteristic '*Monitor implementation consistency and effects'*.The reason for inclusion of this factor in the theoretical framework is that educational institutions are often portrayed in the literature as organisations which are not very powerful in making decisions and in implementing these. Other innovation projects in education have shown that the attention to whether the intended innovation really is carried out as intended and consistently throughout the organisation (i.e. in as many grades as possible as this will strengthen the impact of the innovation) and which effects the innovation has (important for timely corrections where necessary) contributes to innovation success. In very few of the cases studied this monitoring activity was observed and thus this factor did not explain review differences between schools. Therefore, the influence of this factor on the effects of implementing a Quality Assurance System remains unsure.

Some school organisation characteristics included in the theoretical framework have been addressed already above. *'School performance level'* does not play an important role in Quality Assurance as the schools in general were not aware of their performance level in terms of how much the school adds to students' school entrance levels in comparison with similar schools.

Two other factors also did not explain review differences: *'learning-enriched, impoverished schools'* and *'high/low reliability schools'* which may be caused by the fact that most respondents gave vey positive answers, i.e. indicated that their institution possessed most of the characteristics of learning-enriched and high reliability school organisations. It seems quite unlikely that all institutions really functioned according to these organisational concepts (socially desirable answers) but the responses make it impossible to draw conclusions about the impact of these factors.

9.4.5 From the Case Study Findings Towards Guidelines

Based on the results from the case studies in the six project countries draft guidelines for Quality Assurance were designed and tested in all countries under the same group of IVET providers (about 30 cases) that had been involved in the initial data collection (the test of the theoretical framework).

The test of the draft guidelines focused on their relevance and feasibility for IVET providers. Based on the test results, the final, English version of the guidelines has been developed (see chapter 10 for this version of the guidelines) which thereafter was also translated into guidelines in the languages of all participating countries (see www.revimp.org for the various versions of the guidelines). The guidelines have been disseminated widely among the various target groups.

It is our hope that European providers of IVET for the health care sector will benefit from the guidelines in such a way that the guidelines will support them in

strengthening the positive impact of their Quality Assurance activities on institutional functioning.

The Technical Working Group "Quality in VET" based on our findings, may elaborate its Common Quality Assurance Framework (CQAF), which, so far, is rather abstract with regard to the review stage. Institutes for training VET practitioners with respect to Quality Assurance may also benefit from the guidelines, as training and external support will be vital for assuring its successful implementation.

Very little empirical knowledge is available on the critical success factors for the review stage in Quality Assurance. It is our hope that this EU-funded Leonardo da Vinci project has reduced this gap to some extent.

Reference

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.

Chapter 10
Guidelines for the Quality Assurance of Vocational Education and Training in EU Countries

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10.1 Introduction

This chapter contains guidelines for the Quality Assurance of Vocational Education and Training (VET) in Europe. The guidelines are based on research into Quality Assurance within case study institutions providing healthcare VET in six EU countries: Denmark, Estonia, Germany, United Kingdom (England), Italy and the Netherlands. This research was undertaken by the EU-funded 'From Review to Improvement' (REVIMP) project team.

10.1.1 Definitions

Institutions: this term refers to schools, colleges, training providers and other organisations (including employers) that have responsibility for provision of VET programmes.

Quality Assurance (QA): can be defined as all activities carried out with the intention of ensuring institutional quality (e.g. collecting data on institutional quality and using the data to judge whether there is a discrepancy between the current and the target situation and, in the case of a discrepancy, taking decisions on how quality can be improved and carrying these actions out).

Quality Assurance Systems (QASs): this term refers to systems that have been designed and built to support the collection, processing and presentation of data relating to institutional quality.

Review: takes place once information about the quality of the institution and the education it provides has been collected. In the review stage of QA, decisions are

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taken on whether improvements should be made and, if this is the case, what changes should be implemented and how.

10.1.2 Use of the Guidelines

The guidelines are a resource for managers of VET courses and their staff. The case study evidence showed that differences between the institutions and their courses were accompanied by significantly different systems and approaches to Quality Assurance.

As a result, it is understood that guidance for Quality Assurance must be flexible enough to take account of the varied contexts not just of the institutions studied, but of those institutions across Europe for whom this guidance is intended. The guidelines are therefore designed to be used as a flexible tool in the development and review of procedures for QA.

10.2 The Guidelines

10.2.1 General Guidelines

1. QA should be embedded in institutions' general policy, rather than being an isolated activity.

In the institutions in which this is the case there is no separation between general policy-making and policy-making regarding Quality Assurance. Quality Assurance is part of general policy-making, which means that the Quality Assurance finding are translated into school-wide measures to optimise the functioning of the institution.

2. Institutions should state explicitly the main purpose(s) of the QAS, as this has implications for the design of the QAS. The objectives could include: external accountability; institutional and course improvement; certification, or a combination of these.

Whereas accountability may require a limited number of indicators that reflec institutions' level of performance, institutional improvement will require detailed insight into the location of underperformance and its causes as a basis for the design of the remedy.

3. It can be helpful to share QA information, practices and tools between institutions.

This can help institutions to learn from one another, to avoid mistakes and to conserve resources. This requires the creation of links with other institutions and the planned allocation of time and money.

10.2.2 Design of QAS

4. When working on QA it is important to begin by formulating the institutional and course objectives, then to determine the purpose of the QA in relation to those objectives and, next, to determine the content of the QAS. This ensures that the QAS is rooted in the organisation and the data collected is relevant to the institution.
5. Institutions should consider involving relevant stakeholders such as staff, employers and learners in the design/adaptation of the QAS.

Involving stakeholders can have advantages for QA, such as enhanced motivation and ownership.

6. If an externally developed QAS is used it should be adapted to the context of the institution.

This can improve relevance, ownership and, as a result, usage of the QAS.

7. Institutions should consider to what extent their QA tools are valid and reliable, and try to improve them if necessary.

As some institutions will not have access to the skills necessary to determine this, internal staff development and/or external specialist support may be required.

10.2.3 QA Indicators

8. Institutions should use QA indicators that are appropriate to their context.

Some examples of indicators are: learner satisfaction with the courses offered; the percentage of learner drop out; employer satisfaction regarding the skills of learners; learner achievement rates; employers' opinions on the quality of the course material used and the percentage of qualifie teachers.

9. Learner-related indicators should constitute the core of the QAS (e.g. learner achievement, learner satisfaction, learner attendance, and other learning-related aspects).

Institutions whose QA leads to improvements to their programmes of learning have access to a good range of QA information relating to learners.

10. Learner-related indicators should be supported by a range of other quality indicators.

Examples of such indicators are: teaching quality; the quality of learner assessment; employer needs, and the quality of resources.

11. Institutions should consider the relationship between indicators for classroom-based learning on the one hand and work-based learning on the other.

Institutions should, for example, decide whether they would like to use the same indicators for both contexts.

12. Where institutions are externally evaluated (e.g. through inspection, certification, or accreditation), they should consider to what extent it is useful to align with external indicators, and to what extent they need additional internal indicators for QA and improvement.

The benefit of this analysis could be increased efficienc , and the identificatio of additional indicators that would assist improved QA.

13. Institutions should consider setting themselves targets against each of the QA indicators.

Examples of performance targets could be: a specifi percentage of learner drop out; desired student achievement levels, or a specifi level of student and teacher satisfaction.

10.2.4 Data Collection, Processing and Distribution

14. Successful review improvement requires a careful choice of data collection methods.

Methods may include:

- learner satisfaction questionnaires
- questionnaires for work placement employers, and for employers who have recruited newly qualified learners
- learner portfolios and workplace diaries
- lesson/training observations
- learner interviews
- peer review (whereby institutions review each other)
- alumni questionnaires and interviews
- teacher and parent satisfaction questionnaires
- collection of information on learners' destinations after completion of studies, and their position in the labour market
- collecting and analysing data on learner completion and achievement rates
- data collection [for the creation of] benchmarking indicators (making comparisons with similar institutions on the basis of relevant indicators).

15. Institutions should give full consideration to stakeholders' information needs and whether the same amount and type of QA information is distributed to all.
16. It is important that QA data are distributed promptly and regularly to relevant staff.

Prompt distribution of data enables timely responses and longitudinal analysis of data. Regular distribution of data helps QA review to become a normal part of staff tasks and duties.

17. QA information on the quality of a course should, ideally, be available to staff *during* the course.

This helps in identifying and dealing with problems quickly, and in responding to learner needs (e.g. ongoing forms or discussion, mid-course attendance and attainment data).

18. Institutions should consider publishing QA information on their websites for use by staff, employers, learners, parents and other interested stakeholders.
19. QA data should be presented in a user-friendly way. These could include text, tables and graphs.
20. Staff should be encouraged to interpret and discuss the QA information and, based on that, to develop improvement activities.

10.2.5 QA Implementation

21. Institutions should minimise the burden of QA for staff and ensure that there is a clear division of tasks and responsibilities amongst staff.
22. Institutions should inform each stakeholder of the QAS objectives and procedures in relation to their role.
23. As time and resources are limited, a step-by-step approach to implementation is recommended.

Institutions could, for example, focus on some elements of QA in one year and then add others in later years.

24. Institutions should try to establish a culture in which staff and students feel responsible for QAS and in which the primary goal is improvement.
25. Institutions should consider which QA staff need to be trained in QA skills such as the interpretation of data, the diagnosis of problems and the development and implementation of improvement activities.
26. As much technical and administrative support as practicable should be provided in QA data collection, processing and presentation.

Of course, this will depend on the available resources. For example, larger institutions have access to resources at a central level. This allows them to support the activities of units at lower levels.

27. Institutions should systematically monitor whether the decisions on improvement activities are being carried out, and how much impact they are having.

Too often plans for QA are developed and implemented only to a certain extent and in a certain way. It is important to monitor whether the whole organisation (instead of only a few units) works according to the plan and, if this is not the case, to correct omissions where necessary. If all units work as planned, the impact of QA is probably much stronger, as the various parts of the institution reinforce each others' efforts.

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