Jessica Blings & Michael Gessler (Eds.)

Quality Development and Quality Assurance with Labour Market Reference for the Vocational Education and Training System in the Metal Sector

Results of the European Leonardo Project QualiVET

Jessica Blings & Michael Gessler (Eds.)

Quality Development and Quality Assurance with Labour Market Reference for the Vocational Education and Training System in the Metal Sector

Results from the European Leonardo Project QualiVET

Analysis reports from Austria, Czech Republic Germany, Netherlands, Slovenia, Spain and United Kingdom

with contributions from

Austria
ibw - Institute for Research on Qualification and Training of the Austrian Economy

Czech Republic
NUOV - National Institute of Technical and Vocational Education

Germany
biat - Berufsbildungsinstitut Arbeit und Technik
ITB - Institute Technology and Education

Netherlands
Revice - Center for Work, Training and Social Policy

Slovenia
CPI - National Institute for Vocational Education and Training

Spain
UAB - University Autonomous of Barcelona, Dep. of Applied Pedagogy

United Kingdom
Coleg Morgannwg

Content

Introduction by the editor of the *Evaluate Europe Handbook Series*

This study is the third publication in the series *Evaluate Europe*. The series presents different evaluation concepts and methodologies – in particular in the context of European cooperation. The series has been initiated by researchers at Institut Technik & Bildung (ITB), University of Bremen and is managed by an international editorial board.

The present study with the title "Quality Development and Quality Assurance with Labour Market Reference for the Vocational Education and Training System in the Metal Sector" analyses the introduction of quality assurance systems (QAS) in different European countries. Recently the introduction of QAS has been given a high priority in vocational education and training (VET) systems all over Europe. By introducing QAS the VET providers seek to assess the efficiency and the use of resources – both from the organisational perspective and from the view of individual users. However, in different VET cultures this aim is linked to different challenges. In countries that have dual systems of apprenticeship the introduction of QAS is not only a matter for vocational schools. The assessment has to take into account also the training enterprises. In Germany the introduction of QAS is related to a major shift from the traditional input-oriented quality awareness to more output-oriented approaches on the quality of VET. In some other countries output-oriented assessment patterns have been a major feature of the VET culture for a longer time (e.g. in the United Kingdom).

In the light of the above it is clear the diverse countries have been introducing different systems. Some systems (e.g. ISO 9000) have developed for industrial and production-related uses. Therefore, it is problematic to transfer them to teaching, training and learning contexts. Other systems have primarily developed for educational and training providers (like e.g. the Swiss-based Q2E systems). In these cases self evaluation is considered as a key element for the quality improvement activities.

It is worthwhile to emphasise that quality systems deliver procedures and know-how, but not yet the desired quality itself. Yet, with well-adjusted quality systems it is possible to raise awareness on 'quality of VET' and on related issues. This means that teachers (at vocational schools) and trainers (at the workplace) have to be involved into a dialogue on quality criteria and on appropriate measures to improve quality. Yet, not only the involvement of the persons into a participative process provides a challenge but also the steering of the process to a direction that leads to sustainable improvements.

This study was produced as an analysis report of the European cooperation project QualiVET (funded by the European Commission under the action programme Leonardo da Vinci). The project studied quality development and quality assurance systems in the VET systems of seven countries and with a particular focus on the metal sector. The countries that participate in the study are Austria, Czech Republic, Germany, the Netherlands, Slovenia, Spain and the United Kingdom. The country studies carried out by the partners focused on the following questions:

- What kind of progress have the European countries made with their research & development activities related to theme 'quality in VET System with Labour Market Reference in the Metal Sector' so far?

- What basic concepts and methodological approaches have been used?

- Where are the development prospects for improving the school organisation, the teaching/learning arrangements and the participation of teachers and trainers?

- Can the QAS stimulate the trainees (= the vocational learners) to become co-contributors to quality improvement in VET provisions?

Looking at the experiences of different pilot activities it appears that the critical success factor for the quality improvement is the commitment and participation of the actors in the field – the teachers and the trainers. Some examples highlight also the crucial role of trainees' participation. In recent international literature several aspects of quality systems have been examined in great detail (see Rauner & Maclean[1]). Yet, the conclusion tends to be that a QAS can support organisational change only when it is linked to a participative process that really involves the actors in the field.

Ludger Deitmer
University of Bremen, ITB

---

[1] Felix Rauner (Eds.) (2007): International Handbook of Vocational Education Research. Dordrecht: Springer International (in print) here the chapter on evaluation and quality assurance by contribution from Dick/Wehner, Deitmer, van Buer, Gonon und Kurz.

1 The project QualiVET - background and research concept

Jessica BLINGS, Michael GESSLER

Universität Bremen, Institut Technik und Bildung, Am Fallturm 1, 28209 Bremen

This report deals with quality development and quality assurance at vocational schools, colleges and training centers (here after: VET institutions). For improving the learning provisions, teachers and trainers must be considered contributors to quality improvement. This project will give methodical support for the development and assurance of the quality of learning provisions. The coordination between demanding learning provisions and means to assure quality can be achieved through various quality management systems.

There are two major reasons why quality assurance in vocational education and training (VET) is gaining more importance in Europe:

(1) Due to the Copenhagen process, the European Union has committed itself to promote the quality improvement of VET systems as a major policy priority.

(2) Due to global competition, VET systems are becoming involved in internationalization. Among the main industrial sectors in Europe, the implementation of quality assurance systems has lead to an increasing demand on product quality and the quality of HRD.

VET institutions will be allowed in a short time to act with a high level of autonomy, yet they are not obliged in some countries to prove their ability to further develop that quality. VET institutions are increasingly supported by quality management systems. These have already proven that they are suitable for administration or industry; however they seem less qualified to be adopted for vocational and educational training purposes. While quality management systems such as ISO 9000:2005 or EFQM explicitly approach organisations they do not genuinely address the quality of learning offers.

An avid discussion around quality issues in the industrial context (since the 1990s) has resulted in the prospective VET quality. Quality assurance and quality development should not exclude each other. It is possible and advisable to maintain a balance between quality development on the one hand and quality assurance on the other. Thus, the most important target to achieve is a quality management system for VET in the metal sector which is capable to both develop and maintain the quality of learning offers.

The QualiVET – Project (Quality development and quality assurance with labour market reference for VET systems in the metal sector):

The project was launched on October 1st, 2005. It involves eighteen partners with diverse backgrounds. Among them there are research institutes, vocational schools and training centers and enterprises from seven European countries. The project's focus is quality assurance and quality development in vocational education and training in the metal sector with labour market orientation.

Over the recent years, it could be observed that VET institutions had to take over responsibility for the competitiveness of their national economies and that a higher quality of vocational training was demanded on a European scale. Furthermore, the partners could agree that a pilot project should be initiated to deal with quality assurance and development.

Especially the evident shift from manufacturing tasks to knowledge-based services, including the change in qualification requirements, had a strong influence on the decision to perform the project within the metal sector. VET institutions face a great challenge regarding learning quality, due to new learning offers which are embedded in the initial training and a substantial change of both qualification and job profiles.

As a matter of fact, the current quality management systems do not cover the needs of vocational education and training, nor do they take charge of the quality of learning offers. Thus, action is imperative. In order to improve the quality of learning offers and surrounding structures it is of utmost importance to introduce a quality development system which is able to coordinate these key factors. Therefore, quality indicators are needed to assess the learning offers and the methods to secure the implementation, use and success of the new system, which shall support trainers to identify new quality demands that result from higher-ranking requirements, e.g. curricula. By means of the resulting "bottom-up" process, the learning offers can be held against different quality indicators and can be continuously improved.

But: The situation in the countries is different.

In some countries (e.g. Austria) the implementation of the quality development and assurance system is based on an informal character and it is not compulsory. In other countries (e.g. UK) there already exists a tradition of (compulsory) managing and improving quality.

In a European context, looking to other countries means learning from differences.

Country reports

The country reports are concerning the analysis of the development status of the introduction of industrially marked quality management systems in VET with regard to work orientation.

Furthermore the results have been assessed by considering the reference framework for quality assurance of the Technical Working Group (TWG).

In the context of the QualiVET project every partner analysed the quality management concepts applied to the VET of their country. The research concept consisted of two main elements: sector analysis and case studies.

Sector Analysis

The aim of the sector analysis was to get an exact image of the success of quality management in VET within the metal sector of the countries. The survey concentrated on topics such as:

- structure and characteristics of the sector,
- economic development of the sector,
- institutional and economic structures,
- qualification strategies, concepts for initial and continuing vocational training,
- contemporary change processes (previous approaches, future developments)
- legal background of quality management in VET and
- applied quality management systems in VET (role, status, problems, discussion).

The research instruments used were document analysis (VET research reports, school projects and other sources) and expert interviews (trade union, trade association, school inspection).

Case Studies

For the case studies semi-structured interviews with different levels at school (management, school managers/leaders, instructors/ teachers and representatives of companies) were applied.

A case study concentrates on a VET institution and its cooperation with companies within the metal sector. In the course of a case study and with the aid of basic questions semi-structured specialized interviews and expert interviews were carried through in different fields of work and levels of the studied VET institutions.

Apart from basic data, the role of existing quality management systems as well as status, problems, previous approaches, outcomes, suggestion for actual quality management applications were in the focus of the interviews.

In addition, the assumptions of the interview partners concerning the future development of quality management were noted. Furthermore, interviews with key persons and institutions in the environment of the schools (e.g. companies) were conducted. The course of these interviews and their results as well as company data and further information on the firm and the sector will be documented in the case studies.

On the basis of two case studies the results of interviews with representatives of school management, teachers, students and QM-responsibles will be presented.

The analyses carried through were supported by the national subpartners in the countries (VET schools) and advisory board members (experts for quality management in VET).

Country reports within this publication

The research results within the QualiVET Framework are summarized within this publication. The reports are focused in statements on strong and weak points of quality management within the sector, the legal framework conditions, the future development, the situation in the field of employment and qualification and other relevant aspects.

The findings are the summary of the research results which by further developments of the QualiVET project group will result in a European approach on Quality Management in VET for the Metal Sector.

The development status of the introduction of industrially marked quality management systems in VET with regard to work orientation was identified. Furthermore, the results have been assessed by considering the reference framework for quality assurance of the Technical Working Group (TWG).

The following questions guided the work of the national experts while preparing the first QualiVET report and focusing their research results:

Status

- When have the discussions around Quality Management been started?

- Which aims and intentions are connected with the discussion of QDS/QM?

- What intentions are in the focus of educational politicy and schools when they consider the implementation of QDS/QM systems?

- Which role do QDS/QM systems play for schools in the VET field in the partner country?

- Which meaning/significance has the topic "Quality Development" for VET schools?

Activities

- What has been done and tried in the past (in terms of programs, instruments, methods…) in order to increase the quality of schools and the process of learning and teaching?

Presence discussion

- Which Quality Development System / Quality Management System is predominant in discussions?

- Which elements and instruments of these systems are suggested to be important and why?

- To which extent are systems implemented at the moment?

The Metal Sector – Requirements and Needs for Teaching and Learning General/structural aspects and expert opinions with reference to labour market

- Teaching and learning outcomes and processes

- Professionalism of teachers

- Leadership and school management

- School/ class climate and culture

- Outer relationships (e.g. companies/society)

Discussion and Conclusions

- Strong points in the current situation: What works well with previous approaches to quality and why?

- Weak spots in the current situation: What remains insufficient with previous approaches to quality and why?

- Opportunities for the future: What are the main opportunities for the future?

- Risks for the future: What are the main risks for the future?

We hope that our contributions provide a fruitful basis for further discussion

Projekt Data

The project is being supported by the Leonardo da Vinci II Pilot Projects of the European Union.

Name: Quality Development and Quality Assurance with Labour Market Reference for the Vocational Education and Training System in the Metal Sector

Acronym: QualiVET

Duration: 01.10.2005 - 31.10.2007

Project Management: ITB – Institute Technology and Education, University Bremen

Project partners:

Austria: ibw - Institute for Research on Qualification and Training of the Austrian Economy

Czech Republic: NUOV - National Institute of Technical and Vocational Education

Germany: biat - Berufsbildungsinstitut Arbeit und Technik, University Flensburg

Netherlands: Revice - Center for Work, Training and Social Policy

Slovenia: CPI - National Institute for Vocational Education and Training

Spain: UAB - University Autonomous of Barcelona, Dep. of Applied Pedagogy

United Kingdom: Coleg Morgannwg

2 Fundamentals and principles of the European Common Quality Assurance Framework (CQAF)

Michael GESSLER

Universität Bremen, Institut Technik und Bildung, Am Fallturm 1, 28209 Bremen

Context

The Education Council endorsed in May 2004 the Common Quality Assurance Framework for vocational education and training (CQAF) [1]. A Technical Working Group (TWG) developed the CQAF within a two-years programme (2003-2004). The Framework is a result of the "Copenhagen Declaration" from November 2002. In the "Copenhagen Declaration" the European Ministers of Vocational Education and Training and the European Commission agreed on main priorities to enhance cooperation in vocational education and training. These priorities are [2]:

"Transparency, information and guidance

- Increasing transparency in vocational education and training through the implementation and rationalization of information tools and networks, including the integration of existing instruments such as the European CV, certificate and diploma supplements, the Common European framework of reference for languages and the EUROPASS into one single framework.

- Strengthening policies, systems and practices that support information, guidance and counselling in the Member States, at all levels of education, training and employment, particularly on issues concerning access to learning, vocational education and training, and the transferability and recognition of competences and qualifications, in order to support occupational and geographical mobility of citizens in Europe.

Recognition of competences and qualifications

Investigating how transparency, comparability, transferability and recognition of competences and/or qualifications, between different countries and at different levels, could be promoted by developing reference levels, common principles for certification, and common measures, including a credit transfer system for vocational education and training

- Increasing support of the development of competences and qualifications at the sectoral level, by reinforcing cooperation and co-ordination especially involving the social partners. Several initiatives on a community, bilateral and multilateral basis, including those already identified in various sectors aiming at mutually recognised qualifications, illustrate this approach.

- Developing a set of common principles regarding the validation of non-formal and informal learning with the aim of ensuring greater compatibility between approaches in different countries and at different levels.

Quality assurance

- Promoting cooperation in quality assurance with particular focus on the exchange of models and methods, as well as common criteria and principles for quality in vocational education and training.

- Giving attention to the learning needs of teachers and trainers within all forms of vocational education and training."

While the Europass (priority "Transparency, information and guidance"), the EQF European Qualification Framework (priority "Recognition of competences and qualifications") and the ECVET European Credit System for Vocational Education and Training (priority "Recognition of competences and qualifications") are being intensively discussed, the CQAF Common Quality Assurance Framework (priority "Quality Assurance") has not achieved the same publicity. The Education Council invited in 2004 the Member States and the Commission to promote the CQAF on a voluntary basis within their competencies.

In December 2004, at the meeting of the Council with representatives of the member states, it was agreed to increase "the relevance and quality of VET through the systematic involvement of all relevant partners in developments at national, regional and local level, particularly regarding quality assurance" [3].

In October 2005 a European Network on Quality in VET (ENQA-VET) was finally established as a voluntary forum. In the ENQA-VET stakeholders network and exchange their experiences. The Commission (DG EAC) monitors the network with the assistance of Cedefop.

The Common Quality Assurance Framework

Quality: context-dependent

The TWG defines quality as "context-dependent, i.e. without a concrete context it would be difficult (and meaningless) to define quality. But when you know the context, you can make the following broad definition of quality more specific: Quality = fulfilment of goals. One achieves quality when the activities fulfil the goals. This can be expressed in another way: Quality = Experience – Expectations. To take any advantage of this definition we need a clear description of the context. This description has to include goals, experiences and expectations from a number of different actors. When we have a clear description of this context it is possible to talk about and work with these definitions of quality." [4, p.4].

Quality is therefore defined as the relationship between experience and expectation and is of subjective and context-dependent nature. [4, p.5]

Based on questions

Starting with this general definition, the initial work on creating a Common Quality Assurance Framework in VET should then consist of specifying and to operationalizing quality and on finding answers to the basic question: What does quality mean in the context of VET? But: Because of the context-dependency of quality the TWG changed their purpose: "Our initial aim was to provide a systematic overview of these answers and examples of practice. But given the huge number of contributions and the wide variety of answers and examples of practice, continuation of this approach would be problematic. But what alternative was there? Instead of focusing on answers, the solution found was to focus on questions - questions that pinpoint the key issues in the work on quality in VET. Using this approach it was expected that the model would be more acceptable to all Member States as it makes it possible for the Member States to keep their own quality approaches and at the same time for the focus to be placed on a limited number of common questions." [4, p. 8]

To keep the framework as simple as possible the TWG addressed only a limited number of context-independent (!) questions [4, p.10]. "The questions are not context dependent, i.e. it is possible to ask the same questions at both levels, although the answers are expected to differ between the two levels." [4, p.3]

Reducing complexity

The CQAF "can be seen as major principles to follow or as 'meta-standards'." [4, p.19]. The starting points were a number of specific contributions from the Member States and the two major quality management approaches: ISO and EFQM. This leads to the European Common Reference Framework on quality in VET [4, p. 7].

But: Why should a new quality reference framework be developed? The work pursued the aim to build a "framework that at the same time both covers all the core criteria for promoting quality in VET and respects the different local choices within each Member State" [4,p.23] The new Framework should integrate the existing approaches and especially the Models of ISO and EFQM. The hope is that a special and easy approach will motivate more people to carry out work on quality in VET.

The TWG agreed on using the four interrelated elements "Plan, Do, Check and React" as a basic structure [4, p.7].

The European Common Quality Assurance Framework consists of four elements (1) Model, (2) Methodology, (3) Monitoring and (4) Measurement.

(1) Model

The model should facilitate (1) planning (purpose and plan), (2) implementation, (3) evaluation and assessment as well as (4) the review of quality assurance systems (feedback and procedures for change) at the appropriate levels in Member States on a systematic (5) methodology base (see figure 1):

Figure 1: CQAF Model
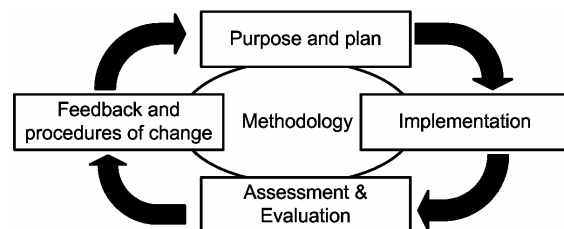
As mentioned above key questions have been formulated (see table 1).

Core criteria [4, p. 9]	Key questions [8, pp. 7-11]	Indicators and standards [4, pp. 9,19]
Framework step: **Purpose and plan**	1. Are your policy goals/objectives clear and measurable? 2. What are the goals/objectives of your system/institution in relation to VET? 3. Are the European VET goals (such as matching VET demand and supply, promoting access, accommodating the training needs of vulnerable groups) included in the goals you set? 4. How is it assessed the degree to which these goals/objectives are fulfilled? 5. Describe the procedure for the planning process within the quality approach in use.	*Possible indicators:* ▪ The existence of a quality management approach. ▪ Planned investment in training of trainers.
core criteria for quality: Clear purpose and consistent planning addressed to achieve the set aims. Existence of a systematic quality approach (in a broad sense).		*Examples of standards and norms:* Output standards on e.g. policy goals on dropout, further education, effectiveness of education, innovation, etc. and better quality for further education and VET.
Framework step: **Implementation**	6. How do you implement a planned action? 7. Describe the key principles in the procedure of the implementation process.	*Possible indicators:* ▪ Unemployment rates according to vulnerable groups. ▪ Participation rates (by group)
core criteria for quality: Existence of an implementation plan; allocation of resources and clear responsibility.		*Examples of standards and norms:* Input and process standards relating to staff qualifications, resources and curricula.
Framework step: **Assessment and Evaluation**	8. Describe your process for assessing: ▪ input ▪ processes ▪ output	*Possible indicators:* ▪ Successful completion of training. ▪ Destination of trainees. ▪ Utilisation of acquired skills.
core criteria for quality: Existence of a well-described assessment system and a systematic evaluation strategy. Use of a consistent and accountable methodology for both assessment and evaluation.	▪ outcome results 9. How do you ensure that your assessment and evaluation is relevant and systematic? 10. Which stakeholders participate in the assessment and evaluation process? 11. What roles do the stakeholders play? 12. When do you monitor, assess and evaluate (frequency)?	*Examples of standards and norms:* Input and process standards relating to accreditation of institutions/employers, testing criteria set by regulation.
Framework step: **Feedback and procedures for change**	13. How do you organise feedback and procedures for change in your organisation/system? 14. How do you ensure systematic feedback?	*Possible indicators:* ▪ Schemes to link VET to the labour market. ▪ Schemes to promote better access.
core criteria for quality: Visible and documented connection between feedback mechanisms (evaluation results) and planning process.	15. How do you make the feedback on quality in VET transparent? 16. How do you ensure that the results of the assessment/evaluation are being used? 17. How do you relate the goals/objectives to assessment and evaluation?	*Examples of standards and norms:* Comparing policy goals and output standards with the results from the assessments and evaluations.
Framework step: **Methodology**	18. In what way do you use a systematic quality assurance approach? 19. What is the role of self-assessment in your Quality Assurance approach? [7, p. 10] 20. Which stakeholders are involved in the different steps of your quality approach and in which roles?	*Possible indicators:*
core criteria for quality: Description of methodology (kind of 'standard procedure') exists.	in which roles? 21. Which tools and procedures do you use for data collection, measurement, analysis, conclusions and implementation? 22. How do you motivate the actors to play their roles properly? 23. What strategies assure the implementation of change? 24. In what way do you use external assessment?	*Examples of standards and norms:* International, national and local quality approaches.

(2) Methology – self-assessment

Self-Assessment is proposed as a relevant method/tool to assess and evaluate quality and to ensure and develop quality.

A guide for self-assessment was developed. This guide is primarily addressed to VET providers. It gives guidance on ways of performing self-assessment. Concrete quality criteria are named and explanatory statements illustrate examples from different VET systems. The guide contains also information about performing selfassessment at system level; in an overview different existing frameworks for self-assessment are shown. [7, p. 11]

(3) Monitoring – by third party

Self-assessment is an introspective method for quality assurance and quality development. This inside perspective should be combined by an external view, an external monitoring system. This monitoring should be independent (from the system or provider level). An external and independent system would strengthen the credibility, legitimacy and recognition of results of self-assessment. Monitoring may range from strict control to a more open control combined with voluntary peer review. [7, p. 11]. Third party verifications of quality systems could also be ISO 9001 certifications [7, p.12].

(4) Measurement – a common set of indicators

Besides the model, the proposed methology and monitoring the CQAF proposes also a common set of indicators which "cannot be linked directly to the different steps of framework as they have to be addressed in every step from different angles." [6, p. 9]

These indicators are:

1. Share of VET providers applying QM-systems respecting the European reference model for quality in VET by type of used approach

2. Investment in training of trainers

3. Unemployment according to groups

4. Prevalence of vulnerable groups

5. Participation rates in IVT and LLL (by type of VET courses)

6. Percentage of participants who started and successfully completed VET (by type of VET courses

7. Destination of trainees sixth months after training

8. Utilisation of acquired skills at the workplace, from the perspective both of the employer and the employee

9. (quality of) existing mechanisms to adapt vocational education and training to changing demands in the labour markets

10. (quality of) existing schemes to promote better access including orientation, guidance and support schemes

It is obviously that the indicators are recommended to VET providers and policy developpers. The context level (indicators 1,3,4,9), the input level (1,2,5,9), the output level (5,6) and the outcome level (6,7,8) are included. Even the indicators which are related to the process level (2,5,10) cannot lead a quality development process on a training and learning level / classroom level.

Discussion

As already mentioned, the purpose of the Technical Working Group has been to develop a Common Reference Framework for Quality Assurance in VET. The developed framework is, as the authors say, a meta-standard based on the PDCA-Cycle with context-independent key questions.

On the other hand, the TWG defines quality as context-dependent and "without a concrete context it would be difficult (and meaningless) to define quality." [4,p.4]. Therefore, if the model consists of context-independent questions and if, as the authors quote, quality is meaningless without a concrete context – of which nature is the Common Quality Assurance Framework (CQAF)?

An answer can be found in Annex 1 "The European Common Reference Framework and the two major quality management approaches: ISO and EFQM". The authors compare in figure 10 the CQAF with the models from ISO and EFQM [5]. It fits well. While ISO and EFQM are management-models, it seems that the CQAF is another management-model.

But do we need another model on the ISO or EFQM-Level? On the one hand, the CQAF Model has a simple basic structure which might be easier to understand as the structure of the other models. Also: For the CQAF Model the ISO quality definition is used in combination with a four-step quality development logic coming from the PDCA-Cycle (which is also used for the EFQM Model). Therefore it is a model-crossover definition. But: Is it possible to define quality as "fulfilment of goals" within a quality development process?

If the results at the step "Assessment and Evaluation" are measured in comparison with the objectives defined in step "Purpose and plan", the definition works. But: The special contribution of the PDCA-Cycle is the continuous quality improvement which is implemented in step four (feedback and procedures of change). That means that quality, in a process logic, should go beyond the targets and not only to fulfil the goals. But these are just details. The more important question is: Which special contribution does the CQAF-Model offer for the Quality Assurance in VET?

Surely a model on a management level is necessary to develop the quality of a VET-System. But: ISO offer this possibility and the possibility of system certification (external audit) as well, EFQM already includes the idea of self-assessment, and both systems are widely used in industry which can be a contribution to indicator 8 (Utilisation of acquired skills at the workplace, from the perspective both of the employer and the employee).

ISO and EFQM are driven by context independent key questions, and in this context independency creates the definition gap on how teaching and learning quality can be improved. Neither ISO nor EFQM tell about what quality means at a training level. And, CQAF does so neither.

Have the TWG authors reached the purpose to develop a CQAF for quality in VET? As the report shows, the authors are not satisfied with the achieved solution: "Due to the complexity of the world of education and the changing political focus, it is difficult to see a clear connection between plans, implementation, assessment and evaluation and feedback processes." [4, p.17] "It is still difficult to discern a clear link between the use of a quality approach on the one hand and the actual and the perceived quality in VET on the other. This problem is very complex and more research is needed." [4, p.21]

The difficult question, of what quality means in VET at a teaching level has not yet been answered. The consequence should be to develop a context-dependent quality development system.

Link between the CQAF and a QDS

The CQAF is designed for the needs of VET providers and policy developer. A Quality Development System at a training level would therefore create a different or third level.

How can a relation between CQAF and a QDS at a training level be built?

Poor link: Within the category "Methology" one question asks about the strategies which assure the implementation of change. A QDS at a training level could be understood as such a strategy.

Rich link: Another option would be to adopt the logic of the CQAF. This means that QDS could adopt the idea of the model (the CQAF-Circle), the idea of methology and the idea monitoring.

As described above, the 10 common indicators cannot be used at a training level. Therefore indicators which lead a development process at a training level with reference to a special domain should be developed within the QualiVET Project.

References

[1] Council Conclusions on Quality Assurance in Vocational Education and Training, 18 May 2004

[2] Declaration of the European Ministers of Vocational Education and Training, and the European Commission, convened in Copenhagen on 29 and 30 November 2002, on enhanced European cooperation in vocational education and training "The Copenhagen Declaration"

[3] Conclusions of the Council and the representatives of the Member States meeting within the Council (29 October 2004), reviewing the Council Resolution of 19 December 2002.

[4] Technical Working Group on Quality in VET: A European Common Quality Assurance Framework, Final Version, October 2003.

[5] Even if the report was published in 2003 the authors use the old ISO from 1994 as a reference. The renewed ISO 9001:2000 have a different and process-oriented structure and is not any more based on the in the report named 20 elements.

[6] Seyfried, Erwin: A limited set of coherent quality indicators proposed by the Technical Working Group on Quality, October 2003.

[7] Fundamentals of a Common Quality Assurance Framework (CQAF) for VET in Europe. Technical Working Group 'Quality in VET' (TWG), June 2004.

[8] Fundamentals of a Common Quality Assurance Framework (CQAF) for VET in Europe. Technical Working Group 'Quality in VET' (TWG), updated version, September 2005.

3 Country Report Austria

Helmut DORNMAYR, Birgit LENGER, Thomas MAYR

Institute for Research on Qualifications and training of the Austrian Economy
Rainergasse 38, A-1050 Vienna, Austria

Austria (lead-managed by the Federal Ministry of Education, Science and Culture) has developed quite well working and supporting instruments (labelled QIS and QIBB) to motivate and help Austrian schools, to engage in an on-going process of self-assessment and further development of school quality. But in contrast to many other countries, quality assurance and in-school evaluation is not compulsory. Therefore in-school evaluation and quality development in Austria, can be seen as still being rather informal.

3.1 Status, Activities and Current Discussion

Status

Subsequent to nine years general compulsory schooling, which lasts for nine years, the Austrian Education system can be characterized as follows: There are schools providing general education, but there is also a great variety of schools and colleges offering technical and vocational education and training (TVE). In principle, two institutional paths of VET may be distinguished between. Students who have completed their compulsory schooling period of nine years may either opt for an apprenticeship in the framework of the dual training system or continue their education at a secondary TVE school (berufsbildende mittlere Schule or BMS), which provides medium secondary vocational training, or at an advanced-level secondary vocational school (berufsbildende höhere Schule or BHS).

Training for an apprenticeship occupation is provided partly in a company and partly through part-time attendance of a vocational school for apprentices (Berufsschule). It is the task of these vocational schools to impart general education contents and to complement the occupation-specific knowledge and skills the trainees have been taught in the companies providing the training.

School based VET is characterized by a highly input oriented quality system with almost no output control (education and training standards are being developed). Internal evaluation is happening on a voluntary basis: QIBB, a VET quality initiative, as a currently launched quality project to motivate vocational schools/collages to join a school and quality development process.

In continuation of QIS (Quality in Schools), QIBB was created on the existing quality structure of the Austrian education system. QIBB aims to create a joint network of quality systems for all VET schools and colleges in Austria. QIS was limited to the school level, QIBB also involves the stakeholders (e.g. representatives of business sector) at all levels of school-based VET. QIBB is the creation of a quality network that comprises the whole Austrian school-based VET sector. It forms the joint basis for the safeguarding and further development of quality. The foundation of quality management under QIBB is the systematic planning and agreement on objectives, regular evaluations, and outcome-based and objective-oriented reviews among management levels. The first time QIBB was implemented via a comprehensive pilot project in the 2005/06 school year [1].

Apprenticeship training is also based on a mainly input-oriented and criteria-led quality concept. Young people may be trained only in recognised occupations requiring formal training. Regulations determine quality standards that have to be met (i.e. minimum standards) and cover the fields of curriculum, learning site (training companies, part-time vocational schools), training personal (trainers) and evaluation. For all these fields exist various instruments for quality assurance.

The basis for the curricula are the training regulations in form of decrees by the Minister of Economic Affairs ("professional profiles") that exist for approximately 250 professions. They regulate the name of the relevant occupation requiring formal training, the duration of training for the occupation and the skills and knowledge that relevant vocational training should lead to; guidelines for the teaching of skills and knowledge by subject area and instruction duration and criteria for examinations. Training regulations are co-ordinated with the framework curricula for vocational schools.

Other important instruments for quality control are the legal provisions for the suitability of a company to provide training and the qualification of the trainer. For both these aspects the apprenticeship offices at the Economic Chambers

act as the authority of first instance (they possess delegated competencies by the Ministry of Economic Affairs). Companies have to meet certain criteria in order to become training companies. They have to prove that they are able to cover all areas of a certain professional profile themselves or that they have a partner institution (e.g. another company) which can fill a possible gap. Furthermore a training company must have a qualified person to be in charge of the training. In order to qualify as a trainer in the framework of apprenticeship training, a person must carry a relevant qualification in the specific professional field (e.g. being a graduate of a relevant university course, a full time vocational school or an apprenticeship in the subject area in question) and they must prove that they have acquired the relevant pedagogical skills. In most cases this is done by passing a trainers examination at the apprenticeship office of the Economic Chambers and/or by completing a trainer with an integrated exam at a further training provider. Most of these courses are offered by Wifi and bfi, the training providers which are, respectively, affiliated to the Economic Chambers and the Chambers of Labour/trade union congress.

The most important tool of evaluations is the final apprenticeship examination. These exams are organised by the apprenticeship office at the Economic Chambers and held outside of the training company. The Vocational Training Act contains framework regulations for these examinations and the details as to subject matter etc. are set forth by the relevant training regulations. The exam consists of a practical and theoretical examination. Beside obligatory QA-instruments, many companies use voluntary QA-instruments like training-maps, participation in apprenticeship-competitions, intermediate exams, etc.

Activities

The "Qualitätsinitiative Berufsbildung" (VET Quality Initiative, QIBB for short) was launched in 2004 as a quality programme of school-based VET in Austria (lead-managed by the Federal Ministry of Education, Science and Culture). QIBB builds on recognised principles of modern quality management systems and complements established long-term procedures to safeguard the quality of the education system. It sees itself as part of the Europe-wide quality process, using the ideas of the Common Quality Assurance Framework (CQAF) and transferring them to national conditions. In its principles, the quality methodology adopted by QIBB is neither an invention of our times, nor have, in it's implementation, quality management

approaches from industry been transferred directly to the VET landscape. Various impulses have initiated numerous developments of quality-related approaches in the Austrian VET sector over the past few years. This variety is also to be seen as an expression of the complexity of the educational processes and of the large differentiation within the Austrian VET system. The above mentioned Quality in Schools project (QIS) has been a milestone in school-based quality development. QIS was launched in 1999 and included both, general education and vocational training, but was limited to the school level. This programme has contributed substantially to the development of quality awareness in schools and it has even had the result that schools were certified according to different standards (e.g. ISO or EFQM). As a continuation, QIBB weaves these developments into a joint network of quality systems for all VET schools and colleges in Austria.

The fulfilment of the control and steering task within the framework of education management is based on recognised management methods and valid legislation. Binding legal standards regulate wide areas of education work in great detail, so the processes in the education system comply with given rules. This applies to staff and pay legislation and partly to school legislation. The majority of quality-related approaches that have emerged in this setting are input-oriented and are in line with the concept that quality is guaranteed as soon as all major influential factors are controlled. This traditional form of quality assurance includes the following methods: adoption of target-oriented legal standards that have been coordinated thoroughly in extensive review processes (e.g. curriculum decrees or exam regulations), the obtainment of specific statements within the framework of approval processes (e.g. approval of school pilot projects) or selection procedures for recruiting staff for senior posts. Furthermore the professionalisation of managers among the teaching staff within the agenda of the Leadership Academy (and the Quality Academy, which was set up in connection with QIBB) is an example of input-oriented management.

In a vertical structuring the education management in the Austrian school system is managed on three system levels: the level of schools, of the regions (federal provinces) and the national level. At the national and regional levels, mainly input-oriented quality assurance takes place. Additionally, there exist approaches of output-oriented management at all levels, where relevant system parameters – like transfer rates at the crossing points of the education system – are documented, analysed and used for control

purposes. Another example of output-oriented management is resource allocation. This is basically connected to the number of training places, which means that resources are made available centrally on the basis of indicators relative to the training place.

Output-oriented quality assurance is carried out mostly at the regional level by school inspection. By observing output, conducting benchmarking measures, obtaining feedback and providing counselling services, development processes at teaching and school level are triggered and supported. For this purpose, QIBB makes available a nationally harmonised basis. Examples of output-oriented management at school level are the assessment of student achievements (performance appraisal) and the assessment of services provided by the teaching and administrative staff (service appraisal). Another traditional component of the quality concept is the involvement of stakeholders at all levels of school-based VET. Stakeholders include students and their parents, as well as people or institutions using VET services. Students, parents and teachers are involved in the planning of processes within the framework of school community boards. Statutory advisory boards, whose members are representatives of the business sector, have the function of cultivating contacts between schools and the world of business – at school level again.

"At the provincial and federal levels, current issues and decisions relating to the development of the education system are prepared by managers in cooperation with experts for the school system. Among the stakeholders, the social partners and the professional representation of teachers play a special part both in the institutional framework and on an informal basis." [2]

An expression of the openness of the education system to enhance the quality of the system by "learning from the best" is the participation in international competitions (e.g. EU Contest for Young Scientists) and international benchmarking. Austria has consistently taken part in OECD Thematic Country Reviews [3] (e.g. "Adult Education" or "Quality and Equity") and OECD international education assessments (e.g. PISA [4]) and IEA [5] for about ten years. This is able to release considerable potential for change, as responses to the PISA survey from 2003 have shown. Over the past few years there has been created more space for design by extending school autonomy and decentralising responsibilities at school and regional levels. At school level, this mainly affects teaching, at the provincial level this autonomy first and foremost relates to resource management. This is the starting point for QIBB,

which provides a scheme for systematic assurance and development of quality in the designing of this autonomy:

"In this way, the legality principle for school administration, which is bound by normative rules, is accompanied by the QIBB quality principles." [6]

The design of the QIBB quality initiative follows the logic of all recognised quality models and thus fundamentally corresponds to the Common European Quality Assurance Framework (CQAF) and the Common European Quality Assessment Framework (CAF). The key principles of these systems are the following:

1. Quality is a central aspect of planning and acting that is oriented towards creating benefits for the stakeholders, particularly for students.

2. According to the Plan-Do-Check-Act cycle processes are oriented towards continuous improvement; one prerequisite is that they are transparent and comprehensible.

3. Joint agreements on objectives are binding by nature; the commitment of employees is promoted by motivation and responsibility.

There are four additional QIBB principles referring to the Austrian school-based VET system and taking account of organisational and legal characteristics [7]:

4. QIBB forms the common quality framework for all VET schools and colleges. Its structure is simple, its functioning unbureaucratic and it supports fast implementation by providing well developed instruments.

5. QIBB is a network comprising six quality management systems, which correspond to the VET school types, which all have the same structure and whose contents also coincide where no specifications are required due to the characteristics of the school types.

6. QIBB is not limited to the school level but also covers the provincial level (mainly in the form of the school inspection) and the national level (above all in the form of the General Directorate for Vocational Education and Training of the Federal Ministry for Education, Science and Culture). This ensures that processes affecting several organisational levels are also included in the quality management process.

7. QIBB is an optimisation programme aiming to improve outputs of the educational processes within the framework of legal possibilities and using the scope within the structure; it is not necessary to change school legislation or school organisation to

implement QIBB, though this may prove useful in due course.

The quality management systems of QIBB provide scope for site-related supplements but have been elaborated in such detail that they may be implemented directly, that means without any independent system development. The substeps of the programme are Plan – Do – Check – Act (PDCA).

This PDCA cycle is implemented in all school types: "This cycle implies that to begin with a plan needs to be specified, in other words: objectives and implementation measures for effective improvements; planning instruments include binding legal standards as well as the common mission statement, the quality objectives derived from it and the work or school programme (with medium- and short-term development and implementation planning). Subsequently, the plan must be carried out via processes according to specified procedural instructions (process descriptions) within the framework of the legal, organisational and financial scopes and by using support structure if applicable. Thereafter, the impact of the initiated measures must be assessed and outcomes gathered. This substep is supported by QIBB, which makes available a web-based evaluation system with integrated standard evaluations. Additional feedback about the lasting impact of learning on students is also expected from the educational standards for VET, which are currently being developed. Finally results are analysed and presented in the quality report together with follow-up planning. These will then form the basis for the decisions about future improvement measures to be reached in the course of management and performance reviews."[8]

Implementation of QIBB was launched in the 2005/06 school year with a pilot scheme in some (full-time) business schools and schools and colleges for engineering and crafts. An independent project structure has been set up to support implementation; furthermore a specific training structure has been created by the school inspection, the in-service teacher training colleges and external companies. Within that training structure all in-service training measures are summarised under the term "Quality Academy".[9]

The implementation in part-time vocational schools for apprentices will follow at the latest in 2007/08.

Current Discussion

The Austrian Quality initiatives (QIS and QIBB) for school-based VET follow the principle of voluntariness. This fact includes advantages concerning motivation and acceptance but disadvantages concerning participation and common structures and levels of Quality Assurance. In Austria in-school evaluation and quality development can be seen as still being rather informal. Therefore very big differences exist at all levels: school-type (most advanced in (full-time) business schools and schools and colleges for engineering and crafts), provinces, schools and teachers. It often depends on single teachers, if they use instruments like self-evaluation etc.

So Austria differs from many other countries in the design of quality assurance and in-school evaluation, which is compulsory in more and more countries now. The programmes labelled Quality in Schools (QIS) and QIBB are important starting points as well – yet, they are not mandatory for schools.

The Metal Sector – Requirements and Needs for Teaching and Learning

Also there are a lot of secondary schools and colleges – the latter providing a highly qualified "Ingenieur" education including the "Reifeprüfung" Certificate and TVE Diploma as well as the higher education entrance qualification – in the metal sector, the significance of apprenticeship training for this sector is extremely pronounced. Nearly all of the persons employed at skilled workers' level (as well as many semiskilled workers) have obtained their qualifications via this training pathway. Entrepreneurs appreciate the dual training system (company-based training and part-time vocational school) because they are able to adapt the trainees' skills directly to company requirements. Concerning apprenticeship training the share of school-based training is about 25% (10 weeks per year). This relatively short time of staying in school makes the implementation of QA and QD-systems in these part-time vocational schools more difficult, complicated and time-sensitive.

Some of the main and specific challenges for teaching and learning in the metal sector represent the different levels and standards of ICT-use (e.g. CNC-machines) in the companies - primarily depending of the enterprise size and the concrete business operating area. For the part-time vocational schools this implicates very different base levels and requirements of their students as regards contents. It also implicates the need for a diversified, highly developed, actual and expensive technical equipment, which demands strong and close cooperation to the companies as training and possible funding partners and for getting permanent update information concerning technological developments and actual requirements of the labour market. On the side of the companies – especially

for SME`s without CNC-Machines etc. – it is often necessary to join training alliances and to intensify cooperation with partner-companies (clients, suppliers, etc.).

3.2 Case Study

Two case studies with part-time vocational schools in the metal sector were accomplished. One of the schools is located in Vienna the other one is situated in a more rural area (a small industrial town with less than 10.000 inhabitants). The case studies also included an analysis of the surroundings and frame conditions. Therefore interviews with social partners, companies and school authorities completed the case studies.

Teaching and learning

The case studies primarily show, that there do not only exist big differences in the extent of QA und QD-systems in schools but also in the definition of quality itself and in the aims of QA- and QD-processes. Quality of teaching and learning is defined according to the specific interests and aims of the different actors in the teaching and learning-process. For pupils/apprentices quality consists of a successful passing the final apprenticeship exam (FAE) and a positive employment outlook. Teachers often associate with quality in teaching and learning specific kinds of process efficiency and transparency as well as the reduction of preparation time and easier substitution of absent teachers (e.g. with the help of standardized teaching materials). Directors often expect from QA and QD-systems a better documentation of all processes, a better school climate and a higher school prestige.

The school management on federal and provincial level wishes a better working organisation and cooperation at all school levels (teacher-director-regional education board-federal ministry) and also in external relationships (e.g. to the social partners) and an increase of the motivation of teachers.

Companies wish from QA- and QD-processes higher qualified skilled workers (according to their specific needs) and the prevention of interruptions/breakdowns in actual work and order processing.

Professionalism of teachers

According to the voluntariness of QA- and QD-processes in Austria the professionalism of teachers mostly depends of the initiative, motivation and qualification of the single teacher. For example there is a school in our case studies, where only one teacher uses instruments like self-evaluation etc.

Leadership and school management

The motivation to implement QA- and QD-instruments and systems at the level of school management (school directors) in the analysed schools is rather high, but this has to happen very carefully, slowly and on a strictly voluntary basis. Although there were legal initiatives and regulations to strengthen school autonomy in Austria, the effective degree of autonomy is still rather low.

Most urgently it has to be indicated, that public schools in Austria do not have decisional competence in staff matters. They depend on good will of the teachers and on good cooperation with the authorities in charge. Other countries either transferred these issues to the respective schools (New Zealand, the Netherlands, Canada) or to the local level directly above (Finland, England) which employs teaching staff in cooperation with the school management. [10]

Also the Austrian teacher salary system – although it corresponds in its fundamental conception to the ones of most other countries - is highly complex in its concrete structures and it is marked by many rules and regulations and also by bureaucracy. "This mirrors the bureaucratic controlling system of Austria's school governance. The effectiveness of bonuses does not really show up the teachers' performance and dedication. Individual, performance-based (output-oriented) salary components ('performance bonuses') are hardly ever used." [11] Comparing the financial competences in the school system, one finds that many countries have considerably more budget to handle freely than Austria does. This freedom is respectively connected to accountability. [12] While Austria has general educational standards, detailed standards that allow for an output control are only now being tested. Many other countries, by contrast, have implemented output standards (the centralised nationwide school leaving exams in the Netherlands are de facto standardised performance tests), which are regularly checked in the form of nationwide tests. As regards the way of testing and how the results of individual schools are published, the countries differ: while for example in England, New Zealand and the Netherlands the reports are published, the schools alone get them in Finland. In Canada, both forms can be found, depending on the province concerned. Many countries boast a

central institution that is in charge of surveying student performance in the schools. The Austrian way – no nationwide, central school leaving exams, no standardised nationwide testing and merely sporadic inspection which mostly happens if there are reasons for it – can almost not be found in any other high developed country. [13]

Summarizing school autonomy looks quite different in various countries as regards its degree and fields of decision (the competences of the schools regarding curriculum design, organisation of schooling, recruiting and discharging teachers, further training for teachers, financial leeway, etc.).

"Austria has a comparatively bureaucratic, heavily regulated, hierarchic school governance model which is input-controlled and also characterised by federal elements. The top nations in PISA, however, have put into practice a much higher degree of school autonomy.

The central point of the ibw's assumption is that school systems which are geared to elements of New Public Management (devolution of competence from the authorities down to the school: school autonomy, performance standards), produce better student performance than school systems with bureaucratic structures." [14]

School/ class climate and culture

The case studies show a school and class climate which is rather well developed facing the difficult situation of part-time vocational schools, where students only spend maximum 10 weeks per year in school and where a high fluctuation is the rule. These challenging frame conditions for school culture and communication also determine organisational and logistical problems - as for example concerning the timetables or the simple fact, that students representatives have to be elected 4 times a year.

Outer relationships

The most important outer relationships of part-time vocational schools exist to the companies, where the apprentices are trained during the majority of their training period. From school`s perspective this relationship is sometimes seen to be ambivalent. On the one hand it is beyond any doubt regarded to be necessary for being on an actual and practically oriented state of work and teaching. On the other hand it is sometimes seen critically to react on specific requirements of companies instead of putting the focus on general and basic qualifications. Beside this discussion well functioning relationships to companies are extremely necessary for schools to finance new technical equipment.

3.3 Discussion and Conclusions

Discussion

The situation of Quality Assurance and Quality development in the Austrian VET-system focussing the metal sector can be summarized by working out the following strengths and weaknesses:

Strengths of the actual situation

The dual system of apprenticeship training: The interactive cooperation and permanent mutual feedback of more theoretical training in part-time vocational schools and more practically oriented training in companies includes some kind of a structural Quality Assurance by establishing a continuous exchange between the contents of teaching on the one hand and the labour market requirements on the other one.

The quality initiatives QIS and QIBB (see above), which are important and rather well developed starting points in the process of Quality Assurance and Development.

The strategy to build QIS and QIBB on the existing quality structure of the Austrian education system and to permit methodological freedom. This leads to higher acceptance and reduces additional work.

Strong driving forces concerning the QM- and QD-process in VET system: Competition of Schools (facing decreasing numbers of pupils) and competition of companies for the best apprenticeship applicants (facing increasing numbers of high talented young people joining higher education).

High motivation of some actors in the process of Quality Assurance and Development (teachers, trainers, directors, etc.).

Weaknesses of the actual situation

Informal character of quality development and in-school evaluation because of non-compulsory status, which often decelerates or even completely inhibits QA- and QD-processes in schools.

Due to this principle of voluntariness very big differences in the use and the degree of

implementation of QA- and QD-processes exist at all levels: school-type, provinces, schools, companies, teachers and trainers.

Low degree of school autonomy (especially in financial competencies and staff matters), which also restricts the realisation of in-school QA- and QD-processes.

Deficits in QIS and QIBB can possibly be found in the process of definition of quality and of goalfinding, because the different point of views by various actors concerning the content as well as the main focus and the primary aim of quality development are maybe not sufficiently considered.

Opportunities for the future

QIS and QIBB offer quite well prepared and userfriendly instruments and support for the implementation of quality assurance and quality development activities in schools.

Risks for the future

Realisation of QA and QD-processes in schools depends on informal processes and the will and motivation of single actors (directors, teachers, etc.). It could be suspected, that the resistance against QA- and QD-processes correlates in a certain dimension with the necessity.

Conclusions

Austria (lead-managed by the Federal Ministry of Education, Science and Culture) has developed quite well working and supporting instruments (labelled QIS and QIBB) to motivate and help Austrian schools, to engage in an on-going process of self-assessment and further development of school quality. The key-elements of these initiatives are a school development plan and self-evaluation in 5 quality areas (teaching and learning, living space school (class and school climate), school

management, internal and external relations, professionalism and staff development).

But in contrast to many other countries quality assurance and in-school evaluation is not compulsory. Therefore in-school evaluation and quality development in Austria can be seen as still being rather informal.

Table 1 *Austria: strengths and risks in the presence and in the future*

	Presence	Future
Positive	▪ Dual system of apprenticeship training ▪ Quality initiatives QIS and QIBB ▪ Driving Forces	▪ Voluntariness leads to a high motivation of schools and teachers participating in QA- and QD-processes. ▪ For increasing motivation and participation special incentives could be offered.
Negative	▪ Informal character of QA and QD (voluntariness) ▪ Big differences in the progress of QA- and QD-processes at all levels ▪ Low degree of school autonomy	▪ Participation of all schools in QA- and QD-Processes is not ensured. ▪ Informal character of QA and QD-processes leads to a high dependence on individual activities and personal influences.

[1]   http://www.qibb.at/fileadmin/content/downloads/DG_DE-EN.pdf

[2]   http://www.qibb.at/fileadmin/content/downloads/DG_DE-EN.pdf

[3]   OECD – Organisation for Economic Cooperation and Development, Paris (www.oecd.org).

[4]   PISA – Programme for International Student Assessment, OECD (www.pisa.oecd.org, www.pisa-austria.at).

[5]   International Association for the Evaluation of Educational Achievement (www.iea.nl), Amsterdam.

[6]   http://www.qibb.at/fileadmin/content/downloads/DG_DE-EN.pdf

[7]   see for all points (cited literally): http://www.qibb.at/fileadmin/content/downloads/DG_DE-EN.pdf

[8]   http://www.qibb.at/fileadmin/content/downloads/DG_DE-EN.pdf

[9]   http://www.qibb.at/fileadmin/content/downloads/DG_DE-EN.pdf

[10]   Schmid, K. (2004): Austria`s school governance in an international comparison, ibw-research-brief, issue No. 09, Vienna

[11]   Schmid, K. (2005): Teacher salary structures in an international comparison, ibw-research brief, issue No. 13, Vienna

[12]   Schmid, K. (2004): Austria`s school governance in an international comparison, ibw-research-brief, issue No. 09, Vienna

[13]   Schmid, K. (2004): Austria`s school governance in an international comparison, ibw-research-brief, issue No. 09, Vienna

[14]   Schmid, K. (2004): Austria`s school governance in an international comparison, ibw-research-brief, issue No. 09, Vienna

4 Country Report Czech Republic

Stanislav MICHEK

National Institute of Technical and Vocational Education (NUOV), Weilova 1271/6, Prague, Czech Republic

Report describes status, activities and current discussion of QD/QM tools link with curriculum changes in the Czech Republic. Case studies come from SOŠ and SOU - COP at Sezimovo Ústí and SOŠ and SOU in Prague 10. Motto of discussion and conclusion is: "Don't search for the reasons why it doesn't work, but for the ways to make it work!"

4.1 Status, Activities and Current Discussion

Vocational education and training (VET) in the Czech Republic enjoys a long tradition of over a hundred years. Some 82% of the population undergoes VET at upper secondary level. It provides not only a vocational qualification, but also a certain level of general education, and enables access to tertiary education without formal obstacles. Traditionally there were three types of school: grammar schools (gymnázia) providing general education, completed by maturita (secondary school leaving exam, education on the ISCED 3A) and preparing for tertiary education; secondary technical schools also completed by maturita but preparing mainly for middle and higher level qualification jobs, and secondary vocational schools completed by the award of a final apprentice certificate (education on the ISCED 3C level) preparing for manual occupations. During the last decade various "transfer" types of school and programmes have been set up (i.e. follow-up programmes) which eliminated dead ends and provided for transferability between general and vocational education. A number of VET schools produce graduates at both technical and vocational (with and without maturita) levels, and new programmes have come into existence on the border between vocational and general education (lyceum).

Findings in this chapter are based on:

- documents analysis (White paper - National Programme for the Development of Education in the Czech Republic, 2001; the Education Act, 2004; National Report on Implementation of the Joint European Programme, Education and Training 2010, 2005);

- analysis of pedagogy science literature focused on pedagogy evaluation, teacher development and self-assessment of schools;

- project documents analysis (PHARE/VET Programme - Reform of Vocational Education and Training through Pilot Schools; The Programme of Quality Evaluation for Post-secondary Technical Education (EVOS); PILOT S – Elaboration and verification of pilot School Educational Programs (SEP) at selected secondary technical and vocational schools);

- experts of education interviews (Head of External Relation Department in the Czech School Inspectorate; Director of Department of Conception of Initial Education and Continuing Education in the Ministry of Education, Youth and Sports);

- interviews with representatives of social partners (Head of Department of Education in the Economic Chamber of the Czech Republic; member of Commission of Development of Human Resources in the Confederation of Industry of the Czech Republic; Director of Department Labour Market and Human Resources in the TREXIMA spol. s r.o. – partner of Ministry of Labour and Social Affairs);

- e-mail questionnaire inquiry focused on schools specializing in mechanical engineering (metal sector) from January to March 2006 – return of 49 questionnaires from 268 questionnaires (18.3 % return rate).

Status

Discussion about quality management in VET started in first part of 90's. In 1995, e.g. the Association of Post-secondary Technical Schools (SSVŠ) gave rise to the Programme of Quality Evaluation for Post-secondary Technical Education (EVOS) funded by the grant awarded by the Ministry of Education, Youth and Sports (MŠMT). EVOS used methodology based on the mutual discussion between schools and the members of the Evaluation Committee assessing schools results and school's strengths and weaknesses.

In 2001 the Ministry of Education of the Czech

Republic published a White paper called National Programme for the Development of Education in the Czech Republic. One of six Main Strategic Guidelines of Educational Policy in the Czech Republic is "Monitoring and evaluation of the quality and effectiveness of education". In the main measure 3.1 - To develop evaluation and information systems of regional education was declared: "Legislative and organizational conditions for providing an evaluation system at the levels of the school, education system and regions will be created. At the school level, internal evaluation will be gradually implemented, together with external evaluation by the Czech School Inspectorate, on the basis of the same methodology."

New School Act continued in strategy of White paper in 2004. Self-assessment of schools has feed forward on solving set aims in the branch of education at schools, which has become their new obligation by January 2005. It is placed by § 12 of the Act nr. 561/2004 on pre-school, basic, higher, vocational and other education (School Act); further details are mentioned in § 8 and § 9 of the notice nr. 15/2005, which sets requisites of long-term matters, annual reports and self-evaluation of school.

Aims and intentions

The quality of vocational training including work placements and practical training in companies is assured by the school. The content of vocational training is set out in the relevant curricula. Evaluation of the quality of vocational training is carried out in co-operation with the company where it takes place, and by the Czech School Inspectorate as part of its inspection activities. There is one teacher in each school responsible for the content, implementation and evaluation of the quality of vocational training. The teacher is regularly in contact with the workplaces where practical training takes place and together with the practical training teachers/practical subject teachers and practical training instructor's asses the quality of vocational training.

Intentions of educational politics and schools

From new School Act results the change in division of powers and responsibilities for the educational content between the centre and the individual schools. The central (national) level of content of education is represented by so-called Framework Educational Programmes (FEP). The FEP specifies the framework for creation of educational plans and formulates rules for creation of School Educational Programmes (SEP) - provides (individual schools) level (about curriculum reform vide infra).

Role of QDS/QM systems for schools in the VET field

Even though the self-assessment is imposed to schools by the School Act since beginning of 2005, it is impossible to say that schools have not used it before. Each school development conception has to appear from analysis of its actual internal progress and state (needs) of its immediate surroundings. A number of schools were elaborating self-assessment in form of paper report, by which the school illustrated its conceptual intentions, used it by creation of annual report and offered it to the Czech School Inspectorate by its inspection work at school. These self-assessment reports had a quite individual character, sequent on difference of approach to self-assessment process alleged in individual schools, nevertheless some schools in this field were trying to use any of the known tools for quality assurance and self-assessment or some of its parts in this period of time.

Significance of "Quality Development"

In the opinion of experts (MŠMT, the Czech School Inspectorate) and social partners (the Economic Chamber of the Czech republic, Confederation of Industry of the Czech Republic, Trexima spol. s r.o.) a good technical and vocational school is always run by a good quality management. School cannot be good unless it is strategically managed. Therefore it is necessary for the school management to have and implement the strategy of the school development. All the activities of the school basically depend on the school management. In an ideal situation there should be a manager with manager competencies in the school management (if possible this manager should be the school director). In other words it means the following:

- The director should run the school in the spirit of Deming quality cycle (PDCA cycle) and apply the Total Quality Management philosophy;

- Schools should apply the process management, strategic management and learn how to make changes through projects. If they succeed then they can "draw" employees into the following ideas: "where we go, which way we go, what is the role of a specific person on this path". In order to succeed the school must be ready for intensive communication with the surrounding world.

Both experts and social partners agree that instruments for quality management (ISO, EFQM, CAF, BSC, etc.) should be used at schools. But such instruments should not be overestimated and used only formally just because it is considered modern right now and people are supposed to use them. If they are applied just formally it will be a contra-

productive activity for schools. Schools should apply the quality management instruments seriously. These instruments should not be a burden for people. It is necessary to establish a system whereby such instruments would help the schools, and schools would be able to see how the instruments should be applied and link them to the activity of the Czech School Inspectorate.

Activities

During the analysis of documents linked with increasing the quality of schools and the process of learning and teaching extra attention were paid to "The Programme of Quality Evaluation for Post-secondary Technical Education (EVOS)" which was implemented in the tertiary non-university education between the years 1995 – 2000.

"The Programme of Quality Evaluation for Post-secondary Technical Education (EVOS)" was a non-state activity. In 1995, the Association of Post-secondary Technical Schools (SSVŠ-Sdružení škol vyššího studia) gave rise to this programme. The programme was funded by the grant awarded by the Ministry of Education. From 1995 to 2000, 21 post-secondary technical schools (VOŠ – Vyšší odborné školy) providing 28 study programmes (3 of them deal with mechanical engineering – Automation Technique, Mechanical Engineering Management, and Mechanical Engineering) were certified - see SVVŠ web pages. EVOS aims were:

- providing the general public with information about the quality of individual post-secondary technical schools and their specializations;

- pinpointing those schools which fulfill requirements for high-quality post secondary technical courses and where applicants do not run the risk of the wrong choice;

- assisting (providing help) schools in their development.

The EVOS programme used the methodology of quality evaluation based on the mutual discussion between schools and the members of the Evaluation Committee assessing schools results and school's strengths and weaknesses. In any case, the Committee is made up of the following members:

- an expert from economic or social practice;

- a representative of higher educational institutions of similar specialization and the type of course with regard to the evaluated VOŠ programme;

- an expert who is able to evaluate school management, development of school and study programme from the viewpoint of the post-secondary educational system as a whole;

- a representative of other VOŠ providing same specialization;

Methodology of quality evaluation was based on:

- Internal quality evaluation which was based on the instructions of SSVŠ, schools conducted internal evaluation and compiled the evaluation report.

- Eternal quality evaluation was carried out by the Evaluation Committee. The objective of the Evaluation Committee's visit in school is external evaluation, verification and assessment of educational process objectives and its matching to the determined goals and teaching plans of the particular study programme.

Basic evaluation aspects were:

- school mission and objectives;

- graduate profile;

- teaching plans, syllabi, organization of study courses;

- personnel recruitment;

- services for students;

- material background;

- the system of quality assurance and improvement.

Current Discussion

In comparison with Western Europe a number of schools in the Czech Republic start looking into the quality of school management.

Concurrently with two big projects focused on developing an external system of assessment (Quality I) as well as a system of self evaluation (Quality II), activities related to introduction of quality management models into VET are also under way in the Czech Republic. Besides the ISO IWA 2:2004 Methodology, or individual standards ISO 9001:2000, the CAF model (Common Assessment Framework) and the Excellence model – EFQM are used.

Reports on experience of Czech schools with the CAF model confirm that schools appreciate the fact that assessment is conducted against the set of criteria, which were largely accepted in whole Europe, that assessment can form a real basis for monitoring and evaluation of quality growth in VET within concrete conditions, that both school staff and management may look at results of their work from an untraditional point of view. An interesting opinion has been currently expressed, which says

that the model can work as a very sophisticated tool for analysis of conditions an individual school has for development of school educational programs – i.e. as a direct support for undergoing curricular reform in secondary VET.

The National Institute of Technical and Vocational Education, which is responsible for VET addresses the issue of quality assurance. In December 2005, a study Self-Assessment of School was published. It informs about present trends in quality assurance both in the Czech Republic and European countries. In addition during first half of 2006 a Handbook of Self-assessment of VET providers was printed. It informs about procedures and management tools for quality assurance (model CAF, model excellence EFQM, ISO 9001:2000, SWOT analysis) and other hitherto experience of some Czech schools with these tools.

Current discussions about quality management and quality assurance are not possible without mention of Curriculum reform. As far as current projects are concerned we concentrated on the system project "PILOT S – Elaboration and verification of pilot School Educational Programs (SEP) at selected secondary technical and vocational schools" which has been running in the Czech Republic since May 2005. Particularly a curriculum reform means change of priorities in education, facing a bigger focusing on personal progress of pupils and adopting key competences, preparing pupils for meaningful personal life, improving their exercise at employment market, preparation for lifelong learning. That is why an important target is to manage learning skills, get, process and use information and use gained knowledge to solve various job and life situations, problems and tasks.

The important targets for secondary technical education system are curriculum reforms of consolidation ties with jobs world and research and development the spirit of business.

According to the Education Act, educational programmes will be composed on two levels (two stages):

- The National Educational Programme and the Framework Educational Programmes (FEP) will be composed on state (national, central) level,

- The School Educational Programmes (SEP) will be composed on regional (local) level.

The National Educational Programme is the basic strategic curriculum document, which elaborates state educational policy, i.e. targets, content and means of education and which is determinate by the Education Act. The National Educational Programme is executed by the MŠMT and ratified by the Parliament.

The Framework Educational Programmes (FEPs) are pedagogic documents with nation-wide force, which set out education targets and education contents (curriculum) necessary for their achievement, rules for setting School educational programmes and basic conditions of teaching. They are an obligatory basis for producing the School educational programmes. The FEPs are set up for individual courses and all educational levels, i.e. pre-school, basic and secondary education. Targets and content of technical and vocational education are set out in the FEPs with regarding eligibility and other requirements of jobs world.

The School Educational Programme (SEP) is a pedagogic document, which will set out enlightenment at concrete school. It is processed accordingly to the FEP of individual education field, so that it takes into account local (school) conditions and needs of education of children, pupils and students including needs of regional employment market.

The FEPs for secondary technical education are centrally elaborated in the National Institute of Technical and Vocational Education and will be ratified by the MŠMT. Schools as well as social partners – members of so called "field groups" (groups of experts of firms and education) – at NÚOV and others, who prepare the needed basis and express their opinion of elaborated proposals, are linked up.

The FEPs for secondary technical education are expected to be ratified (delivered) and introduced into use step by step because this concerns approximately 200 educational programmes. According to the FEPs elaboration schedule that was adopted by MŠMT in June of same year, all planned FEPs should be set up by 2009. Overall there are currently 71 FEPs proposal versions developed on various degrees, from that 24 FEPs are being checked within system project Elaboration and verification of pilot SEP at selected secondary vocational schools (Pilot S). Schools will start creating their own SEP in 2007-2008 at earliest.

From currently 30 FEPs proposals presented on NÚOV website from metal sector point of view are important:

- 2341M/01 Mechanical Engineering

- 2351H/01 Locksmith, locksmith's work and maintenance

- 2368H/01 Motor mechanic, work in car service station

In connection with the Curriculum reform it is necessary to mention activities, elements which can help with development of teachers (about their

application in teaching practices are not information in current pedagogic literature).

Individual activities of development of teachers

- Self-assessment of teachers based on profession teachers competencies or activities of teacher

- Self-education of teachers (nonformal – study of interesting things for teacher; informal – e.g. leisure time activities with children/out of school education, participation in professional club)

- Vocational training of teachers

- Short-term in company trainings / short term attachment on school (domestic, abroad)

- Publication activities of teacher

- Academic development of teacher

- Using of psychological-pedagogic assessment tools in teaching and learning process (standard assessment/diagnostic tools enrich e.g. micro-diagnostic, teacher pedagogic day-book)

- Participation on development of didactics instruments for metal sector fields of education

- Using of new textbooks

Two-sided activities of development of teachers

- Cooperation with teacher's assistant, mentor (teacher)

- Consultation with school advisor, with coordinator of school educational programme, with subject department chief

- Individual supervision (same as in social work)

- Systematic classroom observation (by director, by member of management of school, by subject department chief, by other teacher; lesson observation)

"Group" activities of development of teachers

- Microteaching in group of colleagues =teachers

- Group supervision (same as in social work)

- further education of teachers (e.g. training of presentation and communication abilities; training of subject didactics; vocational training; pedagogical-psychological training)

- exchange of experiences in team of teachers (in/out of school)

- Internal pedagogical trainings on school

- Study visit (domestic, abroad)

- Peer-learning of group teachers from different schools

- Participation of pedagogical research

- Participation teachers on projects (system level, national level, international projects e.g. Leonardo da Vinci projects)

- Participation of school association, participation in teams which develop educational tests (e.g. in the Czech republic CERMAT, KALIBRO, SCIO)

The Metal Sector – Requirements and Needs for Teaching and Learning

A number of changes are taking place in engineering and machine manufacturing, especially in:

- Areas of new technologies, material engineering, use of the CAD systems and computer technology;

- Commerce and trading;

- Management of mechanical engineering companies.

These changes should be reflected also in the process of education and training:

- School leavers should have both key competences and technical competences;

- The need to promote technical schools, closer cooperation between schools and social partners (especially companies).

- Changes should take place at schools through projects.

Teachers are the most actively involved in the process of changes and school managements also play an important role in this process. Also companies, founders and parents are involved in the process of changes.

In order to make schools capable of developing and responding to the changes above they have to consider the following findings and recommendations which resulted from the LdV QualiVET analysis (they are proposals of activities which are common at some schools):

Teaching and learning

Schools should modernize the process of education and training, i.e. update the content of training, and improve the inter-subject ties = they should develop their own quality educational programme (see the curriculum reform and creation of school educational programmes)

Professionalism of teachers

- School management should pay attention to

- systematic further education of teachers (e.g. short-term in company trainings, specialized training courses, pedagogical trainings, courses oriented at development of the "soft skills");

- School management should apply the standard tools for management of human resources (e.g. individual plan of development of teachers, 360 grade feedback, questionnaire research of satisfaction of the school staff);

- Teachers should be experienced in their technical specialization before they start to teach;

- Salaries should be differentiated (20%-50% part of teachers salaries) according to the quality of teachers.

Leadership and school management

- Based on the analysis schools should have a strategy of development, vision and defined mission;

- School directors should devote more time to conceptual management than operational (day-to-day) management;

- Schools should provide a systematic, efficient and regular self-assessment;

- Schools should find the right balance between the process management and change management through projects;

- Rise facilitate further training in the area of management for management staff;

- School management should not forget the details which might become problems in the future ("preventing fire is better than extinguishing it");

- School management should always know how to consider the amount of risk in its activities (and it is necessary to take some risk in the school management and in making changes);

- Equipment of schools – up-to-date ICT and material equipment (including didactic aids) should be available at schools;

School/class climate and culture

- Teachers should improve the approach to students (="customer approach");

- A challenging environment should be created for students to arouse their interest in participating at the school management;

- A system of education career counseling should exist at schools;

- A feeling of identity of students and teachers with their school should be developed and systematically supported at schools (="Corporate Identity" of students and teachers);

- Material equipment at schools should improve (e.g. equipment of the teacher's room, sport facilities for students, classrooms, corridors);

- Schools should offer motivating activities to students (leisure time activities, cultural events, participation of students at competitions, etc.).

Outer relationships

- Companies should concentrate on development of human resources and improve its human resources policy;

- The mutual communication between school management and management of companies on the local level (e.g. by organizing regular round tables) should be improved;

- Schools should cooperate with local and foreign vocational schools;

- Schools should have as much publicity as possible.

4.2 Case Studies

The case studies of two schools (very developed schools in the Czech Republic in the metal sector) are based on interviews with teachers, students, school management and social partner of the school, analysis of annual final report of schools from school years 2003/2004 and 2004/2005 and information from web pages of schools. One of the schools is located in Prague, the other one is situated in a small industrial town with around 8000 inhabitants in South Bohemia Region.

Secondary Technical School and Secondary Vocational School – Vocational Training Centre at Sezimovo Ústí

The Secondary Technical School and Secondary Vocational School – Centre of Vocational Training (COP) Sezimovo Ústí is a public school established by the regional authority of South Bohemia Region

located in the town of eské Bud jovice. The school is an independent legal entity within the Czech education system. In a way it is a follow-up of the Tomas Bata's "school of work" founded back in the year 1941. As a part of optimization of the secondary school network the school was extended in July 1999. In the year 2005 the school celebrated the 65th anniversary of its foundation. Currently the school provides education and training to more than 1,000 students and trainees at various types of study (5 % of them are students of further distance learning programmes).

The school offers:

- Secondary education with final apprentice certificate in the following fields of education: Carpenter, Warehouse Operator, Machinist – Servicing of CNC Machines, Pattern Maker, Mechanician of Electronic Machinery, Engine Mechanic, Electrician – Light Current, Car Electrician;

Secondary education with "maturita" in the following fields of education: Computer Graphics, Mechanician of Digital Instruments, Mechanician Programmer, Electrical Technology, Computer Systems, Mechatronics, Economics, Management of Computer Technology, Business Administration.

The activities of the school include:

- Education and training in the fields of education above;

- Further education (various re-trainings, qualification and specialization courses, trainings and seminars not only for employment offices but also for business sphere, etc.);

- After-school and hobby activities, accommodation of students and trainees, catering and other similar activities;

- Methodological support to operators of practical training centres and workplaces, teachers of vocational training and instructors working at such institutions;

- Counseling and guidance, information service and publishing;

- Performing the tasks resulting from the status of a consulting centre and model school of the Faculty of Education of the Charles University in Prague;

- Performing the tasks resulting from the status of a common workplace of the Faculty of Mechanical Engineering of the Czech Technical University Prague for the parallel 1st grade of the regular Master Degree Programme at the Czech Technical University.

There was a total staff of 147 working at this school in the year 2005, out of which 93 were teachers (4 in the school management, 27 teachers of general subjects, 31 teachers of vocational subjects, 16 teachers of vocational training and 14 general educators).

The actual school and its two boarding houses are located in the centre of Sezimovo Ústí, in the middle of parks and green areas, in a quiet neighborhood which is very appropriate for study and leisure time activities. Both the content of the study programme and the building with its barrier-free access make the school suitable for handicapped citizens.

Also in the school year 2004/2005 the school participated in a number of projects aimed at the training of teachers, self-assessment of school, discussions and cooperation with social partners, study programmes for handicapped citizens, improving the school equipment, etc. The school is currently involved in 3 system projects funded partly by the European Social Fund, in 3 projects co-funded by the Common Regional Operational Programme, in a project co-funded by the Czech Ministry of Education, Region of South Bohemia and several minor projects (such as LdV QualiVET Project). .

Teaching and learning

The modular structure of the education content is characteristic for the COP school curriculum. This school is one of the few schools in the Czech Republic using these principles. The entire content of education is divided in individual units – education modules representing closed and individually evaluated components of the respective education programme. The school has currently about 1565 basic education modules. The modular arrangement and creation of a distribution matrix connected with the target vocational competences (COK) give the ability to respond promptly to the changes at labour market and requirements of social partners when assembling a specific education programme for a student or trainee. The target vocational competences have been integrated into the newly created distribution matrices defining the connection with partial and target vocational competences (next to the content and structure of the subject area).

The experience in producing curricular documents on the school level has been one of the main reasons why the school was selected by the Ministry of Education for the pilot testing of creation of the school educational programmes, the PILOT S project, as from July 2005. In the school year 2005/2006 the school thus produced 4 school

educational programmes which will be tested in real life from September 2006. The creation of the school curricula respects the importance of the use of modern tools (ICT, interactive board, etc.) and changes in the education format. Teachers will not spend all their time with students any longer and students will be working more independently, looking for information on the web, etc.

Professionalism of teachers

In general we can say that the school management supports the active teachers who are interested in further education. 25 courses, trainings and seminars for teachers within both curricular and extra curricular training programmes were organized in the year 2004/2005 on basis of the school projects. Regular pedagogical "Conferences of COP teachers" have been introduced since November 2004. This new element of education gives every teacher the opportunity to present his/her work results, communicate interesting information to the colleagues, start a discussion on inter-subject relations or bring information about new methods and technologies. The Conferences take place on a weekly basis, always on Tuesday before classes begin (from 7 a.m.).

Individual plans of staff development are also used to upgrade the qualification of teachers. There are also specialized commissions at schools: Subject department chief of individual fields of education are in charge of a group of teachers and their task consists in collecting information about what each of the teachers has learned during the school year, which trainings he/she participated in, etc. Also short-term internship programmes in companies and courses aimed at developing the "soft" skills should contribute to the development of the teachers' professional qualifications.

Leadership and school management

Next to the improvement of the teaching process the main goal of the school for the nearest future is to become a modern and comprehensive centre of secondary, tertiary and lifelong education as expressed by the acronym "COP" (Centre of Vocational Training).

In order to improve the quality of management, the school applied the CAF model for the first time in the year 2004/2005. The project was implemented by the Czech Society for Quality whose experts cooperated for the whole year with the managers and teachers of the school. A self-evaluation report of the school with particular regard to each of the criteria was submitted in the end of the school year. The action plan setting priorities of the school for the school year

2005/2006 followed in the beginning of July.

In the strategy of the school development the management has to tackle a number of sensitive questions, the risks and benefits have to be well balanced and some risk has to be taken. The fact that COP knows how to solve details and follow things through also plays an important role in the overall success of this school. Details do matter and this approach is notable in the atmosphere of the school (aesthetics, equipment, interpersonal relations, etc.).

Standard classroom observations (monitoring) and inspections are also used to support the management quality. As results from the analyses of the classroom observations and inspection activity performed by the management in the area of education in accordance with the "Plans of classroom observations and inspections" 155 thematic controls and 105 classroom observations at classes of theoretical subjects were performed besides the regular specified check-ups. The total of 42 controls and classroom observations were carried out in the area of extracurricular education and 58 controls and 14 classroom observations were performed in the area of practical training. The result, proposals and measures to be taken are included in the internal document of COP.

School/class climate and culture

In the opinion of the teachers and school management it is very beneficial for the development of the school that changes are openly encouraged here ("air draught of changes") and that school activities are result-driven. The climate in the school changed in the year 2005 when the school was awarded a prize for "The Best Education Institution in the Czech Republic". The staff of the school understands that it is a strong motivation and commitment for the future.

Student self-government works in each of the classes. However, teachers would appreciate a more active involvement of the student self-government representatives in the development of the school. Questionnaire inquiries are widely used to get a feedback from the students and to know more about their opinions. Students take part in a number of competitions (e.g. secondary school vocational activities), they are involved in a number of projects. Besides the regular teaching process the school organizes many leisure time activities for children and wide public (theaters, competitions, chats with interesting guests, sport activities and tournaments, specialized trips, etc.). Extra attention is paid to the anti-drug prevention, fight against violence and victimizing. The current counseling and guidance activities within the school are basically performed

by the so called "education counselor" and "prevention methodologist" (MP). Their work is complemented by the psychological and pedagogical counseling centre in Tabor and an external psychologist or anti-drug coordinator where necessary.

In the year 2004/2005 the school managed to maintain and improve the good level of order and cleanness of the whole school and hygiene of the teaching process. There was a non-traditional layout of the computer rooms where IT subjects are taught in order to support a cooperative approach to learning. A specialized laboratory of the Czech Technical University equipped with top modern software and especially its new assembly hall was made accessible to students and teachers of this school. Also specialized laboratories for electricity and automation (AMIT) and microprocessor technology (C106) were finished. The newly built laboratory for security systems of buildings was equipped with further modules and equipments from the AmitSys project outputs – observatory (meteorological station). Teaching on the latest digital propulsions TG Drive Brno has started in the laboratory of electric drive. Workrooms for teaching of three new modules of measurement and diagnostics oriented at ISO 9000 were established for the branch of NC (numeric control).

Outer relationships

Cooperation with social partners is one of the top priorities for COP, and therefore it was paid an extra attention in the year 2004/2005. Parents of the students are the most important social partner for COP. The contacts with them are mediated by the students, personal visits and meetings are organized, they can be contacted at the regular meetings of parents. Other partners of the school are: Regional Occupational Council, The Economic Chamber of South Bohemia, National Institute of Technical and Vocational Education, Faculty of Education of the Charles University in Prague, Faculty of Mechanical Engineering of the Czech Technical University in Prague and at least 28 business leaders in the area of machining, metal cutting, electric propulsion, etc.

Regarding the further education this school offers vocational training for such occupations where up-to-date know-how from the area of integrated automation, digital, control, regulation and computer technology, robotics, progressive technologies, electronics and electrical technology is required. The school also offers programmes for development of the teaching qualifications for teachers who are specialists in vocational subjects, practical trainers and general educators (84 people

underwent such training in the year 2004/2005).

Secondary Technical School and Secondary Vocational School in Prague 10

The SOŠ and SOU in Prague 10 is a follow-up of the Motor Car Repair Secondary Vocational Centre. The school has extended its offer of both practical vocational fields of education and study fields of education in its modern and newly equipped facilities. Currently the school provides education and training to approximately 800 students attending various study programmes (49 % SOU trainees in the field of education equivalent to ISCED 3C; 51 % SOŠ students on the ISCED 3A). The school provides:

- Secondary education with final apprentice certificate in the following fields of education: Car Mechanic, Car Electrician, Car Painter and Sheet-Metal Worker;

- Secondary education with "maturita" exam certificate in the following fields of education: Autotronics, Business Administration, Transport Operations, Information Technologies.

The school provides both initial and further education and training. In the area of information technologies (PC) also trainings for teachers, other school staff members and wide public are offered; in the area of car repairs the school concentrates on technological innovations in the car repair industry, diagnostics and repairs of the automobile emission systems; and general public can attend courses focused on the abilities required at the driving license exams elsewhere.

In the year 2004 the school employed a total staff of 104, out of which 74 were teachers (and 73 % of them were certificated teachers). 10 employees were involved on a long-term basis in the further training of teachers.

The main building of the school is located in Prague 10 – Hostiva where theoretical subjects for all the training and study fields of education are taught. Vocational training takes place at three detached workplaces of the school in Prague 10 and Prague 4 and facilities are also partly provided by private companies. The practical vocational training basically takes place at the workshops of the school equipped with the state-of-the-art diagnostic devices and technologies. The school workshop is equipped with a power tester for diagnostic measurements of cars, a car geometry digital meter, cylindrical testing of brakes, wheel balancer and a number of minor diagnostic devices, tools and equipments, most of them produced by Bosch. Courses of skiing and other leisure time

activities for students/trainees are organized in a holiday centre Desná in Jizerské Mountains.

The school takes part in a number of projects. The staff of the school is involved in the creation of a unified task for the final exam in the vocational training field of education Car Mechanic within the system project Kvalita I (Quality I). The school was also active in the LdV project CARISMA - Car Industry and Sustainability. Between the years 2003 - 2005 the school received funds for renovation of its workshops in Libuš, Prague 4 and foundation of the Regional Centre of Vocational Training in the car repair business and IT in the City of Prague.

Teaching and learning

SOŠ and SOU in Prague 10 is the first and so far the only school in the Czech Republic registered in the system Toyota – Technical Education Program (T - TEP) of worldwide vocational training. Teachers and students/trainees were offered a number of training courses and the first 11 graduates completed the programme and obtained the certificate "Basic Study Programme Car Mechanic" in the school year 2003/2004. The school has been also equipped with teaching aids and technical literature.

In the school year 2003/2004 656 students (81,59 %) were graded, (out of which 3,81 % passed with honours, 88,72 % passed and 7,47 % did not pass); 148 students, i.e. 18,4 % of all students were not graded (2,76 % had to repeat the year courses, 9,45 % students were expelled in the course of the school year and 6,34 % of students left the study at their own request). In the school year 2004/2005 111 students were supposed to take the "maturita" exams (out of which 21 were not admitted, 8 students passed with honours, 68 students passed and 14 students did not pass).

Professionalism of teachers

The school emphasizes the importance of further training of teachers. The total of 29 both irregular and long-term courses, trainings and seminars for 32 staff members were organized in the year 2003/2004 within curricular and extracurricular training programmes. The school is involved in the European project of coordinated training of teachers whose initiators are Škoda Auto, Robert Bosch and the Czech Ministry of Education. It is stated in the tripartite agreement that Bosch and Škoda Auto will train several dozens of lecturers from vocational schools who will then become trainers of other teachers in their respective regions. The area of specialization is construction and functions of the systems of motor vehicles. The project is aimed at improving the qualification of

teachers of vocational subjects. The trainings take place on the premises of the detached workplace of the school in Prague 4 - Libuš, which is equipped with state-of-the-art workshop technologies, it has a shop and motor vehicle servicing unit where also the students of the school get trained in order to acquire the practical skills for their future career.

Leadership and school management

The school wants to be modern, demanding and yet friendly. The school director concentrates on the school management in general; deputy directors are in charge of the day-to-day running of the school (e.g. curriculum, administration, management of vocational training, educational guidance, etc.). The leaders of subject teams and experts in methodology are also involved in the school management (use of computers in the teaching process, education counselor, etc.).

A system of regular meetings of the school management and leaders of subject teams is a useful part of the management activity. Teachers get informed about current operations and future perspectives. Also informal social events support the implementation of the school strategy (e.g. once in every six months a trip is organized for all the teachers). Teachers are financially motivated to get involved in the project. Unlike other common schools the school management knows how to say good-bye to those teachers who do not meet the quality requirements. The school uses the feedback control mechanisms; a questionnaire collecting opinions of both teachers and students has been used several times (and results of such questionnaires show positive trends).

School/class climate and culture

The student parliament which is entirely independent on the official school structures is the partner for discussions about issues of students' life (code of behavior, rights and justice, etc.). The school promotes the idea that between student and teacher there should be partnership rather than subordination. Students have the opportunity to communicate their opinions through the web service called "Write to director". Their opinions, suggestions and complaints are then analyzed and solved by the deputy directors.

In the opinion of the students and teachers the school has very good material equipment. Modern multimedia computer rooms, structured data networks including one fixed line for the Internet, electro-technical laboratories, spacious modern classrooms, large gym and fitness rooms, school canteen, boarding house, medical doctor and psychologist are available to students.

As part of prevention of the socially pathological phenomena the school organizes trainings for all students in the first grade in cooperation with the anti-drug coordinator of the Prague 10 District Authority, the Filia foundation. These trainings are organized as chats in small groups of students. Students in higher grades discuss the issues of drugs and related crime with teachers, especially during lessons of civics and classroom meetings. As an alternative to leisure time activities there are a number of sport events, such as the Christmas tournament (basketball, football - soccer, floorball, table tennis) taking place at school. About 621 students have participated in them so far. Another good opportunity for informal discussions about those issues is sport courses attended by many students. In the year 2003/2004 there was 8 courses like that. As a prevention of aggressive behavior teachers seek a continuous cultivation of interpersonal relations both among students/trainees and between students/trainees and teachers. The close cooperation between teachers and parents or legal representatives is the best prevention of truancy.

Outer relationships

The school is one of the fourteen leading car industry schools in the Czech Republic. The social partners of the school are the National Institute of Technical and Vocational Education and at least 18 leading automotive and IT companies in the Czech Republic (such as Škoda Auto, Robert Bosch, Toyota, Autocont). In the area of practical training the school cooperates in average with about 100 car repair service shops in Prague and its surroundings. It is the only school in the Czech Republic registered in the Toyota - Technical Education Program (T - TEP) programme of the worldwide vocational education.

The school has a School Counsel, Club of Parents, Students and Friends of the School whose representatives communicate with the school management on a regular basis. The school is the main organizer of the national competition Car Mechanic Junior. The school has cooperation with schools in other countries. The staff members of the school exchange experience with their colleagues from the Slovak schools (SOŠ and SOU Bratislava, SOU Nové Zámky), with Hungarian schools (Csonka János Is. Budapest; Arpád Szakképzo Is. Székesfehervár), with German schools (FTV Freiberg; Volkswagen Coaching Hannover), a school in Macedonia (Boro Petrushevski Skopje) and one school in Austria (Landesberufschule Egenburg).

4.3 Discussion and Conclusion

Discussion

Strengths of the actual situation

In the programme EVOS (self-assessment and external evaluation) was the biggest benefits from the viewpoint of VOŠs could be summed up as follows:

- necessity to think about the weaknesses and strengths of schools;
- possibility to assess in all details the situation in schools;
- possibility to define and think about plans for school development and their long-term strategies;
- schools can benefit from consultation with Evaluation Committee's experts and their independent views of school problems;
- involvement of teaching staff in the process which could improve internal communication, organization and structure of VOŠ.

Conception of initial and further VET

For the development of school it is important if educational organization provides both, initial and further technical and vocational education. Outcomes of the approach are raising of qualification of teachers, improving of material equipment, resource for multi-resource financing. Example is SOŠ and SOU - COP Sezimovo Ústí when one of the activities of school is further education (various re-trainings, qualification and specialization courses, trainings and seminars not only for employment offices but also for business sphere, etc.). Regarding the further education this school offers vocational training for such occupations where up-to-date know-how from the area of integrated automation, digital, control, regulation and computer technology, robotics, progressive technologies, electronics and electrical technology is required. Or SOŠ and SOU in Prague 10 provides in the area of information technologies (PC) also trainings for teachers, other school staff members and wide public are offered; in the area of car repairs the school concentrates on technological innovations in the car repair industry, diagnostics and repairs of the automobile emission systems; and general public can attend courses focused on the abilities required at the driving license exams elsewhere.

Finance resources for equipment of schools: For the development of school are important finance resources for material equipment. For an example SOŠ and SOU in Prague 10 received between the years 2003 - 2005 funds for renovation of its workshops in Libuš, Prague 4 and foundation of the Regional Centre of Vocational Training in the car repair business and IT in the City of Prague. The school could equip professional workplaces with the most modern apparatuses and technologies.

Teaching and learning: For the development of school is important profile of school. For an example the modular structure of the education content is characteristic for the SOŠ and SOU - COP Sezimovo Ústí school curriculum. This school is one of the few schools in the Czech Republic using these principles. SOŠ and SOU in Prague 10 is the first and so far the only school in the Czech Republic registered in the system Toyota – Technical Education Program (T-TEP) of worldwide vocational training.

Professionalism of teachers: Activities (e.g. short-term in company trainings; short changing term attachment on school - domestic, abroad; peer-learning of group teachers from different schools) contributed development of teachers. The SOŠ and SOU - COP Sezimovo Ústí has good experiences with regular pedagogical "Conferences of COP teachers". The schools use for development of teachers individual plans of development of teachers. The SOŠ and SOU in Prague 10 assure development of teachers by initiatives foundation of the Regional Centre of Vocational Training in the car repair business and IT in the City of Prague.

Leadership and school management: A good technical and vocational school is always run by a good quality management. School cannot be good unless it is strategically managed. Therefore it is necessary for the school management to have and implement the strategy of the school development (conception of development). Example for development of strategy can be external meeting of SOŠ and SOU in Prague 10. The self-assessment helps to development a strategy of the school development. Example is the action plan which setting priorities of the SOŠ and SOU - COP Sezimovo Ústí for the school year 2005/2006 followed in the beginning of July.

Self-assessment of schools has feed forward on solving set aims in the branch of education at schools, which has become their new obligation by January 2005. Previously a number of schools were elaborating self-assessment in form of paper report, by which the school illustrated its conceptual intentions, used it by creation of annual report and offered it to the Czech School Inspectorate by its inspection work at school. The self-assessment tools were not quality management tools, such as EFQM, CAF, ISO 9001:2000, etc. Reports on experience of Czech schools with the CAF model confirm that schools appreciate the fact, that assessment is conducted against the set of criteria, which were largely accepted in the whole Europe, that assessment can form a real basis for monitoring and evaluation of quality growth in VET within concrete conditions, that both school staff and management may look at results of their work from an untraditional point of view.

The quality management relates with a human resources management (HRM) of schools. There is in the SOŠ and SOU in Prague 10 unlike other common schools the school management knows how to say good-bye to those teachers who do not meet the quality requirements.

Standard teaching observation (monitoring) and inspections are also important for the management quality. Good example is "Plans of classroom observations and inspections" at the SOŠ and SOU - COP Sezimovo Ústí.

School/class climate and culture: In the opinion of the teachers and school management at the SOŠ and SOU - COP Sezimovo Ústí it is very beneficial for the development of the school that changes are openly encouraged here ("air draught of changes) and that school activities are result-driven. The climate in the school changed in the year 2005 when the school was awarded a prize for "The Best Education Institution in the Czech Republic". The staff of the school understands that it is a strong motivation and commitment for the future.

For the development of school it is important that students in the management of school. An example is student self-government works in each of the classes at the SOŠ and SOU - COP Sezimovo Ústí. At the SOŠ and SOU in Prague 10 students have the opportunity to communicate their opinions through the web service called "Write to director".

Outer relationships: For the development of school a closer cooperation between the school and the social partners is important. Cooperation with social partners is one of the top priorities for SOŠ and SOU - COP Sezimovo Ústí, and therefore it was paid an extra attention in the year 2004/2005. Similiar approach is possible to find at the SOŠ and SOU in Prague 10, when the school cooperates in average with about 100 car repair service shops in Prague and its surroundings.

For the development of the schools' relationships, partner networks for exchange of experiences, etc. it is crucial for them to participate in projects such as the programs European Social Fund, Leonardo da Vinci, Socrates, etc.

Confirmation of this approach is possible to find in case studies SOŠ and SOU – COP Sezimovo Ústí and SOŠ and SOU in Prague 10 (see above).

Weaknesses of the actual situation

In comparison with Western Europe a number of schools in the Czech Republic start looking into the quality of school management. Schools managers are starting to familiarize with strategy management, quality management, PDCA cycle and systems such as ISO 9001:2000, CAF, EFQM, Balanced Scorecard, 360 grade feed-back, Invest in People, ISO 14000, benchmarking, etc.

There are not use two-sided activities of development of teachers such as cooperation with teacher's assistant (there are not teacher's assistant at the schools – teachers do middle level qualified work or nonqualified supporting work), cooperation with mentor-teacher (no systematic using) somewhere at schools.

The systematic classroom observations (by director, by member of management of school, by subject department chief, by other teacher; lesson observation) are use only formally at a number of schools. This type of observations is implemented without benefit for development of teachers, members of management of school. There are many reasons, may be methodology support of classroom observation by state level, inspectorate bodies, faculties of education; bad experiences with this tool from communist age; resistance of members of management of schools and teachers to learn in this field, etc.

Because the managements of schools don't have finance sources for rewards for teachers they are not able to differentiate salaries (may be 20%-50% part of teacher's salaries) according to the quality of teachers.

Opportunities for the future

Teaching and learning: To further modernize the schools the process of education and training, i.e. update the content of training, and improve the inter-subject ties = they should develop their own quality educational programme (see the curriculum reform and creation of school educational programmes). Key role has curriculum reform which means change of priorities in education, facing a bigger focusing on personal progress of pupils and adopting key competences, preparing pupils for meaningful personal life, improving their exercise at employment market, preparation for lifelong learning. Teachers couldn't focus on subject matters but directly on learning outcomes of students (competencies). That is why an important target is to manage learning skills, get, process and use information and use gained knowledge to solve various job and life situations, problems and tasks. The important targets for secondary technical education system are curriculum reforms of consolidation ties with jobs world and research and development the spirit of business.

Professionalism of teachers: For the development of teachers is important appropriate initial teacher training and systematic direct further education of teachers. School management should pay attention to further education of teachers.

The teachers can take advantage of some forms and methods of further education of teachers, e.g. short-term in company trainings, specialized training courses, pedagogical trainings, courses oriented at development of the "soft skills" (e.g. training of presentation and communication abilities), training of subject didactics, vocational training, pedagogical-psychological training and last but not least short changing term attachment on school (domestic, abroad).

Leadership and school management: In the future the school directors should devote more time to conceptual management than operational (day-to-day) management. Leadership of schools should know how balanced between process management and change management through projects, school managers should know how manage projects. Next opportunity for improving the quality of management of schools is systematic using of self-assessment of school. The example could be using the feedback control mechanisms by SOŠ and SOU in Prague 10. There were several times use questioner for findings opinions and satisfaction of students and teachers.

The next opportunity for schools is taking advantage of finance resources from different programs, grants, etc. for material equipment of schools. There could be up-to-date ICT, didactic aids, tools from metal sector, technologies, etc.

School/class climate and culture: For school climate is important support of professional development of teachers by school managers. Opportunity for improving of climate is schools change of approach of teachers to students (teacher as partner of student/trainee and his/her guide in education. The next opportunity for development of schools is participation of students on management of schools and using the feedback control mechanisms of satisfaction of students and teachers.

Outer relationships: There should improve the mutual communication between school management and management of companies on

the local level (e.g. by organizing regular round tables). Schools should cooperate with local and foreign vocational schools and create networks for exchange experiences. Example is SOŠ and SOU in Prague 10 which has regular contacts with foreign schools (see above).

Risks for the future

Teacher's resistance (protest): The development of school, implementation quality management systems or self-assessment tools aren't obtained everybody, it is nature. Very often the small group of teachers ("islands of positive deviation") likes these changes. For others are important outcomes of development of school, of implementation quality management systems or self-assessment tools. After it is possible that islands of positive deviation is raising. It is necessary thinking about psychological and sociological aspects of motivation of employees (teachers and no teachers). The inner motivations of everybody are totally different.

Self-assessment command and directive effort on school change management

The development of tools, quality management systems or self-assessment tools can work only when employees are willingness cooperate together with management of school. When the management of school command self-assessment or changes the teachers will implement it only formally.

Team members' state of mind: It is possible suppose in process of development and quality management will change level of ebullience, energy, optimism and willingness for changes not only among members of management of school but also among teachers. Over the years will change a period of enthusiastic planning with a period when "the school will rest on one's laurels". In the second period the school management should initiative and support willingness of teachers for finding the ways of development.

No appreciating duly of "islands of positive deviation"

Quality management, self-assessment of schools as tool for the development and change of school are long-term processes. It is not important to hurry up. Sometimes it is not possible to implement everything the most creative members of schools elaborate. It is necessary to reward everybody who participates in the school development – reward every parcel on way which will be successful.

No education of teachers: Opening for self-education of teachers is another crucial factor. It is the basic requirement for self-change. The teachers should be beau-ideal for students/trainees. The teachers should learn every time.

Formality of implementation of self-assessment: The development and quality management systems, tools shouldn't use in formally way. The biggest risk of these tools is formally approach produce self-assessment report or development/quality guidelines/plan. Some humbug will detect sooner or later and doesn't help to school.

No accepting of burden of teacher: There is raising teacher's requirement and their workload in the Czech Republic. The real regular time of teachers overload 45 hours per week (in the Czech Republic is normal 40 hours per week by law). The good teachers are overburden and frustrated very often. The teacher's energy beats out by day-to-day preparing and teaching work. Together with office work the final output of teachers is 80% of everything professional activities of teachers. The analysis of 3297 working day shots of teachers from the Czech, Slovak Republic and Poland is demonstrated low representation of these activities:

- educational activity of class teacher and teachers;
- diagnostic's activities;
- projective activities, deep thinking of education objectives (cognitive domain, psychomotor domain, affective domain);
- team cooperative work of teachers;
- self-education of teachers, professional development.

Conclusions

Currently in the CR on technical and vocational schools with metal sector fields of education is possible to find strengths in quality development and quality management of schools. A lot of schools have experiences with self-assessment. Some schools provide both types of vocational education, initial and further. The schools polarize through changes of curriculum. Many schools have student self-government in each of the classes and students participate in the management of schools. Some schools have good experiences with project management and involvement of system or international projects. On the other side it is possible find some weaknesses on technical and vocational schools with metal sector fields of education in quality development and quality management of schools. It is little experience with quality management (implementation of systems of quality management such as CAF, EFQM, ISO 9001:2000, etc.), absence of assistant teachers on schools, formality of application of classroom observation and no differential salary of teachers by quality of teacher's work.

Finally it is possible to say, if schools avoid the risks (self-assessment command and directive effort on school change management, team members' state of mind, no appreciating duly of "islands of positive deviation", no education of teachers, formality of implementation of self-assessment, no accepting of burden of teacher) it is possible to suppose that schools use opportunities in development (curriculum reform and focus of outcomes of education – competencies, using self-assessment for development of schools, using tools for development of teachers, balancing of strategic and operational management, project management, implementation of feed-back procedure, closer cooperation schools with social partners).

Table 2 *Czech republic: strengths and risks in the presence and in the future*

	Presence	Future
Positive	• Good experiences with self-assessment of schools • Existence of conception of initial and further VET on schools • Profile (polarization) of schools through educational programmes • Participation students on management of schools • Involvement some schools in projects	• Curriculum reform and focus of outcomes of education – competencies • Using self-assessment for development of schools • Using tools for development of teachers (e.g. classroom observation, short-term in company trainings, short term attachment on school) • Balancing of strategic and operaional (day-to-day) management • Project management • Implementation of feed-back procedure • Closer cooperation schools with social partners
Negative	• A little experience with quality management on schools • Absent of teachers assistant on schools • Formality of application of classroom observation • No different salary of teachers by quality of teacher's work	• Teacher's resistance (protest) • Self-assessment command and directive effort on school change management • Team members' state of mind • No appreciating duly of "islands of positive deviation" • No education of teachers • Formality of implementation of self-assessment • No accepting of burden of teacher

Bibliography

Blížkovský, B. – Kučerová, S. – Kurelová, M. a kol.: Středoevropský učitel na prahu učící se společnosti 21. století.Vzdělávací situace, profesní činnosti a podmínky učitelů České, Slovenské a Polské republiky. Závěry akčního srovnávacího výzkumu. Konvoj, spol.sr.o. Brno, 2000. ISBN 80–85615-95–9

Education Act: Act No. 561, of 24th September 2004 on Pre-school, Basic, Secondary, Tertiary Professional and Other Education. Ministry of Education, Youth and Sports of the Czech Republic, Prague, 2004.

Husník, P.:Podniková vzdělávání učitelů. Učitelské noviny, 12-2006, Praha, 2006.

Kašparová, J.: Zavádění kurikulární reformy ve středním odborném vzdělávání. TAMR (Technical News and Methodical Outlooks for Secondary Technical Education), 4–2005, Praha, 2005.

Michek, S. a kol.: Příručka pro sebehodnocení poskytovatelů odborného vzdělávání. Praha, NÚOV, 2006. 84.

National Report on Implementation of the Joint European Programme, Education and Training 2010. Ministry of Education, Youth and Sports of the Czech Republic, Prague, 2005.

O nás. SOŠ a SOU Praha 10 – Hostivař. Dostupné na World Wide Web: <http://www.skolahostivar.cz/>.

O škole. Dostupné na World Wide Web: < http://www.copsu.cz/>.

Obst, O. – Kalhous, Z..: Didaktika sekundární školy. Univerzita Palackého v Olomouci. Pedagogická fakulta. Olomouc, 2005. 188. ISBN 80–244-0599–7

Průcha, J.: Moderní pedagogika.Vyd. 1. Portál, Praha, 1997. 496. ISBN 80–7178-170–3

Rys, S.: Hospitace v pedagogické praxi. Státní pedagogické nakladatelství, Praha, 1975. 150.

Šťáva, J.: Návrh standardu studijního programu v přípravném vzdělávání učitelů odborných předmětů pro střední školy. In: Učitelé jako profesní skupina, jejich vzdělávání a podpůrný systém. Sborník z celostátní conference. Pedagogická fakulta, Univerzita Karlova, Praha, 2001. 260. ISBN 80–7290-059–5

Výroční zpráva o činnosti školy SOŠ a SOU – COP Sezimovo Ústí ve školním roce 2004/2005. Dostupné na World Wide Web: < http://www.copsu.cz/>.

Výroční zpráva o činnosti školy SOŠ a SOU Praha 10 ve školním roce 2003/2004. Dostupné na World Wide Web: <http://www.skolahostivar.cz/>

Web National Institute of Technical and Vocational Education <http://www.nuov.cz>

White paper - National Programme for the Development of Education in the Czech Republic. Ministry of Education, Youth and Sports of the Czech Republic, Institute for Information on Education, Prague, 2001. 105, 92 - 98. ISBN 80-211-0372-8

5 Country Report Germany

Matthias BECKER, Jessica BLINGS, Michael GESSLER, Georg SPÖTTL

Universität Flensburg, biat – Berufsbildungsinstitut Arbeit und Technik
Universität Bremen, ITB - Institut Technik und Bildung

5.1 Status, Activities and Current Discussion

At German institutions for vocational education, several quality management systems are currently applied. Driving forces behind this are two central developments:

1. The transformation of vocational schools into (regional) centres of vocational education, which leads to growing self-responsibility of schools and an extension and a shift of the tasks for those working there;
2. Introduction of evaluation processes (e.g. EVIT in Schleswig-Holstein) at vocational schools.

When deciding on the appropriate quality management system, two basic systems can be chosen from:

- Certifications according to DIN EN ISO 9001:2000 (some schools in Baden-Württemberg, Berlin and Schleswig-Holstein),
- Adoption of the quality management model of the European Foundation for Quality Management (EFQM) for companies to the needs of vocational schools (some schools in Baden-Württemberg, Northrhine-Westphalia and Lower Saxony; Lower Saxony has decided to introduce it) (Euler 2005).

Thus, current approaches focus on improving the „institutional column" of quality: The quality of school structures. By means of these quality management concepts an improvement of school structures shall be reached, using improvements in school structure and school development. However, it seems rather appropriate to target pedagogics and class development at school and in vocational training with new didactic concepts. In Germany, this idea is approached by model experiments (e.g. quabs, QuiSS) and via changed school direction. Here, the first step is to improve school quality and the second step is to improve class quality.

Both the approach and the growing importance of the quality of tests force the discussion about bench marking systems.

At some vocational schools, instruments such as the Balanced Score Card have been implemented and linked to QM systems such as ISO 9001:2000 and EFQM (e.g. benchmarking in vocational colleges, tested in 9 schools in Nordrhein-Westfalen). Also the importance of self-evaluation and orientation along educational standards (standards of the German conference on education) is stressed. The federal states favour re-organising the works of school boards and federal institutes, which take more and more responsibility for the accordance to those standards and measurement at schools.

Status

After in the field of industries the Total Quality-debate happened as early as in the 1980s and during the 1990s, the DIN EN ISO 9001 was broadly implemented on the car industry (a decisive motivator in Germany was the "Act on Liability for Defective Products" from December 15th, 1989), since in 2000 the concept of quality develops also to be an educational-political key concept (Euler 2006). In this context it must be taken into consideration that there are two different ways of understanding quality: "quality as "conformance to requirements"; [...] also the ISO 9000 procedures use that definition. This lets us measure the price of non-conformance." (Crosby 1979) and quality as a matter of development (Deming). These two ways of understanding quality can be found in the landscape (Bülow-Schramm 2006).

External evaluation

We must distinguish between external evaluation, which rather serves control purposes, and internal evaluation, focused on development. At vocational schools in Germany external evaluation was introduced in 2004, in the federal states of Baden-Württemberg, Berlin, Hesse and Saxony. In 2005, Bayern, Bremen, Lower Saxony, Saxony-Anhalt, Saarland and Thuringia started external evaluation, and finally in 2006, Brandenburg, Hamburg, Mecklenburg-Vorpommern, Rhineland-Palatinate and Schleswig-Holstein adopted this system (see Becker, Spöttl, Dreher, Dosse 2006, S. 34).

This heterogeneous image is typical since matters of education lie within the responsibility of

the federal states. Thus, the states test different approaches. When describing the various approaches, it is reasonable to take a look at the federal level. Germany does not follow a common approach.

Institutionalization

It can be stated that the introduction of external evaluation has been a trend in recent years that has become dominant and that it has been institutionalized in different ways in the federal states: School inspections, (e.g. in Berlin, Northrhine-Westphalia,,Hamburg), quality agencies (Rhineland-Palatinate, Bavaria) and school visits (Brandenburg, Saxony, Saxony-Anhalt and Thuringia). The striking difference is the independence of the evaluating authority. The school visits authority in Brandenburg was formed outside national school offices and departments. This institution works autonomously and independently. In contrast to that, evaluation in Bavaria is organized by the school boards of each respective district. The measures are supported by a quality agency which is part of the institute for school quality and educational research. The persons who are responsible for the evaluation are, unlike those in Brandenburg, dependent. This may raise questions and problems about the evaluators' independence and objectivity.

Evaluators in Bavaria evaluate school and class quality according to 4 quality areas, 14 dimensions and 37 criteria. These are:

- Basic conditions

School location / teachers / pupils composition / material and financial resources / if applicable regional and organisational extras

- Process qualities school

School direction and school management (HR management, leadership, organisation of work flow)

Work of the teachers staff (staff cooperation, professional development, advanced training, cooperation with parents and instructors)

School culture (school atmosphere, involvement of students, involvement of parents, open attitude towards the outside, events beyond the classroom)

School development and profile: (school development and quality assurance)

- Process qualities class and education

Class quality (class leadership, class atmosphere, motivation, structuring, target orientation, individual support, autonomous learning, variability of teaching styles, success rate, learning evaluation)

Teachers' measures to assure quality (class-oriented cooperation within teachers staff, class-oriented initiatives at school level)

- School results and coping with these results

Level of learning results (homework, performance determination, comparable works, decisions on school career paths, drop-outs, repeaters, final exams)

Monitoring (school's manner to cope with performance and career results, use for quality improvement)

Contentment (Students, teachers, parents, trainers)

Of all the 16 states in Germany, so far 12 have defined such a quality frame which poses the base for external evaluation. The frameworks are mostly identical. For example, the quality areas used in the state of Brandenburg are the following:

- Results and success of the school,
- Learning culture – quality of learning and teaching processes,
- School culture,
- School management,
- Teachers' professionalism and HR development,´
- Targets and strategies of quality development.

Quality frame has not yet been defined in Bremen, Hamburg and Mecklenburg-Vorpommern, Saarland.

Internal evaluation: Once a federal state has decided either for the system of EFQM or the Swiss Q2E („Quality through development and evaluation") it can be told that internal evaluation is applied. States that use one or both of these systems are Baden-Württemberg (Q2E, EFQM), Hessen (Q2E), Mecklenburg-Vorpommern (Q2E), Bremen (Q2E), Lower Saxony (EFQM), Rhineland-Palatinate (EFQM) and Bavaria (internal evaluation). The internal evaluation, which focuses on development, has older roots than the external one. First projects started in the late Nineties as a reaction to the dominant yet small attempts of internal school development which were based on organisational development.

Implementation: While control systems need to be institutionalized, the introduction of internal evaluation needs implementation. Teachers need to be trained how to apply evaluation, and it is especially important to have them realize the sense of it all beyond the duty. It occurred at several schools that teachers distributed the evaluation material (e.g. questionnaires) and collected them again without actually connecting any interest of their own with this. An evaluation which is driven by duty (or pressure) does presumably miss the point of an internal evaluation which relies on interest. However, we also came across a different way to deal with evaluation when teachers and students together discussed and developed an evaluation instrument, collected data and finally analyzed it.

Activities

The current developments are bound to the target that vocational schools have more autonomy and responsibility which on the other hand is connected to more control from outside (see external evaluation). Responsibility and control shall be brought together by setting up agreements on objectives. In almost all the federal states, resources shall be distributed by using this instrument. Performance will be measured via bench marks (e.g. finishers, drop-outs, duration of training, grades). The quality of performance is subject to negotiation among school direction and federal school boards.

The described control of the framework grants liberties to schools which can only be desirable to a certain extent. A situation of competition is not desired, however this is already the case when, for example, in rural areas certain age groups are concentrated at one location, due to lack of students. This situation is expected for the eastern states, e.g. Mecklenburg-Vorpommern. Whereas there a reduction by 50% of students at schools of general education is presumed, other states expect a rise in numbers of students, which will eventually lead to a resource problem.

The shift of responsibility becomes furthermore visible by hiring new teachers. So far, schools had only limited influence on new employments. In three states, schools are already responsible for the recruiting process (Baden-Württemberg, Mecklenburg-Vorpommern and Schleswig-Holstein). In seven more, a change of the recruiting process is planned or about to be realized. Only in Bavaria and Thuringia schools shall not have the right to hire on their own. The states are rather shy when discussing the process of layoffs. The states are more critical, and five states speak out against schools letting off teachers themselves. This question touches the traditional separation of duties between schools and federal school boards: until now, the headmaster was a supervisor, yet did not have disciplinary rights. The school board assures their power and the possibility to intervene disciplinarily, if necessary. As a consequence, various states (such as Bavaria and Thuringia) do not want to lose that right to the schools.

Another development is the opening of schools towards the region and the companies, which allows a network between vocational schools and improves cooperation between learning locations.

Current Discussion

For the schools, two objectives are important:

Top Down: If responsibilities are shifted to schools, management skills need to be developed. Basic conditions will change, which may improve class quality. For example, teachers can be employed according to the school profile to raise the fit between teacher profile and school profile. It is considered to give disciplinary powers to the headmaster. HR management within schools becomes possible. The instrument of objectives which will exist between school board and school might be applied to the next level, the headmaster and the teachers to guide the development. In general, the instrument of HR development gains importance, however conflicts can be foreseen, since the headmaster has not had this function so far. Therefore, an exchange of experience with industrial companies seems reasonable, but: the high degree of self-responsibility and self-determination which is obligatory for teachers or in the field of education cannot even be partially compared to the industrial sector.

Comparable, however, might be the way of leadership at companies or divisions that are focused on knowledge development, such as the dept. of research and development, where employees also show high expertise and a high level of autonomy.

When changing the conditions for school, one must be careful not to increase already existing milieu-specific injustices.

Bottom-up: In a bottom-up process, the class is the starting point for class improvement. Political decisions and opportunities which allow schools to network and open themselves are possible conditions for a cooperation that need to be integrated in class. However, quality instruments need to be developed that help to instantly improve class quality. The present discussion affects class

rather indirectly and especially targets the relationship between school and school board. Consequently, the next step is evident: in whichever way schools are allowed more or less freedom, these structures need to be adopted internally to develop school and class. From our point of view, the following areas can be identified which might have an impact on improving class:

- Development of the teacher's role,
- Development of teaching methods,
- Development of a logical structure of class contents,
- Development of learning processes according to the learner,
- Development of class conditions,
- Development of a reflective attitude towards the data collected by internal evaluations (roles, methods, content, student's orientation and conditions).

The Metal Sector – Requirements and Needs for Teaching and Learning

The German metal sector is dominated by small and medium-sized companies. Two thirds of the companies, especially the constructors of machines and installations, usually do not have more than 99 employees. The metal and electronics industry in Germany has about 3.4 million employees. (See Spöttl u.a. 2003). In the last 20 years, the sector has immensely changed. Not only has the number of employees decreased from 4.7 million, but also the percentage of employees without any formal qualification has gone down by 45%, whereas the number of those with formal qualification has remained stable in recent years.

The metal sector has largely been targeted by the process of "informatisation". Furthermore it can be assumed that totally new production processes have been developed. It is expected that professions which are more knowledge- or service-oriented will increase, which will then change the requirements for qualified workers. Therefore, in basic education new learning arrangements are created, job descriptions and qualification profiles are changed and new curricula are set up. The resulting quality at institutions for vocational training will be the decisive factor for the success of new production or service concepts.

Taking a look at today's standard tasks from a traditional understanding of production, where an expert's work was focused on solving technical problems in a narrow field of work, these have come close to services. Today, technical skills are not dominant anymore but:

- Quality assurance quality testing,
- Organisation, planning and preparation of order transactions,
- Production assurance, including maintenance,
- Optimisation of product and process,
- Coordination of production processes and formation of a culture of responsibility. (see Spöttl u.a. 2003).

5.2   Case Study

The vocational school in case 1 is a federal and communal vocational school in Bavaria which teaches several different subjects. With about 1900 students, 62 fulltime and 37 part-time teachers (Ø 11.6), it counts among the bigger vocational schools in Bavaria and offers the following subjects:

- Vocational school (areas: construction and colour, nutrition, glass, housekeeping, wood),
- Special vocational schools or diet assistance, housekeeping, nursery, social works,
- Basic vocational training year (wood, carpentry, housekeeping),
- Special academy for housekeeping,
- Special school for glass technology and construction.

The vocational school deals with various measures of school development for whose innovative nature it has been prize-winning before. In order to improve classes, the school applies the optimization of learning culture, concepts for quality development team building, knowledge management and service orientation. To assure and increase the class quality, EFQM evaluation tools are used. Feedback from students and companies shall provide new starting points for quality development. The impression prevailed that at first only the conditions for classes can be improved.

The vocational school in case 2 is a commercially-technically oriented school centre in Baden-Württemberg with 1250 students and about 80 teachers.

The vocational school centre provides the following subjects and areas:

- Commercial vocational school
- One-year vocational schools
- Basic vocational training year,
- Two-years commercial-technical vocational school with focus on metal,
- Two-years commercial-technical vocational school with focus on electronics,
- One-year vocational college with focus on technology to achieve the advanced technical college entrance qualification,
- IT specialist for software development and system integration,
- Special vocational school for machine technologies,
- Technical grammar school with focus on technology or IT,
- Vocational college technology and media,
- One-year college technology and media.

The vocational school is integrated in numerous state reform projects and influences some of them by its own initiatives. These are:

- Strengthening the autonomy of vocational schools (STEBS) – duration 2001 to 2004 – improvement of class quality and the educational offers through increased autonomy of schools and an expansion of their acting limits.
- STEBS-Process – duration 2004 to 2009 – process support of vocational schools which intend to use school development processes in order to get prepared for the introduction of quality management systems. Continuation of STEBS.
- Operatively autonomous school (OES), duration 2003 to 2006. Focus is on the development of a quality management system for the state's vocational schools with the key elements of model development, internal and external evaluation.
- The school is also the driving force for the setup of other state-related reform projects and approaches. The involvement of the school within STEBS was related to the introduction of a quality management concept.

Reform processes of the state of Baden-Württemberg are used to push forward school development. The state projects rather have an effect at the structural level, meaning that school development tasks such as model development, creation of a school programme and other measures of improvement are institutionalized and operationalized. The model of vocational schools, for example, was integrated in the STEBS framework.

In the course of the realization of the OES project, six project groups were introduced which were to focus on different subjects:

- Human resources: This project group shall assure an effective personnel placement with regard to the personal competences and aptitudes.
- Class evaluation: feedback culture of all those involved, evaluation of class.
- School organisation: optimize internal processes referring to the ISO quality management manual and introducing an internal information system.
- Knowledge management: create a structure and culture of knowledge exchange and introduce instruments to support exchange.
- Customer satisfaction: evaluation and management of success and customer satisfaction.
- Model: establishment and surveillance of learning targets according to higher-ranking OES targets and realization in the school programme.

All OES-related sub-projects have in common that predominantly they have targets with immediate relevance for practice, such as assembling statistics on the age structure in order to improve human resources, or the introduction of a suggestion box to guarantee customer satisfaction. Not all targets can be treated with the same intensity. In the case of limited resources or high complexity they will be postponed or cancelled. At the moment, for example, resources are missing for the introduction of knowledge management, and in the teachers staff the common use, filing, elaboration and development of material must still be established.

Teaching and learning

In the first case the striving for quality management can clearly be recognized in the effort to increase the students' responsibility for their learning. According to the teachers, this could be achieved by means of projects. Being responsible for such a project leads to greater flexibility, stronger autonomous working and better conflict competency.

The realisation of projects requires the teachers to act with costs in mind and to support team building at school. This team building is strongly motivated by school adminstration. "It would be desirable if the teams would rather constitute themselves", says the headmaster.

When realizing the projects, teachers are required to act with costs in mind and to let go the idea of transferring professional competence in class. The new role model poses a problem for many teachers.

The headmaster in case 2 says about quality in class: "The responsibility for quality lies at the base". This reflects the belief, acted out at the vocational school, that eventually the individual teacher bears the responsibility for the development of quality. However, it turns out that class quality can only be assured and developed by teams of teachers. Two basic aspects play a role with this. On the one hand, the introduction of quality management poses a structural instrument which shall provide leeway for the development of quality in class. On the other hand, the teachers' forces are tied to a class which is oriented along the subject, and occasionally they are overstrained. At the moment, the introduction and the consequent realization of structural instruments – especially process optimization according to ISO 9001:2000 – need more resources and has not yet resulted in said open spaces. Room for improvement can currently be obtained by systematic feedback from the students (questionnaires). The same goes for the introduction and realization of subject-oriented class. Here, however, improvement is achieved by changed work patterns. It can be stated that currently a development of class quality can be reached by structural optimization. In cooperation with team building, the introduction of pedagogic circles will provide feedback to evaluate, hospitation-trios are formed and 360-degree feedbacks are approached (see Landwehr, 2003). Hospitation trios are formed by two teachers who visit each other in class and a third, uninvolved teacher who takes over moderating functions when reflecting on the classes. Pedagogic circles are held when needed. In monthly meetings, pedagogic problems are treated and communicated with school administration.

Professionalism of teachers

The vocational school in case 1 has developed its own team concept and uses this to support team building processes in class. However, team building is strongly motivated by school administration. "It would be desirable if the teams would rather constitute themselves", says the headmaster. Since not every single teacher shows the desired proactivity, and team building is not a result of daily work, the internal advanced training on team building is supported by an incentive system. For the new technical training, for example, special subjects have been set up for which teachers can apply. Eventually the school adminstration decides on team building and team formation with regard to the applicant's qualifications. However, the self-finding of teams gains more and more space.

With regard to knowledge management, the vocational school can rely on a good infrastructure but has still problems when it comes to assuring a sustained effect. The school's approx. 200 computers are all connected and are financed and supported externally. Whereas other schools must maintain their IT themselves, this also bears disadvantages. The external assistants (two assistants for three schools) need to support two other IT networks. Their administrator rights reduce the authorization of the other teachers. Therefore, necessary software or hardware installations cannot be conducted quickly or at all. Occasionally, expensive software is sponsored by companies, but the software may come to effect very late in class. The teachers stated that in the industry only one administrator per 20 computers is needed, which is a tenth of what is needed at school, whereas at school a more flexible handling is necessary. The school only has three hours of support for roughly 100 users.

For several reasons, the exchange of teaching material and concepts has not been established yet. It has also been stated that information is spread by various structures and a central system which can integrate different tools has not been established yet.

In the course of improving document management and organisational transparency, the school practices knowledge management. For the treatment of class-related documents, rather conventional structures are dominant.

For example, a teachers' plan has been developed which shows substitutions and which can be accessed online by teachers and students, in order to allow early planning of class activities.

For work in class, material is provided, sorted by subject and alphabetically, which is especially used by newcomers. In certain subjects, a specific elaboration of class material is introduced (especially in those classes where subject plans do exist) and IT-supported exchange is established step-by-step. Further knowledge management cannot be recognized. It becomes evident that the introduction of technological structures and team-oriented forms of organisation in class is necessary, must influence each other and remains to be developed.

Furthermore, the success of a common

development and the exchange of concepts are highly dependant on the estimation of such an engagement among teachers.

Leadership and school management

The transformation and extensive adoption of models from companies (Change Management, Lean Organisation, EFQM) to the vocational school has created a service-orientation among teachers but especially with school administration,, which is manifest in teachers' language use at about 90%. The students are „customers", class is called "production of training and education" of the enterprise of vocational school.

All institutions, persons and infrastructural measures (secretary, caretaker, IT, media) which make teaching possible and provide smooth processes, are assigned to a service and flexibly provide their services for the vocational areas.

Since the vocational school is already certified according to ISO 9110:2000, it provides information and concepts for the introduction of quality management services. The ministry of education assures knowledge transfer, which collects reports on the introduction and receives suggestions for realization.

The school administration shares the objectives and the principle orientation of the state's reform intentions. The essential necessity is shared to make vocational schools more autonomous and develop the elements of input direction towards a stronger result orientation.

The turning point is the development of vocational school and the assurance of school processes by means of a consequent introduction and realization of elements of quality management. Furthermore, the school provides internal and external evaluations. Dealing with evaluation approaches and quality management systems instigated the involvement of the vocational school in state reforms. About 8 years ago, this development process started with students questionnaires to measure their satisfaction with class. On the one hand, the school administration wanted reliable knowledge on the students' satisfaction, on the other hand teachers should receive appreciation and suggestions for improving their classes.

When working on evaluation instruments and steady improvement of school processes, it became clear that a system was searched which would be suitable for vocational schools. It could be chosen from two systems which were available at that time: EFQM and ISO 9001:2000. A decision was made in favour of ISO 9001:2000 for the following reasons:

- ISO 9001:2000 is an expanded and accepted model in industry and it has been certified.
- ISO 9001:2000 is an open source model which allows (and requires) adjustment to the school's needs.
- In contrast to EFQM, the introduction of ISO 9001:2000 seems less complex ("EFQM would have asked too much of us"). The rather high costs of certification were earned by the club of patrons.

Since ISO 9001:2000 targets the optimisation of processes, quick success could be made visible which would raise acceptance among teachers. As a consequence, "teachers would quickly recognize the advantages of a quality management system on their work".

The quality management measures that are to be implemented in the course of OES have already been implemented and tested in the vocational school. Especially elements of self-evaluation have been introduced at various levels.

The realization and involvement of OES at the vocational school has also altered the tasks of the school board. Their tasks have not formally changed yet and are taken on by the district presidents. Among their tasks are:

- Counselling of students and parents concerning pedagogic questions and concerning school career,
- Supervision and counselling of teachers and school directors,
- Elaboration and organisation of exams,
- Quality assurance and development of class (by means such as educational work, training of teachers etc.),
- Programs for the development of vocational schools,
- Teachers' accommodation and personnel development,
- Recruiting and selection of managers,
- Collaboration with dual partners,
- Additional skills in vocational training,
- Monitoring of school experiments,
- Test on occupational aptitude for highly qualified professionals to universities and universities of cooperative education,
- Cooperation across boundaries.

In the course of the OES project, these tests are altered in the following way:

- The school board agrees on objectives with the schools. Therefore it can influence on their development, based on systematic feedback (in form of a feedback report) which is handed over by the state institute for school development.
- External evaluation is directed by the state institutions for school development and is based on the internal quality documentation. Up to four trained evaluators are involved. Instead of a representative of the state institute, a team member from outside the school may be included as a "critical friend". The report on the external evaluation serves as basis for the objectives agreed on between school and school board.

In connection with the school board's changed tasks, the special significance of school development and process advisors was stressed, who especially provide the methodological munition for the preparation and execution of evaluations and who support the teachers with the implementation of instruments, the introduction of project management and in pedagogical questions.

School/ class climate and culture

The school culture in case 1 is influenced by an understanding similar to change management with companies. Starting point for school development is mutual trust, autonomy (following the idea of management by delegation), initiative (of the individual), trustful collaboration (e.g. in conferences), identification and proximity to the workplace. These ideas from change management (see Schrey, 1998) are realized at the vocational school by help of the EFQM model. The objectives of school development are defined in a school programme.

The programme for school development, which had been developed by managers in 2002, has been consequently taken over from the quality areas of the Austrian initiative Q.I.S. (see http://www.qis.at/fragebogen/pdf/5Qualitaets-bereiche.pdf) and been adapted to the special needs of school. The basics for the development were elaborated at a managers´ seminar which focused on HR development for headmasters and departmental heads. The starting point of internal school development was a project by the Robert Bosch foundation which had been initiated in 1995 and which formed part of the initiative "Healthy School". School projects on integrated health encouragement, such as the design of a course covering topics such Aids, love and sexuality, addiction and traffic safety, lead to a significant improvement of the atmosphere at school and were the reason for even more measures. According to the vocational school, the EFQM model was the "engine" by which school development measures were initiated by the teachers themselves by a kind of bottom-up process. Several reports from the teachers on "crisis management", participation in fairs and the foundation of a vocational school (Fachschule für Ausbautechniker) among others document these initiatives and their continuity.

Furthermore, the service orientation of the school motivated a flexible and target group-oriented attitude and the provision of other aid (e.g. school pastor). These service-orientated activities partially base on the social duties of school; the example of the school pastor illustrates this.

The teachers increasingly need to deal with crises that pose seemingly unsolvable problems and disturb the correct class process. One example: We were told that occasionally students come to school with their full school bags yet do not know where to go to after school. The teachers need to deal with such a case according to its gravity and help the student before focusing on teaching him.

Problems that the school priest has to deal with are
- alcohol
- violence
- unemployment
- fear not to accomplish school due to financial problems
- massive problem inside the family (e.g. father does not support the family financially, fatalities, violence inside of the family)
- rapes
- suicide.

In case 2, the establishment of a new learning culture was part of the possible focuses of STEBS, yet the example school did not explicitly target them. The understanding of a learning culture includes arrangement of the school building and learning rooms.

With reference to a broader sense of learning culture, which focuses the improvement of learning processes by means of learning concepts, the importance of projects was emphasized. Projects were said to allow for more systematic and binding improvements, for example through projects which involve regional companies. This may result in new impulses for another arrangement of classes.

The step by step introduction of elements of quality management and the connected vocabulary

result in a positive absorption of terms such as "customer", "service orientation", "benefit recipient" without resentment and in putting them in contrast to the educational duties of vocational schools. This development, however, has taken several years. The customer satisfaction poses one focal point to which students, parents and teachers are questioned once a year. The results are disclosed on special quality management boards. The questionaire shall allow the "customer" to give feedback on class and on the school's output, in order to create a ground for an optimization of services.

Outer relationships

The vocational school in case 1 sees itself primarily as a regional education provider. To comply with a certain role as a service provider, the school attempts to include certain subjects in the portfolio in order to demonstrate to the regional companies the innovation and strength of the vocational school.

The vocational school in case 2 emphasizes the broad range of offered courses, which is also tailored to the needs of the region. The offers are according to the school laws, however, also courses that go beyond this are offered after approval of the district president implying that the schools are not fully autonomous in their choice of courses. Special deciding processes on educational responsibilities play an important role with the process of creating new courses. Several decision processes are altered in the course of OES, yet the responsibilities are not shifted at the level of vocational schools.

Several courses are put together according to the "Regional School Development" (RSE) by following the directive "Quality assurance and quality development at vocational schools with regard to pedagogic, regional and economical aspects". Appropriate agreements between vocational schools that intend to offer similar courses yet do not provide the requested number of students within their catchment area are arranged by process tutors who act on behalf of the responsible district president.

In the field of advanced vocational training, several courses are offered for the industry by a development association. These offers are spread and marketed by a special programme of the development association. With roughly 40 courses, this programme is similar to that of the chambers of commerce. According to the questioned teachers and the school directors, this shall not pose competition for the chambers and other providers. There might, however, be certain conflicts with adult evening classes. The advanced courses are arranged by the teachers beyond their usual teaching load.

The vocational school as an advisor in matters of education can rely on a developed cooperation with regional companies. Cooperation is also the basis for the smooth process of offering vocational training. Annual talks with the bigger companies, participation at guild meetings, the use of questionnaires and common training projects provide the basis for a demand-oriented training portfolio at an informal level.

5.3 Discussion and Conclusions

Discussion

The current QM systems at schools hardly provide solutions for a direct quality improvement of training offers at school and company but primarily target structural improvements.

Strong points of the current situation

The realization in case 2 followed completely the OES model: "Every school knows which kind of pedagogical work is best within the network of those who take part in school life. " (Understanding of pedagogic self-determination for OES). The

concrete measures are determined by the schools primarily according to efficiency. Concepts and quality management philosophy are oriented along the Swiss Q2E system when the focus is on feedback processes and on class-related development approaches. At the same time, a huge effort is made on the development of ISO 9001:2000.

The documents mentioned in the manual, which shall improve class quality, are realized by methods which are especially designed to the needs of school. ISO 9001:2000 is rather used as a safety

device for quality efforts than for quality development itself.

Weak spots of the current situation

It can be stated that the examined schools exploited almost all possibilities of structural and process improvements and also had the relevant instruments at their disposal. At the immediate class level, the quality improvements are difficult to recognize and become visible only through changed teachers' attitudes and clearly improved measures of improvement. The resource "teacher force", however, needs to be considered critical, since success was only possible due to an effort beyond the regular teaching load.

Opportunities for the future

Vocational schools have an extreme potential to develop the regional education landscape, however they do not fully exploit these possibilities. One reason might be the legislative situation, another one competition. According to important potential competitors, schools should not position themselves as central providers in the region, as this might result in a distortion of competition.

A service orientation with the regional education

market as a regulative and final evaluation authority seems to be insufficient in the eyes of the questioned teachers at vocational schools. From their point of view, taking over responsibilities should not result in an automatism which means that adduced performances need to be proven because not only market acceptance should be in the focus. The introduction of quality management is often put in connection with too strong an orientation along the educational market and thus appears not steering enough for the development process of vocational schools.

Risks for the future

The huge reform projects in Bavaria have not yet shown much effect on the vocational school in case 1. The impression prevails that school development rather comes from within school and thus can be adjusted to the school's needs. A wide scope can be reached especially by using and cultivating contacts to companies, for example by hiring well-known consultants for the advanced training of teachers. Examples of this suggest that reforms can also be realized without extreme structural measures, however a certain dependence of what can be done can also be seen by the schools reputation among regional partners.

Conclusions

The results of the evaluation show that current quality management systems have only a sorting effect. Quality management systems are effective when they develop class quality. Therefore, the target figures of the different learning- teaching- arrangements need to be known:

(1) Class is determined by several diverse factors, which form the framework for training and class:

- Student personality (previous experiences, previous knowledge, personality traits…),
- Teacher personality (previous experiences, previous knowledge, personality traits…),
- Family ties and conditions,
- Specific class structure,
- Specific school structure,
- Specific company structure,
- Specific regional structure and
- Content „structures" in the steel-sector (demands formed by teaching plans, the steel-sector itself)
- Content "structures" of society (normative settlements).

(2) The teachers and students go through a process of competence development which follows certain development logics. The frameworks for teaching and learning are to be described by a focus on the process, competence development stages need to be pointed out.

(3) The starting points on a content and didactics level that result from the structural and content-related conditions need to be described.

(4) (A quality development system needs to close the gap between vocational training and teaching at schools. Starting points need to be identified which improve learning and teaching in connection with all learning environments.

All measures undertaken at vocational schools intend to improve class quality and work at school. Schools demand more responsibilities for personnel and funds in order to arrange the quality development process autonomously.

The traditional vocational school used to concentrate on pedagogic work and accepted supervision and control by state and federal organs. Meanwhile, schools are demanded to achieve more for the same money, which shall be reached by

shifting more responsibilities to schools. This is principally supported by schools but proves to be impossible without an improved resource plan. The looming conflict – "more quality with the same resources" – needs to be solved in order to accomplish the double quality improvement of class and school work.

The simplified formula needs to be: Improvement of quality at vocational schools by taking over more responsibilities with adjusted resources. The central point of the "new" responsibility is not that schools can decide on HR or finance issues. The main objective is still to assure high quality in class and eventually a good education. The social forces have been asking increasingly for accountability of that. This is made visible by the growing number of evaluations, profound school inspections, a transparent treatment of statistical data and so on.

The development steps towards more responsibilities at schools, a state framework and output quality of schools are to be balanced in such a way that a quality improvement of work at school can be secured. A growing obligation to give account requires new management and panel structures, in order to reach a broad participation in school work and the taking over of responsibility to improve quality.

As several models of their development show, future vocational schools need to re-develop the relationship between pedagogical and administrative responsibility. This is especially valid since they are held accountable for various matters, such as:

- The performance requested by the students,
- The companies that are integrated in vocational training processes,
- Economic organisations on the sides of both employer and employee and finally
- The responsible authorities at the levels of community and federal state.

This will require new forms of communication, panel structures and panel work. At the same time, the teacher's role will change as he is no longer only the pedagogical expert but also a school developer with more responsibility.

According to the new role allocation, teachers need to re-define themselves, to set up a network among each other and to increase outbound communication. This will also have an impact on work time models to be realised. Furthermore, due to the new tasks, vocational schools will have different minimum size as before. The exact figures remain subject to the actual volume of transferred responsibilities, and the position within the educational network of the respective region. With the participation of employers and employees in school panels (such as in Hamburg, Hessen, Mecklenburg-Vorpommern, Lower Saxony or Rhineland-Palatinate) the cooperation and orientation of work at school will be advanced to a new level.

Table 3: *Germany: strengths and risks in the presence and in the future*

	Presence	Future
Positive	▪ Comprehensive activities of vocational schools for quality management ▪ Further development of vocational schools to autonomously acting, learning organisations.	▪ Reference to work and orientation along the work process have been developed insufficiently. Especially the content-related didactic orientation at work-related training in the metal-sector of QM systems is currently unclear and remains to be resolved in detail.
Negative	▪ Many different QM systems are implemented. This prevents not only an evaluation of the said efforts but also common learning processes and exchange among the involved persons and experts beyond state boundaries. ▪ The systems focus on the institutional aspects of quality and neglect the quality of class and training.	▪ Teacher staffs at vocational schools are highly motivated when elaborating school programmes and the future visions linked to them. During the phase of realisation they comprehend the school's complexity and its environment and have increasing difficulties to comply with straight-line implementation strategies.

Bibliography

Becker, M.; Spöttl, G.; Dreher, R.; Doose, C.H. (2006): Berufsbildende Schulen als eigenständig agierende lernende Organisation. Stand der Weiterentwicklung berufsbildender Schulen zu eigenständig agierenden lernenden Organisationen als Partner der regionalen Berufsbildung (BEAGLE). Materialien zur Bildungsplanung und Forschungsförderung. Heft 135. Bonn. Online im www (last check 15. April 2007): http://www.blk-bonn.de/papers/heft135.pdf.

Bülow-Schramm, M. (2006): Qualitätsmanagement in Bildungseinrichtungen. Münster u.a.: Waxmann.

Crosby, P. B. (1979): Quality is free : the art of making quality certain. New York: McGraw-Hill.

Euler, D. (2006): Ergebnisse der BLK-Studie „Qualitätsentwicklung in der Berufsausbildung". In: BLK (2006) (Hrsg.): Qualitätsentwicklung in der Berufsausbildung. Workshop der Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung am 29. November 2005. Materialien zur Bildungsplanung und Forschungsförderung. Heft 134. Bonn. Online im www (last check 15. April 2007): http://www.blk-bonn.de/papers/heft134.pdf.

Euler, D. (2005): Qualitätsentwicklung in der Berufsausbildung. Materialien zur Bildungsplanung und Forschungsförderung. Heft 134. Bonn. Online im www (last check 15. April 2007): http://www.blk-bonn.de/papers/heft127.pdf.

Sauter, E. (2001): Qualitätssicherung und Qualitätsmanagement in der beruflichen Aus- und Weiterbildung. In: Impact, (2) 2001, p. 17-19.

Schley, W. (1998): Change Management: Schule als lernende Organisation. In: Altrichter, H.; Schley, W.; Schratz, M. (Hrsg.): Handbuch zur Schulentwicklung. Innsbruck, Wien: Studienverlag, p. 13-53.

Severing, E.; Stahl, Th. (2002): Qualitätssicherung in der beruflichen Bildung – Europäische Konzepte und Erfahrungen. In: Arnold, R. (Hrsg.): Qualitätssicherung in der Berufsbildungszusammenarbeit. GTZ-Reihe zur vergleichenden Berufspädagogik, Bd. 17, Baden-Baden: Nomos, p. 33-51.

Spöttl, G.; Hecker, O.; Holm, C.; Windelband, L. (2003): Dienstleistungsaufgaben sind Facharbeit. Bielefeld: W. Bertelsmann Verlag.

6 Country Report The Netherlands

Theo REUBSAET

REVICE - Centre for Work, Training and Social Policy, Toernooiveld 140, Nymegen, 6503 CB, Netherlands

Since the turn of the 20th to the 21st century many changes have been and still are taking place in secondary vocational education in the Netherlands. In order to be able to fully understand quality assurance and changes that are taking place in quality assurance in this era, the context of the overall changes in the Dutch vocational education system should in fact be understood as well. Already for about ten years secondary vocational education in the Netherlands finds itself in a very dynamic and turbulent situation, caused by education internal and external factors. It would be far too ambitious, however, to try to describe and analyse the continuous developments during this last decade. We will restrict ourselves to indicating events which directly constitute important landmarks for the developments in regard to quality assurance in secondary vocational education.

6.1 Status, Activities and Current Discussion

The first part of this report is devoted to a description of the most important developments which during the last decade happened at national level in the Netherlands in regard to quality assurance in secondary vocational education. In order to get a better understanding what these developments mean in practice and how they influence quality assurance at school level, in the second part of the report an analysis has been made of the typical experiences a regional vocational education college (ROC A) has with the introduction of a quality management system.

The information that is presented in this report is based on documentary research (laws, policy notes, evaluation study reports, quality assurance reports, internet websites) and interviews.

Status

A very crucial event with regard to quality assurance is that since 1 August 1997 the Law on Adult and Professional Education (WEB) is governing secondary vocational education in the Netherlands. This law is meant to bring vocational education and industry closer together, to enhance the responsiveness of the education system, to optimize flexibility in education and in the system of occupations and to provide every student with a so called start qualification.

In regard to quality the Law (art. 1.3.6) expresses that the entitled authority of an education institution has to set up a system of quality care and to provide for a regular assessment of the education quality, thereby involving independent experts. Every two years the entitled authority has to make public a report about its quality care which has to be send to the Education Inspection. In this report an explanation must be given of the methods applied in quality assessment, the organisation of quality assessment involving independent experts, the results of the regular assessment, the policy intentions of the institution in view of those results and its intentions in regard to quality assessment.

How quality arrangements should be made, was not arranged by this law, neither were reference criteria for quality defined. Point of departure was that the education institutions are responsible for offering and performing education which meets the expectations and requirements of clients and customers, such as the students, further education, industry and the public authorities.

In practice as reference criteria were considered the objectives of vocational education as they were mentioned in the Law:

Vocational education has to:

- provide for theoretical and practical preparation for the performance of occupations for which a qualifying education is required or useful.

Moreover it has to:

- enhance general training and the personal development of the participants

- and it contributes to their functioning in society.

Besides these the institutions also bear the responsibility for:

- the accessibility of education, specially for underprivileged groups,

- the offer of efficient learning paths,

- the offer of possibilities for study and career guidance and

- the adaptation to the developments in society at national and international level in general and especially in regard to the labor market.

By the WEB the educational institutions were given a big autonomy in performing their tasks. The Education Inspection should control their task performance.

In 2001 the functioning of the WEB has been evaluated. In the frame of this evaluation process a series of research projects has been carried out, all focusing on special subjects. One of these studies concentrated on the influence of the WEB on the quality of the education offer and the examinations. Secondary vocational education institutions are primarily responsible for the quality of learning processes, including testing and final examination. The study 'Quality assessed in the BVE' (Nieuwenhuis, a.o.) came to the conclusion that 'the WEB had a positive effect on quality consciousness in the vocational education sector, but that not in all fields, however, this had led to 'operational' policy. Accountability in arrear gets too little attention. The institutions have not succeeded yet to develop a vision on education which is shared by teachers and the regional industry. As a result external and internal consistency and attractiveness of education are not optimal. Stimulating supervision would be the most important instrument to attain quality advancement. External legitimization could be enclosed in a public system for quality supervision'.

In 2001 also the Education Council gives a tentative evaluation of the WEB (WEB: Werk in Uitvoering, 2001). The Council agrees with the analysis of the Steering Committee Evaluation WEB about the internal supervision in education institutions:

'There are big differences in the policymaking capacities of the various education institutions. Quality care in these institutions is not up to level'.

Here the Council cites the Education Inspection which concluded that the self-correcting capacity of the Regional Education Institutions (ROCs) still was insufficient. Initiatives at school governors' level are required. The Council thinks that governors and managers of schools have to stimulate quality care. They should establish frameworks for quality care which have to be filled in by teachers and practice coaches in the first place. The Education Council emphasizes the responsibility of the government for education quality and in this framework the final examinations. Therefore the government should define minimum requirements for final examinations which are carried out by examination institutions,

mostly being the education institutions themselves.

The Council is worried that the vagueness of the quality definition in the WEB leads the Education Inspection to act as writer as well as the surveillance of the norms. A single, unified Education Inspection model would leave insufficient space for diversity and for the various quality models that are applied by the autonomous education institutions.

The Socio-Economic Council also criticizes the quality of final examinations in secondary vocational education. The Council pleads for national examinations and standards. Independent control should be strengthened. In its reaction on the ministerial policy note 'Koers BVE, Perspectief voor het middelbaar beroepsonderwijs en de volwasseneneducatie' the Council argues for stimulants for quality improvement of Regional Education Institutions (ROCs) by initiating a process of communication and discussion about the quality and results of the ROCs with social partners, companies, participants, parents and other education institutions. This process of giving account would have to be compulsory and based on the education institution's quality care report.

Quality development should be related to the interaction of the institution with the main users: the students and industry.

The critical assessments of the situation of secondary vocational education at the turn of the century gave way to important new policy developments.

In 2002 the Law on Education Supervision (WOT) has been accepted in Parliament. The intention of this Law is to enhance the concern for quality in and of Dutch education. The responsibility of the Education Inspection in regard to education institutions and programmes is once again described and clarified.

In 2002 also, the three umbrella organisations of vocational education institutions: BVE-Raad (for school based education in ROCs), COLO (for dual education) and Paepon (for private, non government funded education providers), established the Quality Center Examinations (KCE). This Center has the objective to guarantee and stimulate the quality of examinations in secondary vocational education and therewith contribute to the societal confidence in the secondary vocational education diplomas. In August 2004 in the renewed WEB, the KCE is assigned as the legal body to carry out the external guarantee of the quality of examinations in secondary vocational education. On the basis of national quality standards the KCE has to assess the quality of the exams of all vocational education programmes of government funded and non go-

vernment funded vocational education institutions, which are licensed in the so-called CREBO register.

As a result, in regard to quality assurance in secondary vocational education, since 2004 besides the education institutions themselves two inspection institutions are playing a major role: the Education Inspection and the Quality Center Examinations.

Activities

In the beginning of the 21st century many changes were implemented in the quality assurance of education institutions in the Netherlands.

Traditionally, the Education Inspection was responsible for controlling the quality of education in the Netherlands, from the level of primary education up to higher education (the 'hogescholen' and the universities). In 2003 a new quality assurance system was established in higher education, which cut back the Inspection's role in that part of education considerably in favour of a new national accreditation organization (NVAO).

According to the new Law on Education Supervision the Education Inspection has the task to maintain ánd to improve the quality of secondary vocational education institutions and their units, being mostly (clusters of) education programmes. The new Law has two intentions: making transparent for society what is the state of education in the country and stimulating the education institutions to keep improving the quality of education.

The Law on Education Supervision of 2002 regards all school types and levels of education in the Netherlands. Every level of education is subjected to a specific supervision framework. Also secondary vocational education has a specific framework.

In the law it is emphasized that every school or other education institution is itself responsible for its education quality, including how quality is measured and evaluated. As much as possible the Education Inspection links up with this in its supervision activities and it stimulates schools to improve education quality themselves. The Inspection has to respect the own responsibility of the schools for their education and it should not burden the education institutions any more than is necessary for a careful supervision (this is called proportional supervision).

The Inspection has the following tasks:

- to assess the quality of education provision on the basis of the legal regulations

- to stimulate education quality and the own

responsibility of education institutions;

- to report about the developments in education, especially in regard to its quality at the level of the institutions and of the system as a whole.

According to the Law quality promotion follows naturally from quality assessment. The Inspection has the task to assess the education institutions for their quality periodically, to talk to them seriously if there are any deficiencies and to stimulate them to develop their self-regulatory capability. Central question which the Inspection has to answer in every Inspection visit is: how is the quality of the education at a school? This central question can be subdivided in three other questions:

- How is education quality care arranged?

- What is the quality of education and learning?

- What is the quality of the education results?

The WEB

A school itself is responsible for the quality of its education programmes. Quality implies: describing the quality which is aimed at through specific target objectives, the attaining of these objectives, the surveillance of the quality and public accountability. The school itself defines its quality objectives and standards, just as it does with the way in which quality is being measured and evaluated. The education laws give way for making own choices on the basis of own identity and professionalism. The Law on Education Supervision (WOT) takes this point of view also as a point of departure by instructing the Education Inspection to link up its quality assessment with the self-evaluation of the school.

If a school assesses its quality regularly, then, where ever possible, the Inspection is evaluating quality on the basis of this self-evaluation. Before carrying out an investigation itself, the Inspection will hold the self-evaluation against the light in regard to some aspects:

- the Inspection controls if all relevant aspects of the functioning and performance of the school have been considered in the self-evaluation. In any case the evaluation has to assess the quality aspects mentioned in the supervision framework of the Inspection for the vocational education sector (see further).

- on the basis of documents delivered by the school, the Inspection checks if the self-evaluation is well-founded and reliable. The Inspection looks into the methods being used to assess quality and into the degree to which stakeholders and external experts have been

involved. At random inspections may also take place at location in the schools.

- the Inspection checks if the school has chosen target quality objectives at the right level. The Inspection looks at the standards of the school in the light of school specific circumstances (e.g. the composition of the student population), the norms and standards of comparable schools, the arguments the school gives for its choices and the ideas about the level of quality in society.

Quality in the WOT refers to two categories of aspects: legal regulations and other aspects of quality.

Legal regulations for secondary vocational education have been formulated in the WEB. It concerns, among others, requirements for teachers, for school organization and for school hours and periods and education targets. If a school complies with these legal regulations, this indicates that it has a certain basic quality, which, however, is no guarantee that a school delivers the quality that might be expected compared to other schools. According to the WOT, the Inspection also has to assess a number of other aspects of quality which are related to the functioning and performance of the specific school.

The Inspection has to work out these aspects in consultation with the education field, resulting in the frame of supervision for a sector of education.

The Inspection gives an overall assessment of the total quality of a school. The assessment deals with every quality aspect separately but also links them together. Quality aspects are all identifiable in Inspection reports, which are public.

If a school seriously or protractedly lacks quality, the minister of Education can take administrative measures. Often these measures consist of stimulating efforts, such as extra money for more teachers, better education equipment or additional management capacity. If the worst comes to the worst school funding can be blocked or suspended. This, however, hardly ever happens. This, very recently, has caused the Education Council to advise the minister to add more negative sanctions to the Inspection's set of instruments, such as financial fines.

In consultation with the representatives from education field and other stakeholders the Inspection has to develop a frame of supervision for each education sector. The intention is to reach a consensus about the mode of operation of the Inspection and the content of the supervision. In regard to the mode of operation the frame of supervision informs about the kind and frequency of the investigations the Inspection carries out, about the Inspection reports and about the relationship between these reports and the electronic school dossiers and quality maps. In regard to content the supervision frame contains an evaluation framework which is an elaboration of quality aspects in the form of indicators and norms. This evaluation framework explains what may be expected of school quality in three clusters of indicators: quality assurance and - improvement, teaching and learning, and results.

The frame of supervision of an education sector has to be approved by the minister of Education.

Currently in practice this frame of supervision is very important because it serves as a guiding beacon for the way in which vocational education colleges (ROCs) operate in regard to quality assurance. Many of them have experimented and struggled with quality models such as ISO and INK. Now the inspection criteria are often the guiding lines to which criteria of other quality models are being weight against.

Current Discussion: The frame of supervision for secondary vocational education

According to the WEB vocational education institutions have a number of legal assignments, combined with a great degree of autonomy. Consequently the investigations of the Education Inspection will focus on the way in which these institutions compel with the legal assignments, on which quality objectives they have formulated for themselves and on the question if these objectives have been realized to an acceptable level. The intensity of the Inspection's supervision depends on the degree to which the institution makes its quality care visible and on the quality of its education. In a self-evaluation report the institution must make clear which objectives it has aimed at in regard to quality aspects, what has actually been realized and what is to be improved in the forthcoming period. Where these data provide sufficient and sufficiently reliable information, the Inspection will adopt the judgments of the self-evaluation and these elements most probably will not be part of the investigation of the Inspection. In cases where there is insufficient information in the self-evaluation report, where the Inspection thinks that the targeted objectives are not ambitious enough, where the self-evaluation indicates lacking quality or where there are relevant aspects that the self-evaluation does not pay attention to, the Inspection may start an investigation itself.

In its investigation and its report the Inspection makes a distinction between the organic parts of

the institution. It assesses the institution as a whole as well as the organic parts, which normally are clusters of education programmes. On the basis of self-evaluation data and former data of supervision, among others, the Inspection selects some education programmes in every organic part which can offer a representative picture of that part. Thus, education programmes function as a source of information. Only in case of serious or long-lasting shortcomings in specific programmes statements will be made explicitly about education programmes.

The Education Inspection has five different instruments at its disposal:

- the periodic quality investigation (PKO)
- the further investigation (NO)
- the investigation of quality improvement (OKV)
- the yearly investigation (JO)
- the incidental investigation (IO)

Periodic Quality Investigation (PKO)

The PKO is the most extended supervision investigation the education institution is confronted with, every three years. On the basis of this investigation the Inspection is able to assess in full the quality of education in the institution. Basic element in this investigation is the quality of the self-evaluation which determines the degree, form and content of the PKO.

Further Investigation (NO)

A NO can be carried out in case that, during the preparation or carrying out of a PKO, the Inspection gets a reasonable notion that education quality is deficient in regard to important aspects. In that case the investigation can be extended or deepened in regard to these aspects and some extra indicators in the supervision framework can be used, especially related to financial, personnel and material policy. A NO must be finished within six months after the PKO. The report of a NO is always included in the PKO report.

Investigation of quality improvement (OKV)

In case of serious deficiencies in an organic unit (one or more education programmes) during the PKO, the Inspection carries out an investigation into quality improvement. The nature of the shortcomings (insufficient quality, non compliance with legal requirements) determines the time limit for the OKV. The OKV has to be carried out within two years after the PKO in which the shortcomings were observed.

In the OKV report the education programmes at stake will be explicitly mentioned.

Yearly Investigation (JO)

According to the WOT the Education Inspection investigates the education quality of the institution on a yearly basis in the JO. The JO has a limited size and takes no longer than one day.

The JO has four objectives, which determine the agenda:

- investigation of the results of the institution
- updating of data for the overview of information about the institution
- consultation about the development of quality assurance and about the development of the institution in general
- analysis of the risks in the further development of the institution.

Other issues can be added by the education institution as well as the Inspection.

The JO only takes place in those years in which no PKO or OKV is carried out in the institution. However, in case of a PKO or OKV year, also subjects of the JO can be investigated.

The JO is completed with a report for the institution, which is publicly available.

Incidental investigation (IO)

In case of serious complaints, news in the media, questions in parliament or a request of the minister, the Inspection can carry out an IO.

The quality aspects that are investigated by the Inspection are dependent on the nature of the inspection (PKO, NO, OKV) and the nature of the education institution which may have specific points of attention. The PKO is the most important investigation in which all important inspection areas are covered.

Requirements and Needs for Teaching and Learning

The Inspection's evaluation framework is sub-divided in three domains:

- quality assurance and quality improvement,
- teaching and learning, and
- results

Each domain encloses a number of quality aspects which are considered to be crucially important. Each quality aspect is build up on

indicators which are in fact the specific measuring rods.

In this section the quality aspects and indicators with focus domain b, teaching and learning, will be described in detail because these may be a source of inspiration in the Qualivet project.

In article 1.3.5 of the WEB the tasks of the vocation education institutions are defined. In the domain Teaching and Learning these tasks are elaborated further. They relate to all aspects of education, from the enrolment of students and the attuning to pre-vocational education up to the final examinations. Among others, quality aspects such as study feasibility of the education programme, the education learning processes, occupational practice teaching, contact with the participant and education process coaching are of great importance in this domain. An important input in regard to these quality aspects has to be delivered by the participants themselves. The Inspection is investigating whether the choices that have been made by the education institutions sufficiently and meticulously contribute to the tasks that are described in article 1.3.1 WEB.

Quality aspects

- B5 Accessibility

- B6 Study feasibility

- B7 Education learning processes

- B8 Occupational practice learning

- B9 Contact with participants

- B10 Education process coaching

Quality decision rules

For the institution: Teaching and Learning have sufficient quality if the majority of the education programmes qualify satisfactorily for the domain Teaching and Learning.

For the education programme: Teaching and Learning have sufficient quality if both the aspects B7 and B8 and at least 1 of the aspects B6, B9 and B10 qualify satisfactorily for the domain Teaching and Learning. B5 is assessed at the level of the institution.

Quality indicators

Quality aspect B5: accessibility

The institution carries out an active policy to increase accessibility, especially for underprivileged groups such as disabled people.

This quality aspect has six indicators. If four indicators are passed, the assessment is sufficient. If all indicators are passed, the assessment is 'good'.

Quality aspect B6: study feasibility

The education programme is feasible for participants

B6.1 The programme meets the content requirements that have been laid down in the education examination regulation (OER), shows a transparent structure and connection with related programmes

B6.2 The content of the programme attunes to pre-vocational education and successive education (mainly higher professional education)

B6.3 The organisation and the performance of the programme accounts for differences in education needs and possibilities of the participants (tailor-made pathways)

B6.4 The programme is offered to the participants within the programme- and study time that is required and manageable

B6.5 The institution strives for a maximum realisation of the programme time and gives account for that

Decision rule: The education programme cluster passes sufficiently if indicators B6.2, B6.3 and B6.4 are assessed satisfactory. The education programme cluster passes 'good' if all indicators pass satisfactory.

Quality aspect B7: education learning processes

The education learning process and the use of learning rooms and learning materials are efficient for the participants

B7.1 The education learning time of the participants is being used efficiently

B7.2 The content of education learning situations and the learning materials used attune to the final terms/partial qualifications, to characteristics of the participants and the characteristics of occupational practice

B7.3 The quality of the learning rooms and the inventory is sufficient for achieving the final terms/partial qualifications

B7.4 The whole of (didactical) arts of working is efficient and coherent, fits with the points of departure selected and offers room for self-reliance of the participants

B7.5 The needs for instruction, support and coaching of the participants in the education learning process are acknowledged and fulfilled in a stimulating manner

Decision rule: The education programme cluster passes sufficiently if indicators B7.1, B7.2, B7.4 and B7.5 are assessed satisfactory. The education programme cluster passes 'good' if all indicators pass satisfactory.

Quality aspect B8: occupational practice learning

The occupational practice learning is organised and carried out sufficiently efficient for the participants

B8.1 The education programme has laid down which part of the final terms has to be learnt in occupational practice learning and implements in a coherent way learning in school and in occupational practice learning

B8.2 The education programme prepares the participants as well as the occupational practice learning companies for the occupational practice learning

B8.3 During occupational practice learning the participants are coached by the school

B8.4 The education programme sees to it that the coaching of the participants by the company is satisfactory

B8.5 The education programme sees to it that the content of the occupational practice learning matches the requirements of the programme

B8.6 The learning results of the occupational practice learning are assessed according to the specified requirements

Decision rule: The education programme cluster passes sufficiently if indicators B8.3, B8.4, B8.5 and B8.6 are assessed satisfactory. The education programme cluster passes 'good' if all indicators pass satisfactory.

Quality aspect B9: contact with participants

The participants stay in a respectful and secure environment

B9.1 The information preceding the education programme about its content and organization and the examinations is precise, realistic and timely

B9.2 During the education programme the information provision about all relevant issues is precise and timely

B9.3 Questions and remarks of participants are treated carefully

B9.4 Within its territory the education programme takes care of social and physical security and respectful contact between and with participants.

B9.5 The education programme sees to it that within the territory of occupational practice learning places social and physical security of the participants and respectful contacts are realized

Decision rule: The education programme cluster passes sufficiently if indicators B9.1, B9.2, B9.4 and B9.5 are assessed satisfactory. The education programme cluster passes 'good' if all indicators pass satisfactory.

Quality aspect B10: education process learning

The intake and coaching of participants are sufficiently careful and efficient

B10.1 The education programme applies a system of intake and assessment

B10.2 The education programme applies a system of individual coaching of participants in case of processes of choosing and of change of education programme

B10.3 The education programme applies a system of individual coaching of participants in case of serious problems in the progress of the learning process and during the education programme personal and social coaching of the participants is available

B10.4 The education programme systematically registers the learning results and coaching data of the individual participants

Decision rule: The education programme cluster passes sufficiently if indicators B10.1, B10.2 and B10.3 are assessed satisfactory. The education programme cluster passes 'good' if all indicators pass satisfactory.

The quality of examinations

Above was mentioned that in the beginning of the 21st century in the evaluation of the WEB 1997, a great concern was expressed about the quality of secondary vocational education in general and more specifically about the quality of the final exams. The examination structure at the time did not sufficiently guarantee the quality of the examinations, did not provide a transparent enough picture of that quality, was complicated and inefficient. A clear national standard for examination quality was lacking, the roles of the external examination institutions were not transparent and no negative sanctions were possible.

In reaction the representative umbrella organizations of the various secondary vocational education institutions (see chapter 2) established the Quality Center Examinations (KCE) in vocational education. The objective of KCE is to assure and stimulate the quality of the examinations in secondary vocational education in order to

contribute to the confidence in this type of education diploma.

Since August 2004 in the revised WEB, the KCE is appointed as the legal body with the task to carry out the external guarantee for the quality of the examinations of all secondary vocational education programmes on the basis of national quality standards, which are laid down by the minister of Education. These quality standards have been developed by the KCE in cooperation with stakeholders such as education institutions, the professional field and the Knowledge Centers Vocational Education and Industry (KBBs).

The functioning of the KCE itself is subjected to a yearly investigation by the Education Inspection.

Central question in this Inspection control is: Does the work of the KCE every year result in a reliable and valid assessment of the quality of the examinations and the examining in all vocational education programmes?

The education institutions remain responsible for the examination of the vocational education programmes they have on offer. They can subcontract, however, the examination of a specific education programme and the responsibility for the quality of the exam, to an education or examination institution which is certified to carry out the exam. Quality standards lay down everything that is relevant in regard to the total exam of an education programme (all qualifications, all examination tasks and procedures, including all legal regulations). The standards refer to the exam within the education institution as well as within the learning company.

Product standards are related to the quality of the examination tests, in particular the answer to the question: is the content and level of the exam adequately attuned to the final terms and the level of the specific qualifications?

Process standards concern the quality of the examination process, the examination procedures, the conditions for taking exams and the decision on the results of the exam.

The education institution has to take care and guard that the exams of all its education programmes meet the standards. This internal quality control of exams is a part of the quality care system of the institution. Self-evaluation in this respect has to take place every year. The KCE monitors the quality of the examinations by carrying out the external control and by providing an independent assessment to which degree the exams come up to the standards. In principle the KCE assesses the exams of every education programme that is delivered by an education institution. At the end of its investigation the KCE issues a declaration to the institution which underpins its findings. This may be a favorable declaration if the institution to a sufficient degree comes up to the standards. It may also be a conditional declaration meaning that the examination doesn't meet the standards sufficiently yet, meaning that shortcomings do exist but KCE expects the institution to be able to resolve these within one year. But it can also be a disapproving declaration when the institution doesn't meet the standards and the KCE expects it not to be able to comply with the standards sufficiently within a year. If the institution has been given a conditional declaration in the preceding year and insufficient improvement is visible, it will also be confronted with a disapproving declaration. In case of a disapproving declaration the minister of Education can deny the right to exam the education programme which is registered in the Central Register Vocational Education Programmes (CREBO).

In its annual report the education institution has to give public account of the results of the self-evaluation concerning quality of the examinations and of possible improvement actions, including the independent assessment of the KCE about the investigated exams.

Examination quality standards

In the ministerial regulation of February 2005 examination standards are subdivided in five domains. These domains are:

- managing the exam (6 standards)
- cooperation, purchasing and subcontracting (2 standards)
- examination process (6 standards)
- examination products (3 standards)
- accountability (2 standards)

For every standard one or more indicators are defined which are used by the KCE for its assessment.

6.2 Case Study

Description of the Case Studies

ROC A is a secondary vocational education institution in a city of about 150.000 inhabitants. It also provides for adult education. The institution offers hundreds of vocational education programmes clustered in four sectors: Health and care, Economy, Technics, and Reintegration and Education. The college has a regional function in an area of about 15 kilometers surrounding the city and includes also an auxiliary branch in a small town about 25 kilometers away, which is considered as a separate unit (sector). Within this 15 km area hardly competing influences of other regional vocational education colleges occur.

The vocational education programmes are provided in 12 premises. In 2005 the number of staff was 673 full time equivalents, of whom 418 belonged to the education staff.

The number of students has risen from about 8.500 in 2003 up to over 10.000 in 2005.

Quality assurance assessments and organizational restructuring

In 2002 a sample of 10 education programmes of the ROC A has been investigated as part of, what is called, an integral institution inspection (IIT). Such a sample of programmes, which is selected by the Education Inspection, possibly supported by the school's management, is considered to enable a full assessment of the quality of the education institution.

In 2002 the IIT came to the following main conclusions:

- ROC A took care of the quality of its education to a sufficient degree. Nevertheless a great number of improvements were thought to be necessary. The quality of five of the ten programmes, among which constructional fitter, has been assessed as insufficient (compare the Inspection's criteria, chapter 5), in the other five programmes one or more quality aspects were evaluated as insufficient.

- Accessibility of the education is insufficient because of an inadequate policy in regard to so called target groups.

- The primary process of teaching and learning had sufficient quality but still critical remarks were made in regard to the aspects flexibility and tailor-made education, qualifications and the internal and external legitimacy of the examinations.

On top of that, the Inspection passed judgment that the systematic quality care at the institution level was not recognizable at the level of the education sector and the education programmes.

The Inspection's judgments resulted in a renewed integral assessment of the five pro-grammes which was carried out by the end of 2003. At the time the conclusions in regard to the programmes were different then because they passed judgment as having sufficient quality, although improvements still were necessary, especially in regard to insufficient study feasibility as consequence of lacking tailor made education and flexibility.

In 2003 quality assurance and quality improvement, however, still were not assessed as being good enough.

In 2004 in the yearly investigation (JO), the Inspection draw up the conclusion that the education programmes had started with improvement actions but that no results were to be seen yet. Another conclusion was that in 2004 audits of the KCE had shown which improvements were necessary in the examinations. For this also improvement actions have been planned. In the same JO conclusions were drawn in regard to the progress of the development of quality care:

"The operation of the new quality management system and the appointment of a senior staff member Education and Auditor have to test and guarantee quality assurance and quality improvement of the primary process and the supporting process, and bring about the continuous process of quality improvement. In order to realize this down to all levels of the organization, an organization restructuring process has been initiated into teams which are accountable for their results.

Strategic goals have been formulated and critical success factors established. In the Balance Score Card these success factors are clustered in four policy areas: Clients and market, Innovation, Finances and Internal processes. In regard to three performance indicators teams formulate their goals and actions planned. Two of the three performance indicators are defined at institutional level: reduction of drop outs and increase of participants' satisfaction. The third indicator is chosen by the teams themselves from a set of thirteen prioritized indicators for the year 2005".

The renewal of the quality management system did take place concurrently with the organizational development referred to afore. Since the midst of 2005 the vocational education college operates within the education sectors with teams of staff members which are accountable for their own

results. The education supporting services which formerly were organized centrally, were decentralized towards these teams. Teams are managed by a team manager. For example this implicates that the structure of the sector Technics has been changed. Formerly there was one director and three heads of units, each unit employing about 30 to 35 full time and part time teachers. Now there is a director and a deputy director with 6 teams, each one consisting of about 15 teachers, which, consequently, implies that the span of control of the team managers is smaller compared to that of the former heads of units. The teams in the sector Technics are focusing on the following subjects:

- building, infrastructure and interior design and decoration

- electrotechnics and automation

- mechanical engineering

- mobility and logistics

- installation-, process- and operational technology

- commercial technics

In 2005, in mechanical engineering it was possible to study 25 education programmes, most of them at level 1 and 2 (respectively 5 and 13). Seven of these level 1 and 2 programmes were school based (BOL programmes) as well as alternance-based, dual education programmes. The other 11 are all dual education programmes (BBL programmes).

At level three, 6 programmes were available of which only one was given in a school based form as well as in an alternance-based, dual form. The other 5 are dual programmes. The only level 4 education programme (for mechanical specialist) is school based.

At the end of 2005 the Education Inspection has carried out a new PKO. Just very recently the report was agreed upon between the Inspection and the Board of the ROC A. For inspection, besides the general parts of the institution, again 10 education programmes were selected: two from each sector. For the sector Technics the programmes process- and installation technology and mobility have been selected for assessment which means that this time no specific mechanical engineering programme has been assessed. Nevertheless, on the basis of the information collected about these two education programmes and of general information about the sector Technics, the Inspection has produced a sector assessment which in fact also refers to the mechanical engineering programmes. The sector Technics' management thinks that in order to give a valid assessment of the education in the sector, it

would be better to investigate a greater selection from the 120 programmes the sector can deliver. Nevertheless, the management is positive about the feedback the Education Inspection has asked for in order to check if its findings were representative for the sector.

In the assessment of the Inspection, as always, the Inspection's Frame of reference with its evaluation criteria is the guiding thread. Evaluation criteria are gathered in three clusters: teaching and learning, results and quality assurance and – improvement. We here present some conclusions of the inspection in regard to the sector Technics.

Quality of the education in the sector Technics

Teaching and learning

The first and most important conclusion of the inspection is that the quality of teaching and learning in the sector Technics is sufficient. The programmes are directed at attaining the nationally defined final terms (learning objectives) of the programmes.

The teaching and learning process has been renewed fundamentally. The intention is to offer education starting from practice situations, a process which in fact is in an initial stage. In regard to the cluster teaching and learning all aspects (B7 Education learning processes; B8 Occupational practice learning; B9 Contact with participants; B10 Education process coaching) are assessed as sufficient except the study feasibility. Still most programmes pay too little attention to tailor-made education and they are not flexible enough, especially the school based education programmes. Most education programmes consist of fixed trajectories with few options for the participants to choose alternative subjects. Also the connection with pre-vocational education is considered to be insufficient. This is a central point of attention at institutional level but in the sector Technics this did not yet result in concrete agreements with pre-vocational education institutions about content and pedagogical-didactical approaches. Already existing agreements with higher professional education institutions and programmes have been renewed in a number of cases, which may result in the possibility of reducing the study time needed in higher professional education programmes by qualified students of the secondary technical education programmes of the sector Technics.

The quality of the education learning processes is sufficient. In 2003 the sector has decided to change the education concept, especially of the school based education programmes, towards practice guided education with more variety in

working forms in surroundings which offer a rich context. This restructuring process is on its way but the turnaround from subject-oriented education to education in which practice situations and the learning process of the participant are focal points, still is in its infancy. Some programmes didn't even start yet. External support still is very much oriented on content of the subjects and not on the education process itself. The quality of occupational practice learning is sufficient. The organization and preparation of occupational practice learning are good. Generally this is also true for the coaching by the companies. To a sufficient degree occupational practice learning is directed to attaining the final terms. A consistent feedback of the findings during company visits of the teachers might even contribute more to this. The coaching by the school is varying and sometimes a little bit poor.

The whole sector is working on the preparation and integration of competence learning. Although good conditions seem to be available, knowledge and skills are not yet firmly-rooted in the projects of all education programmes.

Students experience the study load as moderate. In most education programmes, according to the Inspection, the work forms are sufficiently efficient but a variety in activating work forms is lacking. Because the programmes have noticed this themselves, to an increasing degree working in projects is relieved with class instruction and practice, however, without loosing attention for teaching basic knowledge and skills. Subject matters guidelines sometimes support the planned approach. Materials for practicing skills generally are available but the capacity utilization is so high that the progress of the learning processes is subjected to stagnation. For this an improved planning could bring about some relief. Mostly available study time is used efficiently. Presence or absence of students is registered sufficiently and mentors act timely and adequately in case of unauthorised non-attendance. Dropping of classes is confined because of agreements on mutual replacement.

Generally information provided about the education programmes provides a fair picture. Trajectory coaching is sufficient but improvements are needed. Education programmes try to maintain and further develop a strong relationship with occupational practice in order to provide an integral approach of theory and practice. Partnerships with technical companies and the so called 'associations of friends' contribute to this.

Questions of the participants are treated by the teachers in a positive and problem solving way. Teachers are approachable for the students. In recent times the sector has invested in the coaching of participants. A changing role from teacher/instructor to coach of learning processes is difficult for a number of teachers. Therefore coaching not always goes smoothly. The support for participants who need extra care, gets off the ground and the cooperation with the teams is growing. The task description of the guidance counselor is not always clear. The counseling about professional opportunities is provided rather late. Registration of learning results and personal coaching can be attuned better.

Study results are estimated as being sufficient. The number of students, who leave school with a diploma, is somewhat higher than the national average. The drop out rate has decreased. These figures are not playing a big role in defining the teams' policies.

Quality assurance and -improvement

In the next sections more in depth attention will be paid to the quality care in ROC A. In this section the opinion of the Inspection will be presented. According to the Inspection quality assurance and -improvement has received good impetus but is not yet of a sufficient level on the whole. The system of quality assurance and surveillance is introduced rather recently and the cycle has not yet been performed at team level. The relationship between documents at various levels, however, is clearly apparent now.

In the self-evaluation and in the team plans not all objectives yet are formulated concretely and measurable enough. An evaluation of improvement activities therefore is not possible yet. Data of the JOB-survey have not been worked out noticeably in the team plans and the first year's students survey has not been applied everywhere. An important initiative is the establishment of students' platforms in some teams. Occupational practice learning companies are not yet involved in quality assurance.

The progress of the activities is regularly discussed internally which is an indication of a systematic mode of operation. The restructuring of the school based education has been evaluated broadly. Data are available and the conclusions will be transferred in improvement actions. The legal protection of the participants is sufficient. Legal documents meet the requirements but do not fulfil an important role for the participants. Complaints are treated adequately. The sector offers a secure climate. In 2005, in the education programmes of the sector Technics, KCE has carried out a process and a product audit. This has resulted in so called provisional statements. The sector and the teams are working on improving the shortcomings.

6.3 Discussion and Conclusions

Discussion

It has been emphasized in the WEB that every secondary vocational education institution itself has the responsibility to develop or choose a quality management system. The ROC A started with developing a quality management system in 2004. It has been inspired by the model of the Balanced Score Card (BSC). This model has been transformed into the Performance Card of the ROC A.

The four performances areas of the BSC have been maintained: clients and markets, innovations, financial affairs and internal processes. In a conversion matrix the ROC A has related every performance indicator of every performance area to an indicator of the Education Inspection's evaluation framework: "Our performance indicators and those of the Inspection overlap almost 100 %. Indicators are only clustered differently, sometimes at a somewhat different level. Nearly everything we measure is related to an Inspection indicator but also vice versa. Some Inspection indicators are more thoroughly transferred into our document than others. We do not measure these before an Inspection visit but in such a case we can refer to another document. This is also the point of departure for the self-evaluation. We showed this to the Inspection and they now are also able to do this translation."

This system with four performance areas, critical success factors (KSF) and performance indicators (PI) is still developing. It is becoming more detailed with an increase of the number of KSF and PI, but nevertheless it still is less detailed than that of the Inspection. The most recent version of the Performance Card (2006) is presented here:

Table 4: Performance area 'Financial affairs'

Critical success factors (KSF)	Performance indicators (PI)
To stay financially healthy	number of diploma's
	% difference between real and forecasted number of participants
To carry out activities within budget (+)	difference between budget and real costs per period
	difference between budget and forecast at yearly basis
To increase turnover contract activities	turnover per contract
	turnover in subsidised projects
	contractual turnover related to sales costs

Table 5: Performance area 'Clients and markets'

Critical success factors (KSF)	Performance indicators (PI)
To increase satisfaction participants	% satisfied participants
To increase satisfaction companies and other organisations	% satisfied companies and other organisations
To increase satisfaction of pre-vocational education and higher professional education	% student counsellors satisfied about information service
	number of consecutive learning programmes
	% satisfied higher professional education programmes
To build up relevant networks	number of contracts
	% growth of occupational practice learning companies
To increase number of participants	number of participants per education programme
	% growth of participants

Table 6: Performance area 'Innovation'

Critical success factors (KSF)	Performance indicators (PI)
To improve attuning of education and practice	% real and simulated context-bound training hours against total of SBU
	number of contacts of staff with companies and other organisations
	% teachers who are working in professional practice
To increase entrepreneurship of teams (+)	number of project plans of teams which are directed to cooperation with companies and other organisations
	number of new education programmes
	number of finished education programmes
To improve tailor-made education	number of participants accepted between Oct 1st and June 1st
	% students moving up to higher professional education
	% drop outs
	number of participants attaining diploma within regular study period

Table 7: Performance area 'Internal processes'

Critical success factors (KSF)	Performance indicators (PI)
To decrease absenteeism (+)	% absenteeism
To increase satisfaction of staff	% mobility % employees feeling secure % satisfied employees
To improve professional culture (+)	% employees scoring sufficiently on core competences % employees proud on ROC A amount of training budget in relation to personnel costs number of performance talks
To attain an optimal use of staff (+)	proportion direct and indirect staff flexible staff component
To improve quality of examination processes	% education programmes with approving statement of KCE

Compared to the first version of the Performance Card five KSF have been added (marked with + in the boxes) and the PI have been worked out more in detail.

As said, this system of indicators still is less detailed than that of the Inspection. E.g. the Inspection requires the contact and interaction with the participants to be guaranteed by a complaints regulation. The ROC A fills this in another way, by adding instructions in the self-evaluation format which elaborate at a more concrete level what the teams have to or may pay attention to in this respect. In regard to the example of the complaints regulation, in a survey among participants the question is enclosed: can you turn to somebody if you have complaints? In such a way the indicator of the Inspection is linked to a more concrete item. Another example is the KSF 'improving tailor-made education'. An indicator of the Inspection for this was: the availability of a system of intake and assessment. The teams then are provided with a document with the instruction: 'review how are our own intake functions or look into questions with numbers so and so in the survey among participants'. Currently the self-evaluation format is also adapted and filled with more of this kind of instructions.

Clearly it is not the ROC's objective to copy the complete Inspection framework. Point of departure is the ROC's own framework. A check on overlaps

with the Inspection framework has been done, however, because in the end the ROC has to meet the Inspection criteria. If some overlap exists, this is taken into account; if not, then in the year the inspection visits the institution the lacking information is provided otherwise.

The quality manager of the ROC A thinks that the added value of the BSC model compared with the Inspection framework is that the BSC model reviews the complete operation of the ROC while the inspection framework focuses especially on the education aspects.

During the Inspection's yearly investigation of 2004 the ROC A only had a virtual quality care model. It presented a quality assurance model on paper but in fact they didn't had anything. By presenting the quality assurance model the institution did get a hold on questions such as: What is really important for us? Which priorities do we have each year? What are we aiming at? To what do we spend innovation budget?

The assessment of the Inspection in the JO 2004 has been described afore. It stimulated the management of the ROC A to put more emphasis on the development of an own quality assurance model.

Since 2005 the ROC has established a structure with a cycle of annual plans at several levels in the institution. In a yearly framework letter the Board of the institution defines a number of strategic objectives at institution level. These are related to some of the KSF and PI of the Performance Card. E.g. for the study year 2004-2005 two objectives were defined at central level: reduce the number of drop outs and increase the satisfaction of the participants. The ROC has about 20 PI and the Board of the ROC has decided that each team really has to make a plan for action on at least these indicators: decrease of the number of drop outs and satisfaction of participants. Some of these actions may have a short time horizon, other may take more time to bring about results. The teams can use the findings of the surveys among participants as a source of information to base their plan upon.

In 2005-2006 the strategic goals were: attain a greater quality of education, reduce the number of drop outs and increase (education) output efficiency, and to these three were added: strengthen the relationship between education, the world of work and society and improve operational business.

Education sectors and education teams have to elaborate these objectives and indicators in their own annual plans. Education sectors have to make annual sector plans, all teams have to make an

annual team plan. Besides the objectives defined at institution level, education sectors and teams are requested to add their own objectives, accompanied by KSF and PI. Institutional, sector and team objectives and their indicators must have a central place in the annual self-evaluations which are preceding the making of the next annual plan.

In 2005 in some teams the team manager has written the annual plan and discussed this afterwards with his team, in other teams the plan was the result of real teamwork. In all sectors, however, teams still have difficulties in defining their objectives SMART (specific, measurable, acceptable, realistic, time plan related). In the sector Technics, team managers and teachers have a practical orientation and they keep it brief and to the point in the annual plans.

Self-evaluation and formulating annual plans are expected to become more easy now that a new management information system (MIS) has been introduced in 2005, which now is increasingly filled with relevant data. This MIS up till now is accessible at the team managers level and up only.

Performance Card areas, KSF and PI have not been worked out sector-specifically for each sector. And it is also not the intention to do so. Every sector or team of course acts towards these criteria from their own perspective. E.g. the sector Technics is going to cooperate with companies in a completely new manner by housing vocational education at secondary level, higher professional education and companies together for triangular cooperation in a new building, the Technovium concept. If the sector wants to express what is happening there, it has to catch this in a new indicator.

The self-evaluation in the summer of 2005 took place with the perspective of the PKO of the Education Inspection in November that year. The Inspection returns in about three years (2008 or 2009). The ROC now, however, is carrying out already the self-evaluation of 2006:

"It fits in our conception of quality that every year we complete the PDCA cycle (Plan, Do, Check and Act). The system now is complete and transparent and driven automatically by a number of sources".

The system also includes audits which are carried out by the quality manager of the institution. In these audits a check is carried out on the results of the improvement plans of sectors and teams.

The quality manager thinks that it will take the ROC another year before quality assurance has really descended to team level to the teachers. They are not yet familiar with all indicators. They are just mainly fulfilling their daily teaching task and must get more involved in the quality process.

Students are not directly involved in quality care and they are not aware of the Performance Card. In an indirect way, however, they do participate in quality improving activities, e.g. when teachers report the result of the study into student satisfaction (see section 7.4.1). Students at the ROC A participate in these surveys.

The quality management system is based on the Balance Score Card model. According to the quality manager of the ROC, the quality improvement processes resemble more an INK-like model. Behind the indicators there is a kind of assessment list which shows if people are operating quite 'ad hoc' (phase 1) or really system-oriented. That is the intention: turn ad hoc policy into system policy.

The context of quality assurance in the sector Technics, especially the Mechanical engineering programmes

Managers and teachers in the sector Technics, particularly in the Mechanical engineering programmes, believe that quality assurance should be a means to develop and build up and not to control. Although they think that quality assurance is necessary, they experience the Balance Score Card model and the KCE inspection as being oriented rather to control than to development. Teachers do not have the idea yet that this kind of quality assurance brings them profit. They do want to teach and do not like to fill in all kinds of formularies and they are not awaiting outside interference.

From their point of view especially the KCE criteria have too much of a controlling perspective. On top of this, these criteria are focusing on traditional education forms and traditional testing and they do not account for innovative developments in education. E.g. schools have the right to determine the content of the examinations. The move to competence based education brings about a very different way of testing which still is a discovery process for every teacher, all the more for the specific category of teachers who didn't make examinations for the last 20 years. Examinations that are crossing qualifications, as part of problem based education, now prove very difficult to assess for the KCE. The same applies for proficiency tests (see further) at the end of a company practice based project. The Mechanical engineering staff has to explain to KCE how they are doing this. Therefore, the current KCE-criteria rather are an impediment. School has the freedom to develop and experiment but in practice the controlling organisations are quite near by and dominating the scenery.

The sector management concludes that it is

necessary that in the quality assurance process teams will be provided with room for development by giving them responsibility for results, budgets and expenditures.

The perspective from the teaching staff in the Mechanical engineering programmes can be explained by the profound changes the education programmes went through in recent years and the changes that are still going on.

The ROC A has two educations streams, the school based BOL and the alternance based BBL. The alternance based stream is practice oriented. Students have to work in a company for three or four days per week and take lessons in school for the rest of the time. The BOL was rather theoretically oriented, providing only for a number of lessons in practical instruction rooms inside school.

About six years ago the ROC A started a project 'From teaching to learning', the aim of which was to create more space for modern education. The idea was to modernize the traditional way of teaching in which the teacher is just transmitting subject-matters, to an education form in which the teacher is not only a traditional lecturer. Education sectors have the freedom to shape this modernisation process themselves.

In this framework the sector Technics started with a broad sector-oriented plan 'Redesign Technics'. By carrying out this plan the form of education has been altered from a traditional and theoretical one with lectures in classrooms to more practically oriented education: problem based or project based education. Basically this change has been initiated by the wish to attune vocational education better to the learning capabilities of the pupils coming from the supplying pre-vocational schools and to respond to questions from companies which expressed a need for graduates with initiating, problem solving and learning capacities. It clearly has not been motivated by an assessment of the programme by students and/or graduates.

In the same period at national level the quality assurance activities from the Education inspection became more tightly, the KCE was raised as an institution and also a national process has been initiated to obligatory change vocational education at secondary level from being guided by qualifications, sub-qualifications and final terms (learning objectives) to competence based education. Moreover, an organisational restructuring has taken place in the ROC A, by the creation of teams of about 15 teachers with a team manager in stead of big units of about 35 teachers or more with a head of unit.

All these developments put heavy stress on the adaptation capacity of teachers throughout vocational education, not only in the sector Technics or in the Mechanical engineering programmes.

Currently the Redesign Technics plan has resulted in Mechanical engineering programmes which provide students with practice experiences from the start. Year one starts with a general part, getting students to know about technics. Students then are confronted with problems which have been defined by the teachers; the students' task is to solve these problems, being coached by the teacher. Year one and year two are filled with such problem based and project based education. The first half of the third year consists of a practice period in a company. Besides his regular practice activities the student has to come up with, describe and present a problem which exists in that company. In the second half of the third year projects are being defined to solve these problems. Because two students have to work together on such a project a, student-dominated, selection procedure is carried out for the problems that were brought along by the students. Students decide which projects will be carried out (after suitability test by the teachers) and students, teachers and companies together decide on the content of the projects. Projects are carried out in school, with coaching by the teachers and with the possibility of getting support from the company. Project results are presented before school representatives and representatives of two companies: the company for which the project is carried out and a second company which is invited in order to get a more independent assessment of the results, this also with the intention to account for the KCE criterion that companies should be involved in examinations of students. The fourth year programme is now being carried out as a pilot project in the BOL stream. It consists of a practice period of a student in one company, working independently for in the beginning three and later four days per week, coached by a teacher and a practice coach in the company. A presentation of the results again serves as the proficiency test, before a panel of coaching and non-coaching teachers.

The mechanical engineering programmes characterise the activities in the first three years as 'vocational task based learning'. The tasks established in the metal sector up to now seem somewhat artificial and the sector now has contact with the metal sector in another ROC in order to learn from their experiences.

The introduction of problem - and project based education has been a big turn around for the teaching staff in the sector Technics. So far the change from the teaching role into the coaching

role has not been taking up equally by each teacher. Everybody is still doing everything, and the quality of all these activities is not always sufficient. Some teams still do lectures in classrooms and are oriented to qualifications and final terms, with nothing such as competence based or independent learning. Another team which had to develop a new programme has done this completely competence based. The learning process towards new roles has been supported by a tutor training and intervision activities. Now, some 6 to 7 teachers have got really acquainted with the tutor role.

Nevertheless the changes have not come to an end yet. The process towards competence based education continues until 2008, national requirements influence the school policy, e.g. the wish to better attune pre-vocational education, secondary vocational education and (tertiary) higher professional education (in the so-called professional column), and the sector Technics will move to a new building in the near future.

Altogether the discussion about these developments has resulted in a future-oriented plan to build a new school where secondary vocational education, sector Technics, higher professional education, sector Technics and local and regional companies in this sector cooperate to provide students with the best possible practice-related modern forms of education.

Now, besides the general ROC goals mentioned afore, the sector Technics has a very specific goal to realise: to change the way of teaching in the new Technovium building, starting at the end of 2008, breaking down the barriers between secondary VET, higher VET, pre-vocational preparatory education and companies. Less drop outs, more participants and satisfied participants become deducted objectives. The sector works from a development perspective, with the central question how to fit the education and the organisation into competence based education. The criterion to assess their operations, according to a member of the management, should be that the education programme together with companies provides for good people.

Sector goals for 2008 are focused towards company project based learning as a concrete realization of competence based learning. At the basis of the programmes are real time projects which are carried out by students in the Technovium or within companies, according to a set of requirements which have been defined by the schools and the companies together. The programmes must be future-oriented, companies have to tell what kind of employees they will need in 3 to 4 years.

In the first part of the study programme stage most projects will take place in the Technovium because otherwise it would cost the companies too much time. Projects will be influenced by processes which are happening in these companies, e.g. the design methods are delivered by the participating company, which is only possible if such a company is really connected to the education programme. The companies have to take care that real practice simulations are offered in the Technovium and that the machinery is up to date. The ROC takes care of the education component inside the school, among others by designing multidisciplinary projects and multilevel projects, showing what mechanical engineering means at BOL level 3 or 4 or at higher professional level 5. In the second part of the programme the schools collect projects from the market which will be organised in the same way as it is now, by students in their third year practice period. A new idea is to have this also done by so-called project co-innovators who go to companies to look for projects in order to match offer and demand. This would be one of the new teacher roles [1].

The intention of the ROC's cooperation with professional higher education and pre-vocational education schools is to develop education programmes and an education organisation which fit the needs of students in secondary technical vocational education but also of potential students still residing in pre-vocational education (VMBO) and students who aim to continue their education career in higher professional education. Pupils in VMBO should be enabled to carry out practical components of their favourite programme in the Technovium.

ROC should be enabled to choose at which level they want to graduate, level 3 or 4 but also at higher professional education level 5. For level 5, projects then will be made more complex than level 4 projects, for level 3 more simple.

Quality assurance systems, however, until now hinder this process, e.g. the KCE requirements. To go to level 5, students first need a level 4 diploma. It also is a problem that quality assurance systems in VMBO and in higher professional education differ from those in secondary VET.

In the restructuring process that started in 2002, this very new idea of the Technovium certainly has not yet descended in the minds of the teachers. Teachers, classes and time tables are concepts that will not fit anymore. A communication plan to involve everybody will be put into operation soon. In order to prepare for all the changes described afore, in the very near future the Mechanical engineering team of 20 people will define some 5

to 6 new teacher roles more clearly. Then these roles will have to be staffed proportionally, which in the end is the responsibility of the team manager. In the team teachers may express their preferences and needs for training and the best possible division of tasks will hopefully result from the discussion.

Relationships with the world of work

The sector Technics has had a long tradition of good connections with the world of business but the other sectors are catching up now; ministerial notes, regional ambitions, policy notes of the umbrella organisation for secondary vocational education schools, all urge for this closer connection.

The communication with the business community in the sector Technics is organised by the 'Friends of technics associations' (Friends of electrotechnics with about 20 member companies, Friends of mechanics with about 12 relatively big companies, and recently, the 'Friends of general operational technology). These associations which are in different stages of development, discuss with the education programme about the content of the programme, about the learning processes, practice periods for teachers, availability of places for practical learning within companies, guest lessons, education in the Technovium, and also more strategic questions. They also provide for questions from practice which can be solved by students at school or within the company.

The school is also supported by the Technocentrum of the regional Chamber of Commerce which takes all kinds of initiatives in regard to the relationship between education programmes and companies, especially in bringing the companies together. It remains, however, a difficult process, especially in times of slowing economy, and always dependent on some companies which really want to go forward.

In the metal sector, companies have established the 'Foundation professional metal education' which serves as an intermediary for organising practice periods in companies for students following a BBL-trajectory in the ROC A.

Furthermore since two years every sector has a working field committee or an Advisory Council. Mostly, however, they are not a platform for cooperation at operational level. They discuss issues more at policy level.

The Inspection but also the KCE ask questions about the involvement of companies in the education process, e.g. questions such as how is the involvement of companies in the development, assessment and carrying out of examinations.

During inspections both institutions talk with a (small) sample of companies about their involvement.

Quality assurance in the Mechanical engineering programmes

Since 2005 the Balanced Score Card or Performance Card quality management model has been introduced for the Mechanical engineering programmes and the sector Technics. Starting point is the Performance Card which is used as a tool for self-evaluation and for the annual plan that sector and teacher teams have to make. At the end of the study year 2004-2005 a first self-evaluation report has been produced, the second report was going to be discussed at the end of the study year 2005-2006. The Performance Card that was prepared for the second self-evaluation differs from that for the first one (see section 7.2).

In 2005, the way in which the teams coped with the BSC format for self-evaluation was quite different. Some teams were very conscientiously giving additional remarks and comments, other teams restricted themselves to mainly yes and no answers. According to the team manager Mechanical engineering the last way of coping is not enough. Such yes and no answers have to be explained.

The self-evaluation in the sector Technics in 2005, which has been using the KSF and indicators of the 2005 Performance Card, shows that KSF and PI have been worked out in different detail for every performance area. It also shows that some specific indicators have been used as indicator for more than just one performance area or KSF. In the self-evaluation report it further appears that some performance areas, KSF and PI are much more accompanied by improvement points than others.

The self-evaluation report uses the performance areas in combination with KSF as points of departure for an analysis of the current situation. To start with, every KSF is related to one or more quality criteria of the Education Inspection's framework (see chapter 5) and points out in regard to every Inspection criterion which education teams have mentioned problems. E.g. for the performance area Innovation, KSF Improving tailor-made education, the self-evaluation report refers to no less than 10 Inspection criteria. Subsequently the report describes the problems identified in the self-evaluation in regard to every criterion, the efforts which in the past year have been made in regard to these problems by the sector and its management, and an assessment of the role of the sector management. The last step of the evaluation is that for every criterion points of improvement are

formulated, some of which are very concrete and specific and some others are rather global and need to be worked out further.

A second part of the self-evaluation consists of an evaluation of the results that have been achieved with the sector plan for the reference year. For every KSF for which an action had been planned in the sector plan 2005, an assessment is made of the action that was taken and of its results. Where this is thought to be necessary, e.g. when some improvement points have not been realised, possible further improvement points in regard to the action are being distinguished.

Countless improvement points are mentioned in the self-evaluation report. This is difficult to handle in an action plan. The team manager Mechanical engineering solves this problem by focusing the team plan on a restricted number of subjects of which at least one will be related to the further introduction of company process based learning, because this is the most important subject for the Mechanical engineering teams.

On the basis of the self-evaluations only subjects are taken into the annual plan and the improvement actions which according to the team manager and the teachers can be influenced. E.g. for the organisation of practice periods for teachers, in the team budget and planning 40 hours were reserved for teachers who would like to go for a practice period. The forthcoming study year this budget will be extended. Within the teams some teachers think that is superfluous to go on practice period, others are very enthusiastic. The process is started with the last category and they communicate their enthusiasm by presenting their experiences which they kept in a logbook. In the end every teacher has to undergo this experience.

In the BS Card, by the way, practice periods for teachers are mentioned neither in the KSF nor in the PI. It will be put under the heading 'satisfaction of employees'.

An important point is that ROC objectives are being worked out in measurable, quantifiable (SMART) indicators, such as the % of drop outs, % of satisfied participants, % increase in participants. It is rather difficult to exert a perfect control on the influence of these kind of factors:

'It should also be taken into account if the criterion is related to the assessment of a student, the assessment of a group of people about the group and individuals in the group, the definition of what is involved, the demarcation line between high and low scores, etc'.

The solution of the manager is to take a number of subjects into the team plan which seems to be feasible for the team:

'If you put many improvement points in an annual plan, this will freight a number of people. If the plan is less detailed, some of the things that are not enclosed in the plan will, nevertheless, be realised'.

The team manager thinks that the extension of the number of PIs is not a good idea, because:

'You have to do lots of things simultaneously which you are only able to if you have gone through a planning cycle already. If you are introducing an innovation you have no idea, which influence factor has which consequences where, how and why. It is very difficult to measure things and indicate causes. If the number of participants grows, is that a consequence of the way we are working? And what if the following year, with the same way of working the number decreases again? The question is: how do you steer and can you show that this steering has the result you aimed at, especially in case the surroundings have changed, e.g. when a traditional form of education has changed into a competence based one?'

And talking about the team's and management's action possibilities, he continues:

'Responsibility for results asks for steering possibilities as well as team and individual competences which do not yet have been realised. You start from scratch and not somewhere halfway. This is a different perspective than defining some criterion, moreover in measurable dimensions, e.g. the percentage of satisfied participants. We would like to know on which points we could work to get a satisfied participant. Good education, I think is an important issue for students, and not being able to get home in time or to receive only few homework. We have to provide a clear, transparent structure for students: what do we expect from you, what can you expect from us. This contributes to a satisfied client but also to a satisfied employee'.

Information sources for quality assurance

Very recently since 2005, the ROC A has introduced a management information system, which can be used, among others, to deduct figures for evaluation and quality reports.

Another means to collect information in order to be able to make statements about quality is the participation in a number of surveys. Connected to the BSC is a ROC-broad measuring plan which includes surveys that have to be carried out by each sector, with even additional surveys at the initiative of the sector Technics. This measuring plan is meant to collect data for the performance indicators.

According to the management of the sector Technics it is difficult to translate the data of these surveys into PI.:

'Sometimes it appears that we have collected survey data and that we look for an accompanying performance indicator'.

Another objection is that the time in between two surveys is too short to enable improvements to be carried out. Before an improvement plan is turned into action, the next survey already takes place.

A working group with representatives of the sectors now is discussing a better description of performance indicators in order to bring them closer to practice and the sectors, and subsequently to decide which measuring instruments go with them. They want to stop the abundance of surveys and questionnaires.

The sector Technics and/or the Mechanical engineering programmes are participating in the following survey researches:

For four years, a yearly questionnaire for first year students is carried out, which is only organised in and by the sector Technics (n = 159 in the 2003-2004 survey), in order to get a picture of how, after a few months, students appreciate school and the education programmes. Questions, which are formulated by the teachers assisted by the sector quality manager, refer to facts, opinions about facts and preferences. Answers can be analysed down to education programme level and results are being compared at programme level. Results are discussed with students in the class rooms, resulting in the selection of three improvement subjects that will be worked on.

Since 2001 biannually, the national ODIN-survey of the Youth Organisation Vocational education (JOB) takes place, in 2005 among 135.000 students in VET. Results are analysed down to ROC and education sector level. In the questionnaire 86 questions (with answers on a scale ranging from 1 - very bad, to 5 - very good) are enclosed, which are clustered in 12 thematic areas: information services, organisation, learning at school, coaching, issues outside the lessons, order and security, building and the environment, practice periods BOL, workplace BBL, competences, participation and general satisfaction. The thematic areas in italics contain many questions about the primary process of teaching and learning. The report with the figures of the sector Technics can be downloaded free of cost from the job-odin website. The average scores of the sector are benchmarked with the average scores for the whole sample.

Since 2001, a yearly survey among graduates

(the MBO Card), about one year after graduation, is carried out in about 15 ROCs all over the Netherlands, including ROC A (sample of about 18000 graduates, response about 60 %). Questions refer to what graduates are doing after graduation (having found a job, going to further studies, combining work and learning, being unemployed, or other), in which sector is the job, in which region, which employer, in which sector is the further study, which education programme, which school, opinion about education institution and programme (content of the programme, personal coaching at school, preparation for searching work or for further study, guidance for work or further study, coaching for practice education by the school, the usefulness of the education programme). Results are analysed down to education sector level and are partly benchmarked with national figures from the total sample.

Since 2003 every two years, the content monitor which is a ROC-broad survey with a questionnaire in which teachers respond to 32 questions which cluster in 7 domains: school organisation, the colleagues in the team, the organisation of the team, the management of the team, work satisfaction, personal development and working conditions. Scores can vary from 1 to 8 and results are analysed at team level. In the 2006 survey work satisfaction scores by far the highest average value in the Mechanical engineering team's assessment. School organisation, organisation of the team and management are the dimensions with on average the lowest scores (5,7; 5,8 and 5,7 respectively). The team scores on every question are also benchmarked with the total scores of the sector Technics and with the evolution of the scores since the last survey.

Another survey which recently has been initiated is a survey among companies. Companies which offer vocational practice work places are asked how students function during their practice period or as a young employee. These survey results are not yet available but can also be used as a source of information for quality assurance.

The sector Technics also would like to introduce evaluation reports from companies about the practice periods and projects, but the capacity to analyse reports of 1000 students and more is lacking.

Surveys are supported by another information tool in the form of student platforms. Formerly each sector manager periodically talked with students about their experiences and opinions, which often resulted in defining action points. Now, periodically every quarter, team managers have a conversation with student representatives (two per class, totally 4

to 10 people), in which students can ask questions and discuss problems. Team managers have to draw conclusions and translate these into teacher activities. Small problems can be tackled in this way but it is more difficult to provoke structural effects. For some team managers it is no problem to involve students in thinking about how the education programme can be improved, for others this seems to be more difficult. Nevertheless, they all think that these talks with students are very important.

Management and teachers in the sector Technics think that the self-evaluation which has been introduced for the first time in 2005, is the most important instrument to prepare a new annual plan. It is a brand new process but teams are already positive about the profit it brings to them.

Conclusions

In the Netherlands in the last decade secondary vocational education has been subjected to very dynamic developments in a rather turbulent environment. Part of these developments has been that dissatisfaction has arisen about the services which secondary vocational education institutions and programmes were rendering to society. Government policy had given schools rather much autonomy but as a consequence of signals of dissatisfaction, since 2000 much more attention has been paid to setting up a rather strict national system of quality assurance in this sector of the education system. The Education Inspection and later the KCE play an important role in this quality assurance system, among others by inspection activities and by stipulating a broad and detailed set of quality indicators. Quality assurance by the Education Inspection and the KCE mainly have as focal point the primary process of teaching and learning.

Another important quality requirement is that an education institution should build up a quality assurance system itself.

Since a couple of years vocational education institutions, confronted with this quality require-ment, are introducing quality assurance systems in their organisations. Although history is short and a general picture of this introduction process is not available, there are sufficient indications that schools still are experiencing many problems in setting up quality assurance or quality management systems in their organisation. One of these problems is the different scope of the quality requirements of the Education inspection and KCE and many quality management systems having an ISO-like perspective. Now, there seems to be a trend that education institutions and education programmes determine quality indicators, which in any case account as much as possible for the framework of the Education Inspection.

A good example of an institution which in spite of many efforts still has difficulties in introducing quality assurance is ROC A. The case ROC A not only shows that teachers still have to get used to a formal quality assurance instrument, especially when this instrument uses indicators which have no direct relationship with their daily practice, but also when the actual developments in a sector or an educational programme are beyond the scope of the indicators defined in the instrument. Quality objectives at sector level do not necessarily correspond (fully) with overall objectives of the education institution. Moreover, developments in quality assurance at school level cannot be viewed isolated from the context of national developments and policy decisions.

A real gap may exist between on the one side what people (teachers, stakeholders such as students, parents, employers) think what is important for the primary process at school, and the outcomes of a quality assurance or management instrument on the other side which uses indicators which define quality indicators in SMART quantifiable output terms, such as the number of drop outs of the number of graduates in a specific year. The SMART principle may reduce reality and perspectives to a number of figures, which have limited validity in regard to the universe they claim to indicate. The way in which management, teachers, students and employers cope with quality assurance in ROC A, is a clear indication that the way in which quality assurance processes influence relevant dynamics of the institution, most probably depends more on the organisational embedding of the quality assurance processes than on more or less detailed quality indicators. In other words, the future orientation and dynamics of quality assurance are not so much dependent on the subjects that are enclosed in the quality indicators, but more on the procedures which are used to embed quality assurance processes in the internal organisation of the education institution.

[1] Co-innovators is a project in which several ROCs are participating. The intention of the project is to develop the concept of company project based learning (BPGL). The more general idea is to analyse the innovative developments in the region and how education is able to link up with these. A project group has formulated a programme of 7 requirements for BPGL and has also described new roles for teachers who go into the business field and who are able to match the offer of and demand for projects.

Table 8: *Netherlands: strengths and risks in the presence and in the future*

	Presence	Future

Positive	▪ an education institution should build up a quality assurance system itself (since 1997)
	▪ different established data collecting processes as:
	  - yearly survey among graduates (the MBO Card), about one year after graduation (since 2001)
	  - biannual national ODIN-survey: the report with the figures of the sector Technics can be downloaded free of cost from the job-odin website. The average scores of the sector are benchmarked with the average scores for the whole sample (since 2002)
	  - content monitor: survey with a questionnaire in which teachers respond to 32 questions which cluster in 7 domains (since 2003)
	  - survey among companies (since 2005/2006)
	  - yearly questionnaire for first year students; results are discussed with students in the class rooms (since 2002)
		▪ survey results among companies are available and can be used as a source of information for benchmarking and quality assurance.

Negative	▪ different scope of the quality requirements of the Education inspection and KCE ▪ many quality management systems having an ISO-like perspective ▪ quality indicators sometimes have no direct relationship with the daily teaching practice ▪ gap between what people (teachers, stakeholders such as students, parents, employers) think what is important for the primary process at school and what the indicators measure as quality	▪ orientation and dynamics of quality assurance are more dependent on embedding quality assurance processes in the internal than on the subjects

Bibliography

BVE Raad (1998): BVE op weg naar 2005, Strategisch beleidsplan BVE Raad 1999-2005. De Bilt: BVE Raad.

Inspectie van het onderwijs (2002): Het toezichtkader BE. Utrecht: Education Inspection.

Inspectie van het onderwijs (2002): Veranderend toezicht. De Inspectie van het onderwijs en de Wet op het onderwijstoezicht. Den Haag: SDU.

Inspectie van het onderwijs (2005): Onderwijsverslag 2004. Utrecht: Inspectie van het onderwijs.

Inspectie van het onderwijs (2006): Onderwijsverslag 2005. Utrecht: Inspectie van het onderwijs.

KCE (2004): Het toezichtkader kwaliteitscentrum examinering beroepsopleidingen. Amersfoort: Kwaliteitscentrum Examinering Beroepsopleidingen.

Ministerie van O,C&W (1999):, Variëteit en waarborg, voorstellen voor de ontwikkeling van het toezicht op onderwijs. Zoetermeer: Ministerie van O,C&W.

Ministerie van O,C&W (2000):, Naar een stimulerend toezicht. Zoetermeer: Ministerie van O,C&W.

Ministerie van O,C&W (2000): Koers BVE, Perspectief voor het middelbaar beroepsonderwijs en de volwasseneneducatie. Den Haag.

Ministerie van O,C&W (2004): Invoering nieuwe examensystematiek in het beroepsonderwijs per 1 augustus 2004. In: Mededelingen OC&W nr. 13, p. 65-68, Den Haag.

Ministerie van O,C&W (2005): Regeling houdende vaststelling landelijke standaarden voor de kwaliteit van de examens van de beroepsopleidingen. In: Mededelingen OC&W nr. 2, p. 9-14, Den Haag.

Nieuwenhuis, L., and others (2001): Kwaliteit getoetst in de BVE. In: Proceedings ORD 2001, Amsterdam, Universiteit Amsterdam, p. 234-235.

Onderwijsraad, WEB (2001): Werk in uitvoering, een voorlopige evaluatie van de Wet Educatie en Beroepsonderwijs. Den Haag: Onderwijsraad.

and further:

- Education Inspection, Quality reports of ROC A, 2002-2003-2004-2005

- Education Inspection, Quality reports of many other ROCs

- KCE, Nieuwsbrieven 2005-2006

- ROC A, Information guide 2004-2005

- ROC A, Reports of survey research

Internet resources:

- www.owin.nl

- www.kce.nl

.

7 Country Report Slovenia

Pevec Grm SLAVA, Češarek METOD, Klara S. ERMENC

National Institute for Vocational Education and Training (CPI), Ob Železnici 16, Ljubljana, Slovenia

When Slovenia became a full member of the EU, numerous measures dealing with quality assurance had already existed at different levels. The Phare programmes were very important for the development of quality in VET in the pre-accession period as they helped to develop the system for preparation of occupational standards and new curricula in VET by improving flexibility and assuring better response to the needs of the labour market. As far as metal sector is concerned new occupational standards for all levels of VET have been adopted and currently new curricula, competence-based and modular structured, are being developed. It all presents a great challenge to schools as they have to set up developmental teams which are in charge of developing school curricula in close cooperation with local companies. In competence-based curricula a great emphasis is put on developing professional and key competences, trying to make a close link between theoretical and practical knowledge. It requires teachers to cooperate and constantly upgrade their knowledge. A strong commitment on quality management (QM) is needed. According to the new VET Act (adopted in July 2006) QM at schools will be obligatory.

7.1 Status, Activitites and Current Discussion

According to the data gathered by the Chamber of Commerce and Industry of Slovenia and the Metal Industry Society, the companies in the field of metal industry employ 21.4 of all employees in the processing industry. They produce 22.4 % of the profits and 25.7 % export of the whole of processing industry. The metal industry in Slovenia is divided into four basic divisions: metallic products, machines and devices, vehicles and trailers, other vehicles and boats. The added value on an employee in the field of metal industry is increasing yearly (21,218 euros in 2002). The highest added value on an employee is achieved in the field of production of motor vehicles and trailers (29,534 euros).

The metal industry exports its products worldwide. Its most important partners are Germany, France, Italy and Austria. The development of the metal industry in Slovenia is largely dependent on development of the European industry. Therefore Slovenia followed Europe's example and embarked on a sustainable development plan. In practice this means that the government and public accepted the sustainable development policy for a fundamental orientation of the economic development. Basic characteristics of such a policy are:

- Reduction of negative impact of technology on the environment.

- The sustainable development should become an effective driving power behind the innovations in the processing industry.

- Proactive role of the processing industry, which should control and encourage technological factors to operate sustainable and nature friendly.

- Continuous improvement of knowledge and abilities. Transferable skills are becoming more important than specific technological skills. Cooperation and networking among the companies, industrial sectors, and colleagues within companies is rapidly becoming the key ability on the companies' level to bring competitive advantages.

The SWAT analysis conducted by the Centre for the international competitiveness at the Chamber of Commerce and Industry of Slovenia shows positive results for the operational and developmental capabilities of the metal sector. The analysis also showed that even though the processes in this branch of industry are mostly restructured and optimised, excess of workforce can still be found, especially in the management. The branch's cadre policy will have to adopt a long-term planning, otherwise there will be a shortage of skilled workers without whom there is no development. At the same time the employees will have to be trained permanently to change the cadre structure and implement multitask positions of employment in the production.

The adjustment of the educational system to the needs of the industry and shaping of the contemporary profession profiles as a basis for the preparation of the education programme is one of

the most important tasks and opportunities on the human resources field.

Activities

In the year 2005 the National Institute for Vocational Education and Training executed a project entitled Analysis of the competences on the field of mechanical engineering, financed by the European Social Fund. The representatives from the Chamber of Craft and Chamber of Commerce and Industry of Slovenia, leading companies of the branch, the experts from the field of mechanical engineering and the representatives of the Trade Union were all involved in the project.

The working group reformed the whole structure of existing documents called "nomeklatura poklicev". They also prepared the occupational standards, which are currently in use in the field of mechanical engineering. The occupational standards will serve as basis for the preparation of contemporary competence-based educational programme for all levels of education and training in metal sector.

Together with the adjusted programmes for the nationally-mixed regions, there are more than 30 valid education programmes for mechanical engineering, metallurgy and mining in Slovenia. Mechanical engineering tends to predominate, thus mining and metallurgy are in minority.

In the academic year 2003/2004 the schools began to implement the renovated programmes of secondary vocational education (4-year education): mechanical technician, mining technician. Other three-year secondary vocational educational programmes were also implemented: car mecatronic, or mechanic and others.

These vocational programmes were all based on the model of joined implementation of the secondary vocational education programmes in the field of mechanical engineering, which enables the execution of the school or dual system education in accordance with the apprenticeship contract.

The model for the joined secondary vocational education programmes for mechanical engineering includes a collective core of 12 educational programmes: general part of the programmes with the curriculum, as well as the basic technical subjects which can be implemented for several programmes together. Specific technological gaols as well as practical training are being implemented in the second and third year, for each programme individually.

The goals of the joined implementation of the mechanical engineering programmes are: protect

education for the profession with low enrolment level and the professions that would not be implemented because of the low enrolment level; assure that schools and dual education share the same standard; standardize the extent and contents of the general part of the programme, joined implementation of technical and theoretical subject and practical work, reduce the partition of the subjects into theoretical and practical, have at least 24 weeks of practical training in the company, enable students to acquire broad technological knowledge and skills and also specialised skills and encourage schools to use individualised methods of teaching and learning.

There are 30 schools in Slovenia that work in accordance with technical engineering education programme and one school offering the mining education programme. The mechanical engineering education programme is very popular among the adult education; it is implemented in the field of mining and geotechnology as well.

Current Discussion

On the basis of the new occupational profiles the reforming of the education programme is being conducted. The European recommendations (goals) for the further development of Vocational education and training have also been taken into consideration.

Here are some most important conclusions:

- The fundamental goal of the vocational education is the employability of the younger generations, which means that they should receive fundamental and up-to-date knowledge and competences during schooling. The knowledge and competences will enable them to compete on the labour market and at the same time assure them personal growth, development of the professional career and assuming different roles in the society.

- The cooperation between education and companies should be straightened, since it assures the quality of education and the connection between education and work.

- More efforts should be put into teacher training, especially in the case of new information technology and new methods and approaches of teaching.

- Bigger flexibility of the education programmes as well as ability to adjust to the needs of the labour market demand faster responses to the changes in the environment, which means that various methods of achieving qualifications should be implemented.

- Offering different possibilities for continuous education and the importance of lifelong learning are of key importance for the continuous development of the vocational education and training, as well as for the development of society built on knowledge.

The Metal Sector – Requirements and Needs for Teaching and Learning

It all presents a great challenge to the teachers, as well as obligation and responsibility. More professional autonomy is being given to the teachers, but it also requires them to be more proficient and dedicated to their profession. Competence-based programmes, trying to link theoretical and practical knowledge closer together, require teachers to cooperate between each other and constantly upgrade their knowledge.

Because the schools are spread widely and the number of enrolled students is relatively low, some schools have difficulties maintaining suitable conditions and equipment, which makes it even harder for teachers to operate. There is also a shortage of suitable technical equipment and literature needed for training for certain occupations.

Because of these factors being a teacher is once more rapidly becoming more and more demanding and responsible. It is evident from the interviews, introduced further on in this report that the teachers are aware of these challenges brought to them by the changes in the vocational education system and are willing to face them.

7.2 Case Study

Short Review of Quality Assurance Elements in Slovenia

When Slovenia became a full member of the EU, numerous measures of quality assurance had already existed at different levels. The Phare programmes were very important for the development of quality in VET in the pre-accession period as they helped to develop the system for preparation of occupational standards; and as a measure of quality assurance; the possibility was also given for the certification of national occupational qualifications. The National Reference Point for Vocational Education and Training (NRP) enables the comparison of educational standards in VET and provides the transparent overview of national qualification structures which should be included in the National Qualification Framework.

Slovenia has also made an important step in the development of the curricula in VET by improving flexibility (modularisation) and assuring better response to the needs of the labour market. It is very important that a new culture of learning and teaching is gaining ground. Other important elements from the view of improved quality assurance include: system of (partly) external examination of skills and competences, preparation of reports on results in external examinations, system of permanent in-service teacher training co-financed by the state, monitoring of the results via specialised public institutions (but systematic analyses are still lacking), as well as important investments from the national (educational) budget into the equipment, school manuals and public institutions which support the development efforts of schools.

The Ministry of Education and Sport supports better access for all, greater efficiency and higher quality of VET also by modified funding system of schools and other providers of VET, which goes in the direction of strengthening their autonomy and rewarding their output.

New VET Act (adopted in July 2006) in Article 14 call the attention to the "quality management": an obligatory component in the management of VET schools; each school is obliged to set up a team responsible for quality development and assessment and prepare an annual report on self-evaluation.

It would also be necessary to clearly define the criteria and indicators for monitoring at the national level, with special emphasis on output standards which are valid both for the providers and individuals. At the moment, we still do not have the plan for the national quality indicators in VET regarding employability and responsiveness for matching supply and demand at the labour market.

Projects for Quality Assessment

Apart from the above-mentioned measures for better quality assurance at the national level, the first special projects for quality assurance were launched, both at the national level and at the level of some chosen institutions. "The Mirror Project"

(National Education Institute)2 was introduced in 50 schools in the period from 1998 to 2002. The project was based on the Scottish quality criteria model. In 2002, the project was replaced by a similar project set up within the Ministry of Education and Sport. The Learning Schools Network project (School for headmasters)3 was launched in 1998. The project aimed to improve classroom practice. It was assumed that classroom practice could be improved through the development of collaborative culture in schools. The main objective of the project was to encourage and maintain the process of self-improvement of schools, to develop collaborative ways of learning within and among schools and to share examples of good practice. It was expected that the project would contribute to higher quality of work in schools, not only in terms of results, but also in terms of commitment to improvement. The school improvement teams were trained in planning, management of changes, teamwork and problem solving. Special areas of development were identified within the participating schools. The following areas among the selected priorities deserve mentioning: student's assessment, student's working habits and motivation, cooperation with parents, development of social competencies, cooperation among primary and secondary school teachers, communication, active school breaks, the school environment protection etc. The project involved primary schools as well as gymnasiums and vocational and technical schools. The project became a part of the School for headmasters, and had attracted 168 schools until 20044.

In the framework of the Phare-Mocca programme,5 the National Institute for VET ran a project entitled "The Concept of Quality Assessment and Quality Assurance in VET". The concept was based on the Dutch and Danish model of quality assurance in VET and it assumed that TVET schools have the obligation to draft their own plan of quality assurance based on four obligatory areas:

- management;

- performance in the educational process;

- results/outcomes of the educational process;

- values and school climate.

The obligatory indicators included:

- for performance in the educational process: collaboration with schools and enterprises;

- for results of the educational process: follow-up of the information about the employability of graduates.

Vocational and technical schools also had to submit a report about the realization of their plans on quality assurance. The report had to be prepared with a special self-evaluation method. The National Institute for VET launched the project in 12 schools, but the project has never been completely finished. The report on "The Concept of Quality Assessment and Quality Assurance in VET in Slovenia" was published in the final publication of the Phare-Mocca programme in October 2000, which was supported by the European Training Foundation.

Several interesting projects should be mentioned among the projects for quality assurance. The Slovene Institute for Adult Education launched the project entitled "Offering Quality Education to Adults (QAEA)" 6 in 1999.. By 2005, the project was used by 45% of all folk high schools in Slovenia, 19% of secondary schools which carry out adult education programmes and 7% of private educational organisations which provide verified adult education programmes. If the organisation decided to join an organised and funded implementation model, it would have to comply with the following standards:

- collective beginning, deadlines and end;

- directives for quality group formation;

- methodology for preparation of the self-evaluation report;

- methodology for preparation of the quality development plan;

- recommendations for communication with various users;

- duty to enable training on self-evaluation for quality group members.

The Ministry of Education, Science and Sport founded the National Commission for Quality Assessment and Quality Assurance in Pre-School Institutions, Primary Schools, Secondary Schools and Adult Education Institutions in 2003. Its role is to

---

2 Zavod RS za šolstvo, project Ogledalo. / National Education Institute. Mirror project.
3 Šola za ravnatelje, Mreža u e ih se šol. / School for headmasters. Learning Schools Network.
4 Ways towards Quality in Education, International Conference Proceedings, 8-10 April 2000, National Leadership School, Open Society Institute.
5 Phare – Mocca programme, Concept of Quality Assessment and Quality Assurance in Vocational Education and Training, Ministry of Education, Science and Sport, Ljubljana, October 2000.

6POKI- Offering Quality Education to Adults (OQEA), Slovene Institute for Adult Education, Ljubljana, 2004.

connect various activities in the area of quality assessment and development, and provide less fragmented and better coordinated work in the area. The commission compiled a draft of a basic manual which contains 5 different areas and indicators for quality assessment7.

- attainment and achievements;

- teaching and learning;

- ethos and support for pupils;

- management and leadership;

- cooperation with parents and stakeholders.

The project contributed many useful tools, questionnaires and indicators, but it was not implemented on a large scale, although it promoted the development of self-evaluation in schools. In 2005, the government established a new national committee with the aim to upgrade the Quality Assurance Project. The implementation is to be financed by the European Social Fund. The project is very extensive since it is to be initiated simultaneously in pre-school institutions, primary schools, TVET and high schools.

All quality assurance projects were important because they raised the awareness about the importance of quality at a school level.

Description of the Case Studies

A lot has already been done in many Slovene educational institutions in terms of development and quality using different models and approaches. However, there are still many educational institutions where systematic development and improving quality is a major challenge. Thus National Institute for Vocational education and Training has decided to dedicate phase one of QualiVET project to establishing what a current situation in terms of development and quality at two school centres is (School Centre Novo mesto, School Centre Celje). The choice of the school centres was not random. They are typical representatives of the above-mentioned educational institutions: School Centre Novo mesto - Secondary School of Mechanical Engineering has already taken part in some projects for improving quality, has accepted the idea of permanent development and has already taken some important decisions to

---

7 Modro oko: Ugotavljanje in zagotavljanje kakovosti v vzgoji in izobraževanju / Wise Eye: Quality Assessment and Assurance in Education in 2001, 2002, Ministry for Education, Science and Sport, Ljubljana, 2001.

ensure its continuation. On the other hand School Centre Celje - Vocational and Technical School for Mechanical Engineering, is aware of the importance of quality but is still at the beginning of its systematic development.

For a successful quality development and its further implementation it is important for all school staff including the management to participate. They have to reach a consensus on all decisions which should not be imposed by any outside institutions. All changes need to be made gradually. Staff members need to adopt certain changes and start using it systematically. Nevertheless, they still need to follow certain procedures and processes defined by current legislation.

In the project's phase one project teams were organized. They were a link between The National Institute for Vocational education and Training and individual schools. There were nine project team members at School Centre Novo mesto - Secondary School of Mechanical Engineering and six members at School Centre Celje - Vocational and Technical School for Mechanical Engineering. The members were teachers and both principals.

A survey was conducted by project teams at both school centres. Structured interviews were used for interviewing two principals and twelve teachers.

Vision

School Centre Novo mesto, which has already dealt with improving the quality of its work, has formed its vision in cooperation with community, employees, parents and students. It is a part of the annual work plan. The principal emphasises the main future goals: improving lesson quality, reducing the number of drop-outs, encouraging school-community cooperation, maintaining school's reputation in community. Teachers mainly want better equipment, more motivated and active students, increase of students´ safety and well-being at school and improving their practical skills. They all agree that following the school's vision should be a constant process.

School Centre Celje does not yet have a vision. The principal defines their vision as becoming a regional centre for vocational education (from initial to advanced levels) but the teachers are not familiar with this vision since it is not written down anywhere (they assume it exists). They think the vision should be more practical: acquiring new education programmes, cooperation with community, establishing the link between theory and practice. So far a lot has been done on improving teamwork, introducing new pedagogical

approaches, teachers´ permanent professional development and training, research work and school-parents cooperation. Students do not know anything about the school's vision.

Current processes in changing the institution

When the interview was conducted the principal and teachers at School Centre Celje were most occupied with new education programme mecatronic, which was a challenge also in terms of didactic approach since it offers more goal-oriented teaching, more inter-subject cooperation, etc. Otherwise teachers are not acquainted with current development activities. They face numerous problems: large classes/groups, lack of space and information, being overburdened, not having adequate level of formal education. They want more process knowledge and knowledge related to technology developments.

In Novo mesto teachers enumerate permanent professional education and training, projects and new education programmes as their current activities. They are trying to reach the following goals: increase of students´ responsibility and motivation, more teamwork, school-community cooperation, self-evaluation, positive model examples. They have been implementing and reflecting new teaching methods on various levels for two years.

They are also facing many challenges: too large classes, lack of space and adequate student's books, teachers being overburdened, low students´ motivation. The principal prioritises the changes in relationships, climate, students´ motivation, teaching methods and developing a sense of belonging to the school. She also mentions the quality philosophy TQM and adjusting the services to expectations and standards. The methods of evaluation and self-evaluation are being used. As the main problem she indicates the gap between agreeing with changes and actually making them in practice. Each change takes time, at least two years and should be constantly evaluated.

Being part of changes

Teachers from Celje say all employees take part in processes of changes (this information contradicts with their above-mentioned answer that they are not acquainted with development activities).

They face financial, organisational, technical problems and lack of space. Also, students do not take part in making changes. The principal notes that approximately one third of teachers and some key regional institutions take part in changes.

According to his opinion main problems when making changes are more related to procedures than regulations.

In Novo mesto various subjects take part in making changes: teachers, parents, students, management and social partners. Teachers have a positive attitude to changes. They are also the main force of changes, they coordinate projects. However, also this school faces problems with lack of space and equipment. Sometimes there are disagreements with school's management. Teachers suggest that more students should take part in making changes to improve communication and make some changes in the educational system. On the other hand, the principal mentions the lack of knowledge and lack of training and motivation of certain individuals. Sometimes new teaching methods are not appropriately interpreted as they are seen as taking all responsibility for learning from a teacher and putting it on a student.

Continuity in making changes

Employees in Celje think that continuity in making changes is necessary since times are changing and we should also be changing with them.

Also employees in Novo mesto agree changes are necessary since they are motivated by changes in society, economy and pedagogy.

Despite that the principal warns against making changes too rapidly since in this way a novelty does not become firmly established, results are not evaluated yet and no new experience can be drawn from such changes.

The importance of developing and assuring quality

Employees in Celje consider developing and assuring quality very important. They link quality with making the school more respected in community and, thus, increasing students´ employement opportunities. The principal thinks quality is emphasised on the national level, but not on a level of their school.

(When asked to grade from 1-5 how much the teachers are acquainted with changes, he gives grade 3 which indicated less confidence of a principal in the teachers.)

Employees in Novo mesto say the system of quality encourages them to work better and ensures the satisfaction of students, parents, companies and community. The principal thinks the state does not emphasise quality enough so there is a lot of room for permanent improvement.

Status of quality development

The answers of teachers from Celje are insecure. They indicate students´ study results and discipline (focusing on students´ obligations). Some mention linking teacher´s teaching preparations with teaching process. They see quality as a result not a process. However they already see segments on which the systems of quality should act on: increasing the quality of lessons, reducing the number of students not attending the lessons, new didactic aids, helping to learn, school climate and school management. The principal mentions two positive model examples (project and research work) and expects more motivated employees. He thinks the system of quality is well-intended but not well conducted without pre-set criteria. According to his opinion the main criterion of success is good study results.

In Novo mesto employees emphasise the quality of teamwork and self-evaluation. They are aware of quality at every step of educational process. Examples of improving quality are inter-subject cooperation, improving material conditions and more teacher training.

They have a positive attitude to their school and work, their main aims are improving lesson quality, parents-school and companies-school cooparation as well as increasing students´ motivation. The principal also adds external evaluation and standardisation of certain (mainly routine) procedures. Furthermore, as one of the activities of improving quality she sees ensuring students´ and employees´ well-being and safety at school. To improve quality they have already established quality teams of teachers working on particular areas. Unfortunately, not all teachers have yet adopted the philosophy of quality.

Problems

At School Center Celje teachers enumerate the following problems: lack of equipment, teachers being overburdened and not being independent enough when dealing with external partners. They are not familiar with processes that take place at school, the management does not take their suggestions into account. The principal, on the other hand, as the main problems indicates lack of students´ motivation for learning and lack of teachers´ professional training. He thinks the management and cooperation with other institutions is good.

At School Centre Novo mesto the employees also face lack of equipment, limited teacher´s autonomy and lack of students´ motivation. Teachers of professional subjects feel they lack

pedagogical knowledge and skills. They do not consider management problematic, sometimes it is too centralistic. They miss control over implementation of their agreements. They feel external partners do not consider school as a long-term partner since they are only interested in reaching their short-term goals.

The principal thinks that certain teachers still have not adopted the philosophy of improving the quality of their own work. She also stresses that teachers are not educated and trained enough to teach in accordance with new pedagogical approaches.

Results and experience with the quality assesment project

The principal in Celje feels there is a need for setting up a global system of quality which has not yet been done. Main achievements are increased standard at school, better communication with students and cooperation with community. Study results are the consequence of intensive work.

In Novo mesto teachers indicate new education programmes that better answer the needs of economy, new classrooms and equipment, more teachers attended the seminars. Unfortunately, not enough teachers and students are actively involved in changes, some do not follow and participate in making changes.

Recommendations for the future

In Celje the employees want additional seminars and training and better relationships, fewer students in classrooms and better cooperation with industry. According to the principal, the main areas of improvement are learning, teachers´ training, management, better relationships among the employees and with external partners but he has not concrete suggestions.

In Novo mesto employees indicate additional seminars for teachers and the use of modern pedagogical methods. Their goal is to improve the motivation of students, ensure better conditions for teamwork and contribute to changing the attitude of politics to pedagogical work. In terms of relationships they miss more respect in teacher-students relationships. They also expect more cooperation with companies.

Positive model examples

There are no positive model examples in Celje. In Novo mesto they have circulated various questionnaires and had discussions with parents and students to define problems. They have made classrooms and other rooms look nicer, improved

the communication with parents and students, set up quality teams, organised more sport activities and other informal meetings within and ouside school. The school climate and students´ study results have improved, teachers communicate more with each other. The principal thinks that the process of improving quality has raised some problems which have been systematically solved first by looking for their reasons. The results are better cooperation, better communication and everybody feels better at schools. One of the goals is also improvement of study results.

Parameters affecting quality

In Celje employees emphasise school-parents cooperation, teachers´ permanent education and training, teamwork, being ready for changes, motivating and rewarding successful teachers and making standard procedures uniform. The principal also feels the need for setting criteria, being systematic, motivated and more communicative.

In Novo mesto quality is mainly affected by being ready for changes, communication and teamwork, positive attitude of school´s management, good material conditions and high quality teacher education and training. In addition, the principal also stresses the importance of school climate and cooperation.

7.3 Discussion and Conclusions

In Slovenia some research (for example Pe ek, Lesar,2005) have pointed out some characteristics of Slovene teachers: they blame others (people and circumstances) for bad results, very few look for reasons also in themselves. They blame families, society, and the school system but are not aware how much they can change themselves – each individual teacher who spends a lot of time with her/his students as well as school as an institution that makes teacher's efforts worthwhile or not.

Thus one of the most important and interesting finding of this analysis is the fact that at schools where increase of quality has been dealt with systematically for a period of time there has been a shift from the above-mentioned philosophy.

Teachers have realised they themselves can make changes which lead to different, better results. On the other hand, the teachers at the school that is only beginning to deal with quality concept are often sceptical about the concept, colleagues and students. There is less confidence in your and colleagues´ abilities. If a conscious and systematic approach to quality increase at one school initiated the shift in teachers´ mentality, it can be considered as a key positive change. To make other meaningful changes teachers have to realise one of the basic pedagogical rule: in many ways school is determined by external factors (political, economic, social, etc) but despite this school is not powerless. It can be the force of changes which can be proved by many examples from history of education. It is the schools´ task to develop and emphasise its role and strength.

One of the main problems of quality projects in Slovenia is that they finish in a phase of research of current status and suggestions for improvements. No system for ongoing reaching quality has so far been established. Thus it is important to form quality groups that are active even after a project is finished. In this way reaching quality becomes an ongoing systematic process.

Gathered data direct us to some further conclusions.

Basic elements needed for reaching quality:

- Improving relationships, mutual trust and respect (between teachers, between teachers and principals, between teachers and students). Students should feel safe, also safe to explore.

- Improving respect for the professions.

- Improving quality of educational process, also putting stress on professional and personal growth of students.

- Teaching process should be student-oriented, supported by adequate equipment.

- Cooperation with local community and parents should be enhanced.

Ways of reaching quality:

- Setting a definition of quality and agree on a common vision;

- Setting up permanent quality teams – to make sure reaching quality becomes an ongoing process;

- Building a sense of belonging;

- Inter-subject cooperation and cross-curriculum themes and activities;

- Joint agreements and contracts.

Main problems hindering quality development:

- Deeply-rooted habits and feelings of having too much work (not always justified).

- Lack of motivation.

- Outdated teaching technology.

- Large classes.

Strengths of the actual situation

The concept of quality development is not new to schools offering education programmes for metal professions. Some have been taking part in the quality project for some years now. Permanent quality groups have been set up, they run workshop and seminars and try to involve as many teachers as possible. They are aware of the main goals they want to achieve and how to approach problems they want to solve.

Weaknesses of the actual situation

What still lacks is a systemic approach which would define the responsibility of stakeholders and education providers at the national level in quality assurance. It would also be necessary to clearly define the criteria and indicators for monitoring at the national level, with special emphasis on output standards which are valid both for the knowledge providers and individuals.

Also, grades cannot be an absolute criterion, since they do not show the actual progress of students, especially their professional, personal and social development.

Certain procedures for reaching quality can be standardized and included in legislation.

At the moment, we still do not have the plan for the national quality indicators in VET regarding employability and responsiveness for matching supply and demand at the labour market. The new VET Act gives the basis for implementing as a systematic approach.

Opportunities for the future

Occupational profiles for the metal sector have been developed, new competence-based and modularly structured programmes have been pre-pared and a new VET Act has been adopted. This means that a structural basis for a holistic approach to quality assurance in this sector is being built.

Risks for the future

A holistic approach can really be developed only if some further steps are going to be made. We estimate that efforts are to be put mostly into enhancing further teacher training and building closer links between schools and companies.

Bibliography

Bela knjiga o vzgoji in izobraževanju v Republiki Sloveniji / White Book on Education in the Republic of Slovenia, Ministry of Education and Sport, Ljubljana 1995.

Council Resolution on the promotion of the Enhanced European Cooperation in Vocational education and Training, Official Journal of the Europaen Communities.

European Comission, DG for Education and Culture , First report of the Technical Working Group "Quality in VET".January 2003 – September 2003, Brussels.

Izhodišča za pripravo izobraževalnih programov nižjega in srednjega poklicnega ter srednjega strokovnega izobraževanja, / Starting Points for the Preparation of Educational Programmes in Lower and Secondary Vocational and Secondary Technical Education, 2001, Centre of the RS for VET, Ljubljana, 2001.

Modro oko: Ugotavljanje in zagotavljanje kakovosti v vzgoji in izobraževanju / Wise eye: Quality assessment and assurance in education in 2001/ 2002, Ministry for Education, Science and Sport, Ljubljana, 2001.

POKI- Offering Quality Education to Adults (OQEA), Slovenian Institute for Adult Education, Ljubljana, 2004.

Poročilo o poteku poskusnega izvajanja izobraževalnega programa "avtoserviser", Center RS za poklicno izobraževanje, Oktober 2005. / Report on the Pilot Implementation of the Educational Programme "Car Mechatronic", Centre of the RS for VET, October 2005.

Portal Centra RS za poklicno izobraževanje, http://www.cpi.si

Portal Gospodarske zbornice Slovenije, http://www.gzs.si

Razvojni program za podporo implementaciji izhodišč za pripravo izobraževalnih programov 2002/03 / Development Programme for Supporting the Implementation of Starting Point for Preparation of Educational Programmes 2002/03, Ministry of Education, Science and Sport

Strategija razvoja slovenske kovinskopredelovalne industrije, Center za mednarodno konkurenčnost; Ljubljana 2003

The Phare – Mocca Programme, Concept of Quality assessment and Quality Assurance in Vocational Education and Training, Ministry for Education, Science and Sports, Ljubljana, Oktober 2000.

The Phare Vocational Education and Training Reform Programme 1994, Assesment of the Phare Vocational Education and Training Programme, Center RS za poklicno izobraževanje, Ljubljana 1998

Tkalec, V., Pevec Grm, S.. 2006. Quality Assurance with regard to Technical and Vocational Education and Training (TVET) in Slovenia. Unesco (fotcomming).

Ways towards Quality in Education, International Conference Proceedings, 8.-10. April 2000, National Leadership School, Open Society Institute.

Zakon o gimnazijah, Ur.l.RS št. 12/96, 59/01 / Gymnasium Act, Official Gazette of the RS, No. 12/96, 59/01.

Zakon o izobraževanju odraslih, Ur.l. RS 12/96, 56/94 / Adult Education Act, Official Gazette of the RS 12/96, 56/94.

Zakon o maturi, Ur.l., št. 15/03. / Matura Act, Official Gazette of the RS, 12/96, 15/ 03.

Zakon o nacionalnih poklicnih kvalifikacijah / National Occupational Qualification Act, 2000, Ur.l. RS, št.81/00, 55/03.

Zakon o organizaciji in financiranju vzgoje in izobraževanja, Ur. L. RS,12/96, 115/ 03 / Organization and Financing of Education Act, Official Gazette of the RS, 12/96, 115/ 03.

Zakon o poklicnem in strokovnem izobraževanju, Ur.l. št. 12/96, 86/04 / VET Act, 12/96, Official Gazette of the RS, No. 12/96, 86/04., 2006.

8 Country Report Spain

Joaquín GAIRÍN, Miquel Àngel ESSOMBA, Daniel MUNTANÉ, Agustí ISARCH, Eduard BATISTA

Department of Applied Pedagogy, University Autonomous of Barcelona, Campus de Bellaterra, E-08193 Cerdanyola del Vallès (Spain)

The implementation of Quality Systems at VET institutions in Spain is very recent. Initially, most of the initiatives tried to adapt ISO 9000 norm to these organisations, but things are changing and the Administration is working on new versions of EFQM or original systems created for specific contexts. Whichever the system is, a lack of a high quality teacher training, the absence of the newest technologies in the classrooms or the weak communication with companies emerge as the most remarkable challenges to be overcome by Spanish VET System in general, and specifically in the Metal sector.

8.1 Status, Activities and Current Discussion

Status

Vocational training is education that links most closely with the world of work and production, and therefore with its employment and technological aspects (Tedesco, 1995). It is therefore a kind of training that plays a fundamental role in as far as it makes it allows competitiveness and productivity to be improved and also makes possible the construction of fairer societies, improving quality of life in that work is one of the cores around which social, economic and personal life is structure.

Vocational training, within permanent education, is not seen as training oriented towards the acquisition of highly specialised techniques. The competences and skills demanded by the world of work are increasingly general ones which, beyond the solution of specific problems, allow people to acquire an attitude and capacity to adapt to change both in terms of employment (complex organisation of work, problem solving capability, flexible working systems, teamwork...) and of a social nature (cultural, social and economic).

The employment dimension itself is not only focused on carrying on a specific, specialised task. Tedesco (1995) indicates precisely the growing participation of employment agents (business people and workers) in public vocational training policies and in the lives of its organisations.

Ultimately, the discourse of permanent education exists in a context where the requirement for new skills, the situation of a certain general employment crisis and the effects of globalisation lead to the expansion of learning aspirations in order to face up to this new scenario. Put another way, it is a response to the general process of change recognised as the information or knowledge society in order to ensure the governability of society based on the acquisition of attitudes, behaviours, skills and values needed to achieve better patterns for living together.

So, education and training become an investment directed towards revaluing human resources, making it possible to increase global competitiveness, develop employment and preserve social conquests (Requejo, 2003).

In fact, as Masjuan (2002) explains, the recovery of itineraries in basic education can lead to the exclusion of part of the population from the formal education system which moves towards a range of education focused of specific and not general skills and, in a way, generating an imbalance between the "educational system moving towards post-Taylorist systems" and an education system "exclusively concerned with immediate preparation".

Along these lines, Regulated Vocational Training in Spain shows some fragmentation in the structure of the curriculum, which could cause the opposite effect to providing general education that would lay the basis for subsequent expansion of knowledge, skills and capabilities throughout a person's working life.

Vocational training must therefore be tackled as the most immediate challenge, with the adoption of an integrating approach including quality, belonging and fairness, in the different dimensions (employment, technological, social and economic). In this way, quality vocational training must be relevant in two sense: it must be capable of attending to the needs, demands, problems and

transformations of its environment and attending to the characteristics, needs and expectations of the subjects being attended to; and it must also include fairness by promoting and ensuring equality of opportunity, making it possible to reduce deficits of fairness and consequently increasing the level of competitiveness (Tedesco, 1995).

So, Vocational Training should, in terms of quality, be approached as training that ensures skills and basic technical knowledge relating to a professional family in general and a profession in particular and which lays the basis in terms of attitude, behaviour and values to provide a response to these new, more general needs deriving from changes in the employment, social, economic and cultural world.

Despite this, other considerations must be borne in mind. Until a few years ago, speaking of quality in Vocational Training did not make sense, in that this concept was associated with academic results and the students with the best results were not directed towards this educational option. In fact, even now vocational training in the Spanish and Catalan context, is considered as "second division" (below university) education for pupils of whom it was traditionally said that they "weren't made for studying" [1].

This fact leads to another difficulty noted by Bonifacio Jiménez (2002), as a result of the psychological principle of association: the fact that until now quality has not been spoken of in vocational training does not mean it does not exist here; nor does the fact that this idea is appearing now in this context imply that quality is all-important or covers all spheres.

In addition, the first contacts of vocational training with quality were based on relationships with businesses and it was the teachers who, based on contact with managers at businesses where the students went on work placements, began to become familiar with the language of ISO standards (Prujà, 2002). However, the requirements established for regulated education (duration of the education, curriculum structure, teaching staff to give the classes, installations and equipment necessary) affect formal aspects, with education falling into excessive bureaucratisation, leading to a low level of inclusion of professionals from businesses in training programmes.

For the last few years there have been different general models for TQM such as Malcolm Baldridge certification – reference model in the United States – based on the quality ideas of different authors, such as Deming and his PDCA (Plan, Do, Check, Act) circle. On the other hand, at European level, there is also the model drawn up by the European Foundation for Quality Management (EFQM) called European Quality Certification, but known by the initials of the EFQM model of excellence. This is one of the models we will focus our attention on.

The other quality model we will focus our attention on will be the ISO 9000 standard – the common name used for a group of international standards for guaranteeing quality in organisations. This definition leads us to wonder what kind of relationship there is between the ISO and TQM. If we observe the principles of the ISO 9000 and 9004 standards, we will see issues such as: clear customer orientation, the importance of leadership, the participation of all staff, continuous improvement as a permanent objective, decision-making based on facts and a process-based approach; all of them fit in with the approaches and principles of TQM.

The EFQM adapted to education

This is one of the models which is backed from a general educational point of view by the Ministry of Education and Science as a measure for improving quality at centres. This model, which also originated in the business world, starts from the premise that management, orientation towards policies and strategies, the management of people, resources and processes obtain the satisfaction of customers and people, as well as affecting society and optimising commercial results.

In summary, we can talk about EFQM as a self-assessment model [2] which, like the Malcolm Baldridge one, makes it possible for organisations to discover the position they are in on the way towards excellence in quality.

ISO 9000, the preferred quality model for vocational training in the Spanish State

Despite the existence of this more qualitative EFQM model which is particularly promoted by the Ministry of Education and Science at State level, and also at regional level by the majority of autonomous communities as a preferred model for improving quality in the education system as a whole, the field of vocational training largely opts for the principles of quality assurance, and particularly ISO 9000.

We are starting from the basis that the Total Quality Management models are based on certification, with this understood as "getting an independent body to ensure that the quality system established by the business meets the requirements of the chosen model and that this model is coherent with the policy and objectives defined by the management" [3]. The question is, why does vocational training choose ISO 9000 and not another quality model? The answer is a dual one:

firstly, because of the historical development of the ISO 9000 standard, it has become the quality assurance standard for any kind of organisation, and especially in the production sector, while it also has international recognition.

This means ISO 9000 has become a common language at two levels: among organisations in different sectors and different countries. Therefore, the adoption of ISO 9000 standards by Vocational Training, which we recall is directly related to the world of work, makes it possible to connect with businesses using the same quality language and obtaining quality that is internationally recognised and which, in the context of globalisation, means being more competitive at local and international level.

Secondly, the level of knowledge, advice and training for ISO 9000 is easier to achieve than for other quality models.

Ultimately, from the perspective of Vocational Training, the implementation and certification of ISO 9000 standards is raised, as Van der Berghe says, for the following reasons, ordered from greater to lesser importance for centres:

▪ The promotion of an image of quality – very important, as this image has an influence on the number of students and therefore on the survival of the organisation. ISO 9000 thereby becomes a way of putting across to society the organisation's commitment to quality and the fact that this has also been supervised by an external, independent agent. Taking into account the fact that vocational training tends to be looked down on in the Spanish State, this can be seen as the beginning of a revaluation of this range of education.

▪ Providing a response to external factors, as society is increasingly concerned over quality issues and demands the verification of the promised quality, and this is translated into the fact that this concern exists in Administrations that promote vocational training processes with ISO 9000 certification at their centres and into pressure due to the certification of other centres (competitiveness), among other things.

▪ Creating a quality assurance system including all areas of the organisation, making visible and comprehensible all efforts to improve the internal quality of the centre and giving confidence and satisfaction with current performance. In the same way, it will be a system that makes it possible to develop procedures oriented towards ensuring effective, efficient and consistent internal organisation and towards preventing problems and future

deterioration.

"If we compare "general" education with vocational training, it is clear that those offering VT are the most suitable candidates for ISO 9000. In fact, VT institutions, whether they are public or private, need to be clearly customer oriented (the professions and sectors for which training is provided) and they are subject to external pressure concerning the relevance of their range." (Van der Berghe, 1998)

Despite these arguments justifying the use of ISO 9000 in the context of vocational training and leading us to favour it, there is also a set of disadvantages on the other side, which tend to make us doubt the application of this quality assurance system in the educational context of vocational training.

Activities

To carry out the research process we initially contacted the following social agents with the aim of establishing a co-operative relationship: 3 members of management teams (1 per education centre), 5 experts, 2 business people.

After this first contact, the following interviews were carried out:

▪ Vocational Training Centres (3 members of management teams, 6 teachers, 3 groups of 6-8 students)
▪ Businesses (2 heads of training departments)
▪ Experts (2 university lecturers, 1 member of the CCOO trade union, 1 member of the Barcelona Vocational Training Council (Barcelona City Council), Deputy Director General of the Department for the Organisation and Planning of Vocational Training (Government of Catalonia)

All interviews and discussion groups were recorded, with transcriptions made.

On the other hand we collected documents at different levels:

▪ Case study: Vocational Training Centres
▪ Local level: Barcelona City Council
▪ Autonomous community level: Government of Catalonia
▪ State level: Government of the Spanish State

In addition, general bibliography related to vocational training and quality was collected and consulted.

Once data was collected we proceeded to data

analysis.

The analysis of the interviews was descriptive and referred to the following 6 dimensions:

1. Teaching-learning process and results
2. Professionalism of teaching staff
3. Leadership and management of the centre
4. Class/centre climate and culture
5. External relations
6. Follow-up with former pupils

The process followed for the analysis was as follows:

▪ Individual analysis of each interview, based on the selection of the contributions referring to quality in each dimension and drawing up a descriptive statement (item) referring to each contribution.

▪ Joint analysis by groups seeking common points in the interviews among people from the same group (experts, business people, teachers, management team, students). The criteria for making this analysis were as follows:

1. Bringing together clearly common items
2. Maximum of 3 quotes for each item, taking into account two aspects:
   - Diversity: that is, that they should be quotes from different people.
   - Clarity: that is, the quotes that most clearly reflect the sense of the item.
3. Ordering the items according to their significance.

A descriptive approach was also used to make the analysis of the documents.

The basic criterion for selecting information was the existence of a clear, specific reference to quality issues.

Taking this into account, from the documents analysed, we found information relating to quality at different levels.

Current Discussion

We will first talk more extensively about ISO 9000, as it is the by far the most common model for vocational training, without forgetting, however, to briefly note the problems and disadvantages of the EFQM model.

One of the main problems going against ISO 9000 in the educational context is the problem of interpreting the standard. The application of the standards is not direct and requires an effort of "translation" and "interpretation" in order to adapt the language used to the educational situation. In fact, ISO 9000 standards have many sections requiring subjective assessment, and there are no valid general directives, as the needs depend on the complexity of the organisation, customer demand and the educational level of staff. Here are three problems in the form of an example of this interpretation issue:

▪ **The terminology used.** Concepts such as customer, supplier, product and service are not applicable to vocational training or in the educational sector without prior discussion about what each of those concepts refers to. This lack of unanimity makes the application process difficult, without forgetting the fact that the use of business nomenclature is not always well received in an education centre, even in the context of vocational training.

In fact, the choice of one interpretation or another of these concepts has many implications in the subsequent interpretation of the clauses of the ISO 9000 standard. In this sense, for example, the term "product" can be interpreted either as learning or as the educational or training programme being taught. Depending on how this is interpreted, the checking and inspection requirements will also have very different interpretations as, in the first case (product as learning) these requirements will be focused on the assessment and examination of students, while, in the second case (product as educational or training programme), these same requirements will be focused on the assessment by students of the training course or programme.

In order to solve the problem of terminology, glossaries have been established and applied to the educational context.

▪ **The most effective assessment for meeting the requirements at minimum cost.** Very often it is not easy to know or decide whether ISO 9000 requirements are being met. Deciding whether these requirements are being met will often depend on the thinking of the institution or the person from the certifying body.

▪ **The degree and rigour with which the requirements have been met.** The level of detail needed in the documents drawn up is not clear, which affects all document monitoring; the nature and quantity of quality registers, which can lead to bureaucratic and excessively documented systems; the specific nature of the objectives and quality policy; the scientific validity of the assessment and examination methods used, or the frequency of internal audits and reviews by the management.

Another disadvantage noted by Van der Berghe (1998), is the fact that ISO 9000 standardises assessment and monitoring processes and systems that are inappropriate for an education centre. The operations that occur in an educational institution show a lower level of standardisation, in that the quality of teaching and learning largely depends on the interest, commitment and initial qualifications of students. The complexity and multiplicity of objectives education has to respond to does not match the standardisation resulting from the application of ISO 9000. This leads to difficulty when it comes to finding the happy medium of, on one hand, demonstrating conformity with the ISO 9000 standard and, on the other hand, allowing a certain level of variability corresponding to these factors that are difficult to control and standardise. It is clear that ISO 9000 is not sufficiently relevant to the education system in that it does not explicitly include aspects essential in educational institutions at internal level, like the teaching-learning process, the role, training and attitude of the teaching staff in this process or the culture and climate of the centre itself and of the classroom, attention to diversity or issues at an external level like the degree of employment inclusion of students, the need for a subsequent training itinerary or networking with institutions, businesses and other centres; all them also important concerning TQM.

As a conclusion, we can say that the ISO 9000 method cannot be classified as inadequate for educational institutions, but it is true that its systematic nature, oriented towards tangible, measurable issues, provides a difficult balance with the need to use creativity and imagination in aspects where the standards do not reach. Ultimately, it raises a series of important limitations concerning the education sector, which could be resolved by a more qualitative Total Quality Management system.

On the other hand, it must be noted that the more qualitative EFQM model is not free of difficulties and disadvantages. In this sense, a first problem the model can raise for us is the weighting of the different elements. This standardised weighting does not include the context of the centre where the model is applied. So, for example, in the Spanish context where management is voluntary and increasingly has a "forced/compulsory" nature, lacking professionalism and with little recognition, it will be difficult to talk about quality when elements like leadership, resource management, planning and strategies involve a management team which is increasingly demotivated for the task. In another direction, the EFQM model also raises the difficulty of being left with an initial interpretation of the situation (based on this self-assessment) without then having the tools and procedures for quality improvement and/or assurance, leaving this path to excellence half completed and to an extent needing to be complemented by more quantitative models establishing some processes and procedures for eventually obtaining and ensuring a high level of quality in a more systematic and standardised way.

8.2 Case Study

Description of the Case Studies

Quality situation in three particular centres (Jaume Mimó Secondary School, Santa Eulàlia Secondary School, Escola Industrial Secondary School)

Concerning the study at micro level, which we have carried out at the 3 secondary schools where we have held most of the interviews, it should be highlighted that not all of them have a quality management system. In the case of the Jaume Mimó Secondary School, we can state that there is no system and that quality is managed informally.

The Escola Industrial Secondary School de Sabadell has quite an elaborate quality management system. Documentation is divided into three different manuals: a quality management manual, a procedures manual and a quality indicators manual.

The quality management manual presents the whole quality system. The purpose of this manual is to describe the establishment of a Quality Management System in line with the requirements of the UNE-IN-ISO 9001:2000 Standard "Quality Management Systems – Requirements".

The centre's quality management system defines the main processes involved in the centre's different activities. Each of these processes has a series of procedures for specifying work more clearly and easily. In the same way, each procedure is assigned a quality indicator allowing us to see the progress of the procedure. Equally, each procedure has someone who is responsible for it and who takes care that the purpose of the specific procedure is achieved. We will now show the system's main processes to give an idea of the elements prioritised by the centre when it comes to quality:

- Strategic Processes: these are the ones that fix the objectives, provide patterns and guidelines for the other processes, draw up the organisation's mission and keep it up to date.
    - Planning and organising the centre
    - Drawing up and reviewing the Centre's Curriculum Project
    - Developing and reviewing the quality management system (QMS)
    - Managing communication, promotion and relations

- Key processes: these are the ones in direct contact with students.
    - Managing student information and admission
    - Developing teaching/learning in VT
    - Managing the satisfaction of students and their families

- Key chain support processes: these are the ones that directly support key processes and facilitate their development.
    - Carrying out academic management
    - Collaborating with businesses and facilitating the transition to work
    - Managing the library
    - Managing complementary activities

- Support processes: these are the ones that provide the resources necessary so that the other processes can achieve their mission.
    - Managing and training the school's human team
    - Managing financial resources
    - Managing the centre's computer system
    - Managing material resources and purchasing
    - Monitoring and measuring the quality management system

Concerning the centre's quality system, which we can find in the centre's educational plan, this is spelled out in three objectives, which are as follows:

1. Meeting pupils' expectations and needs, offering them quality education.
2. Meeting the expectations and needs of internal and external customers, providing an education service in accordance with the Centre's Mission and educational plan.
3. Creating and maintaining quality in education.

State of the issue in a municipality. The case of Barcelona.

In order to assess the state of the quality issue in Vocational Training Centres in the city of Barcelona, we have focused on a study carried out by the Barcelona Vocational Training Council in 2005. The study is fundamentally based on the quality of the work placements that vocational training students do with companies, and is basically focused on three areas: organisation, monitoring and assessment. However, it must be mentioned that this study is based on vocational training generally, not especially on the car industry and metalworking branch.

The study explains the current position in various aspects of quality concerning students' work placements with companies. These aspects basically refer to aspects including the work placement and company tutors, to the planning of training at the companies and to the training of the teachers who serve as work placement tutors. We will now discuss the current position of these aspects.

Concerning tutors on the educational cycles and at the companies, it must be highlighted that there is no official document and no rules regulating or establishing any kind of criteria to assess how appropriate it is that any tutor should continue. In addition, the company tutor often does not have a clear knowledge of vocational training, the characteristics of the students or the competences they have to achieve at the company. Concerning the work placement tutors in the educational cycles, the majority have had no work experience at a company outside the educational sphere or have had such experiences a long time ago and do not have a realistic view of technologies or of the modern business world. There is also a lack of co-ordination between the educational cycle tutor and the company tutors in the student monitoring process.

Concerning the companies, these often have little involvement when it comes to giving the pupil the activities to be carried out on the placement and this means the pupil is not involved in a process with real results and applications. It should also be highlighted that the synthesis credit pupils do in the Higher Level Educational Cycle also fails to correspond to the real situation. Generally, there is a lack of an agreed process between the management, the vocational training co-ordinators and the training tutors at the companies involved in the different education cycles for the planning of the work placements.

Concerning pupils joining particular companies, we would highlight that this normally depends on the personal characteristics of each training tutor at the companies, availability, voluntary effort and personal knowledge of companies in the sector or information passed on by those previously in

charge. Ultimately, there is no working procedure to ensure effectiveness in deciding the most appropriate companies.

Concerning the monitoring of pupils on work placements, there is no methodological process serving as a guideline and establishing minimum standards to ensure the proper monitoring of training in companies. Similarly, there is no regulation requiring that there should be face-to-face interviews between the company tutors and those at the education centres. Nor is it considered that the tasks the student carries out at the company should be related to the educational cycles. In addition, there is no space in the timetables of the vocational training centre for the tutor to hold personal interviews with students.

The relationship established between the companies and the centres is basically because of the work placement and it is difficult to find centres that have overall co-operation programmes with companies.

There is another type of data we are also interested in and this comes from the assessment businesses make of training at work centres. This assessment was also published in a report from the Barcelona Vocational Training Council. This study was made on a sample of 330 businesses from different branches. However, of these 330 businesses, only 6 belonged to the mechanical manufacture professional family.

One of the most interesting pieces of information in this assessment is provided by the responses of the businesses on their reason for taking a student on a work placement. The three main reasons for taking students on work placements are: co-operation with the centre (29.7%), having the prospect of filling a job (16.1%) and the combination of these two reasons (12.1%).

Another important piece of data is the assessment of the information on the management of work placements and on the students at the beginning of the relationship. In general, this is rated positively, as 59.1% answer that there has been quite a lot of information and 23% that there has been a lot. However, 16.1% answer that there has not been very much information. In general, we can say that companies state they are well informed at the beginning of the work placement process.

Finally, as an important piece of data, we have what the companies value most highly in students. What companies value most highly about students is their attitude (79.4%) and the combination of this with knowledge (17.3%). Only a small proportion – 3% - value only knowledge.

State of the issue in a Regional level. The case of Catalonia

In recent years the Government of Catalonia has been very much aware of the importance of quality management systems in organisations, with particular attention to education centres. In relation to this, the Catalan government has drawn up a series of documents explaining the actions and some projects being carried out in order to increase and improve quality in our education centres.

The Directorate General of VT and Permanent Education of the Department of Education, and the Quality and Continuous Improvement Project (QIMC), which we will see later in the documentary analysis, are particularly important. We will now summarise the content of the most important documents on this subject, explaining the general ideas and general lines of each document.

A) The European dimension in vocational training

The Department of Education provides a general view of the current position of Vocational Training at European level and links it directly with the situation in Catalonia. According to the department, in Catalonia, participation in joint projects with other Union countries means a very valuable contribution to developing innovative techniques to improve quality in Vocational Training. In addition, the European sphere is the ideal area for observing other ways of doing things, comparing approaches, exchanging views, experimenting with specific actions and introducing new methods and practices. Following this line, the Department of Education wants to promote European exchange projects in the field of VT, particularly Initial Vocational Training (IVT). To do this, it is carrying out a series of actions in two directions:

- Mobility Projects.
- Projects falling within Community initiatives and programmes for innovation and improvement of the quality of the system.

In addition, the Directorate General of VT and Permanent Education of the Department of Education is taking part in the system of trans-national and inter-regional networks for co-operation in VT. The most important networks are the following: EARLALL, Four motors for Europe, The Pyrenean Working Community (CTP) and is also co-operating in various bilateral agreements, the most important of which are: Welsh National Assembly, the Academy of Montpellier, the Midi-Pyrénées Regional Council, the Scottish Executive and Alghero.

Another important aspect involved in this document is the emphasis placed on the added value mobility can bring to quality in VT. It begins with conviction of the value of complementary action to strengthen and improve our vocational training, which involves the training in another country of students, teachers, centres and the Vocational Training system.

Finally, we would mention as a last point to be emphasised in this first document the active participation of the Department of Education which, through the Directorate General of VT and Permanent Education, is taking part in different Community programmes and initiatives making it possible to construct new tools to use in VT in common with other countries. There are two important initiatives:

- Community initiative INTERREG III: this belongs to the ERDF (European Regional Development Fund) which promotes co-operation between regions of the EU. Specifically, Catalonia is taking part in actions IIIA and IIIC. IIIA's objective is to encourage integrated regional development between the border regions of France and Catalonia. The aim of IIIC is to improve regional development and cohesion policies and techniques through trans-national and inter-regional co-operation. The south of Spain, Portugal, southern France, southern Greece, western Italy and Cyprus are taking part.
- EQUAL community initiative: this belongs to the ESF (European Social Fund) and its objective is to promote new practices for fighting all kinds of discrimination and inequality on the job market in a context of national and trans-national co-operation, and to facilitate inclusion in social and employment terms.

B) Management by processes in education centres is based on the ISO 9001:2000 Standard.

This second document has been drawn up jointly by the Department of Education and the Department of Employment and Industry. This document comes within a general project called the Quality and Continuous Improvement (QiMC) Project, promoted by the Directorate General of VT and Permanent Education. This manual, which we are going to analyse, is a result of QiMC. Its objective is to implement a new management model seeking continuous improvement in the quality of education; the satisfaction of the educational needs of students, their families and the social and economic environment; participation and involvement from the human team of the centre, and improved results. This guide puts forward a model that helps to develop and implement a new system of management by processes, and it is structured in 4 sections.

In the first section, an account is given of the background to drawing up this guide. Reference is largely made to the QiMC as a fundamental element. The purpose of the QiMC is reflected through four general objectives:

1. To improve the capacity of education centres to provide a response to the educational needs of students, families, businesses and society.
2. To promote orderly and systematic continuous improvement.
3. To improve the satisfaction of the centre's human team.
4. To improve the centre's key results.

The plan has taken shape and been developed over the years, and four basic phases have been established:

1st phase: raising of awareness and involvement of the institutions' management teams.
2nd phase: development of quality and continuous improvement.
3rd phase: identification and management of processes at the centre.
4th phase: definition and implementation of a quality management model.

Later, the document explains the critical points that can hamper the implementation of this management model. Difficulties can appear in concerning the organisational structure, documentation and the human team. Finally, we find that this first section concludes by discussing the initial conditions (ideal starting point) that a centre should show in order for management models concerning internal organisation and communication, the human team and documents to be implemented.

The second section of this manual refers to the application of the proposed management model. We will not detain ourselves here as we believe this is not relevant for what we propose to analyse. We will therefore focus on the third section, which tells us of the relationship between the model and the ISO and also of the application of the ISO standard at education centres. Throughout the chapter, various ISO requirements are presented, followed by a set of recommendations on what must be done to achieve them. The requirements are as follows: quality management system; responsibility of the management; resource management; achievement of the product; measurement, analysis and improvement. The chapter also explains the most common failures to conform and deviations present

in the internal and external audits carried out at the education centres involved in QiMC.

The fourth section of the guide gives a list of the education centres taking part in this project, explaining their experiences and opinions in relation to the matter. The centres taking part and involved are the following: Lacetània Secondary/Higher Vocational Training School(Manresa); Escola Bonanova Secondary School (Barcelona); La Garrotxa Secondary/Higher Vocational Training School (Olot); Quercus Secondary School (Sant Joan de Vilatorrada); Francesc Vidal i Barraquer Secondary/Higher Vocational Training School (Tarragona).

C) Quality and continuous improvement. Introduction of quality and improvement teams

This third and last document that we will analyse on quality in Catalonia has been drawn up by the Department of Education – specifically by the aforementioned Directorate General of VT and Permanent Education. As we can see, this body is involved in the three documents that form part of our analysis, which indicates to us the importance quality issues have in Catalonia, whether it is backing projects like the QiMC, projecting Catalonia at a European level or drawing up documents like the ones we are analysing.

The document is structured into an introduction, which will be the subject of our analysis, a second block dedicated to basic tools and a third block focused on the working methodology of improvement teams.

The manual's introduction gives us general information about quality and some important concepts related to it. The definition of quality is established as identifying and meeting customers' needs and expectations. But, if we go further, we can achieve total quality, that is, applying quality in all the centre's activities and at all levels of the organisation. However, in order to carry out these actions, we need a quality management system; that is, a set of actions which, through planning and implementing participative continuous improvement processes, seeks to respond to its users' needs, achieve the satisfaction of staff and achieve the objectives set. This will lead to the continuous improvement process, under which small improvements are introduced at the centre. This continuous improvement is implemented by quality improvement teams. These are groups made up of people from different units of the centre who meet to analyse, identify and solve problems and suggest improvements for the better operation of their daily activities.

As we can see, this is a document that does not fall within any specific project; it is a manual that serves as a guide and support for users and centres. It simply gives basic directives on quality and some tools and strategies to be implemented at education centres.

8.3 Discussion and Conclusions

Discussion

Teaching and learning

- The vocational training curriculum should be general in nature, focused on the attitudes of future technicians and leaving employment specialisation for workplace training.
- The curriculum must focus on the practical dimension of skills and content, applied to the area of professional practice. Consequently, the schools' relationships with the business world must be improved, linking theory to this professional practice and basing the deployment of the curriculum on the professionalisation needs of the job market.

- The approach of the curriculum must incorporate the active teaching approach: recognising the specific characteristics of students and manage their diversity, promoting the leading role of the student and taking care to increase and maintain motivation levels.
- Concerning the effect of curriculum development on improving quality, three ideas are highlighted:

    a. The ISO standard is not valid for quality management and improvement in curriculum development
    b. Quality improvements come through the improvement of material resources, above all machinery
    c. Tutoring plays a central role to achieve an increase in quality:
        - a tutor has to oversee the relationship between students and the business world
        - tutors must provide personal guidance

- tutors must carry out actions to co-ordinate the teachers.

Professionalism of teachers

The need to improve human resources management (teachers) is indicated concerning:

a. Selection processes
b. Reception procedures at the centre
c. Internal training processes at the centre
d. Stability of the teaching staff

Concerning the effect of teachers on improving quality, a set of contextual and personal conditioning factors among teachers should be highlighted:

a. Personal conditioning factors of the teaching staff: involvement, motivation, age, experience
b. Contextual conditioning factors: need for external dynamism, link with business, training, incentives

There is a notable gap between the theory provided by teachers at education centres and reality in the business world. Some possible solutions to this lie in the connection between the teaching staff and the business world: placements with commercial companies, trips abroad, bringing business people and workers into secondary schools.

Leadership and school management

Management teams must take on a set of essential functions for quality improvement:

a. Taking responsibility

b. Monitoring teachers
c. Leadership

Management teams must take on new aspects of the management function:

a. Professionalisation of the management function
b. Corporate leadership

To meet the challenges of a new direction, the current problems acting as conditioning factors must be tackled and neutralised:

a. Time management
b. Autonomy
c. Training

School/ class climate and culture

There is evidence of the lack of a quality culture in secondary schools. This lack of a quality culture is shown in factors such as:

a. Lack of an assessment culture
b. Lack of a culture of innovation and change
c. Lack of a culture of documentation

Faced with this lack of culture in these terms, a series of challenges emerges to be considered, such as:

a. The increase in dialogue within governing bodies
b. The improvement of the co-ordination and participation of the teaching staff
c. The personal assumption of the centre's educational plan

Conclusions

As a conclusion, we can say that we cannot close our eyes to the evidence that it is necessary to implement and develop quality in education in general and in vocational training in particular. Accepting this evidence is, however, only the first step on the road towards quality which is not free of uncertainties caused by the complexity of the concept itself, especially in the educational context, where there is not a single voice with respect to who has to be taught, which needs must be met and which groups must be attended to.

This complexity in the field of Vocational Training becomes more acute, firstly because it shares the lack of a tradition in teaching with the whole education and training world and, secondly, because it has historically been an educational sector that has been looked down on and therefore in no way associated with the concept of quality in general. On the other hand, though, their close links with the business world have given rise to better understanding and acceptance of the processes for implementing quality-oriented systems, so that Vocational Training centres have been, up to a point, pioneers in this process, adopting and adapting, above all, quality systems from the business world aimed at quality management, guaranteeing and assurance, with the advantages and disadvantages this involves in the context of education and training.

Table 9 *Spain: challenges in the presence and in the future*

	Challenges
Teaching and learning	▪ The vocational training curriculum should be general in nature ▪ The curriculum must focus on the practical dimension of skills and content ▪ The approach of the curriculum must incorporate the active teaching approach ▪ Improvement of material resources, above all machinery ▪ Tutors must provide personal guidance and carry out actions to co-ordinate the teachers
Professionalism of teachers	• Need to improve human resources management (teachers) concerning selection processes, reception procedures at the centre, internal training processes at the centre and stability of the teaching staff • Need of personal conditioning factors of the teaching staff: involvement, motivation, age, experience • Need of contextual conditioning factors: external dynamism, link with business, training, incentives ▪ Promotion of placements with commercial companies, trips abroad, bringing business people and workers into secondary schools
Leadership and school management	▪ Management teams must take on a set of essential functions for quality improvement ▪ Management teams must take on new aspects of the management function ▪ The current problems acting as conditioning factors must be tackled and neutralised (time management, autonomy, training)
School/class climate and culture	▪ The increase in dialogue within governing bodies ▪ The improvement of the co-ordination and participation of the teaching staff ▪ The personal assumption of the centre's educational plan

References

[1] This fact, however, following Tedesco (?), can be valued as a positive element for quality in that Vocational Training "continues to be the main educational option for the most vulnerable sectors in our societies and, therefore, one of the main ways in which they can access knowledge".

[2] From EFQM, self-assessment is considered as an overall, systematic, regular examination of the activities and results of an organisation compared with a model of excellence.

[3] According to the definition by AENOR, the Spanish Association of Standards and Certification.

Bibliography

Gairin, J. (2005): Formación Profesional y Ocupacional en el marco de la formación permanente. Una visión desde Europa.

Gairin, J. (2004): La Formación Ocupacional en Catalunya: valoraciones i propuestas, in the journal Herramientas, num 74

Jimenez, B. (2002): Buscando la calidad, in JIMÉNEZ, B and MEGÍAS, R. (Coord): Formación Profesional. Orientaciones y resources. CISSPRAXIS. Barcelona.

Prujà, R. (2002): La gestión de la calidad en los centros de formación profesional, in JIMÉNEZ, B and MEGÍAS, R. (Coord) : Formación Profesional. Orientaciones y resources. CISSPRAXIS. Barcelona.

Requejo, A. (2003): Educación permanente y educación de adultos. Ariel. Barcelona

Tedesco, JC. (1995): Los desafíos de la Educación, in: Boletín de Cinterfor, N° 131. Montevideo.

Van Der Berghe, W. (1998): Aplicación de las Normas ISO 9000 a la enseñanza y la formación. Interpretación y orientación desde una perspectiva europea. CEDEFOP. Salonika.

9 Country Report United Kingdom

Stephen JOHN and John PHELPS

Coleg MORGANNWG, Ynys Terrace, Pontypridd, United Kingdom

It is expected that that all colleges will aspire to excellence, rather than be satisfied with maintaining their current levels of performance or accepting mediocre provision as the norm. The intention is that the aspiration should be evident in a college's approach to self-assessment and subsequent action planning. The holistic process should be a part of each college's planning and business development procedures. All staff should be encouraged to participate in identifying priorities for improvement, monitoring provision and assessing outcomes.

9.1 Status, Activities and Current Discussion

Context: Status, Activities and Presence Discussion

Interviews and discussions were undertaken with a number of experts in vocational education and training in Wales including education managers and labour market representatives.

Bridgend College -	Head of School of Engineering
Coleg Morgannwg -	Quality Audit team representatives
Coleg Morgannwg -	Focus group of Engineering lecturers
ELWa/Fforwm -	Development Officer
Merthyr College	Quality Manager
Yale College	Head of School of Engineering

Status of Quality Management

Quality monitoring in the UK public sector emanates from the Financial Management Initiative[1] launched in 1982, and published in 1986 that concentrated on the development of management systems and on their suitability for helping managers to secure better value for money from the resources allocated to them. Also in 1982, the Local Government Finance Act[2] came into being, under which the Audit Commission, an independent public body responsible for ensuring that public money is spent economically, efficiently, and effectively was established.

The (Thatcher) government of that time was convinced that the public sector was inefficient and that great gains in efficiency could be brought about by what Jowett and Rothwell[3] suggested as "the introduction of private sector management techniques and explicitly commercial objectives."

In the FE sector, the external 'change agent' came in 1992 through the Further and Higher Education Act[4]. FE, Tertiary and Sixth Form Colleges became independent of local education authority (LEA) control as from 1st April 1993. At that time the sector comprised of 457 institutions with some three million students. The Act converted Further Education Colleges from Local Education Authority Institutions to independent publicly funded Corporations, with a mandate to manage all aspects of college organisation. Functional Units therefore cover: buildings and accommodation; personal and employment matters; continuing professional development; finance; management statistics; marketing and publicity; student applications and enrolments.

The Act also established the Further Education Funding Council for Wales (FEFCW) to administer the central government grant for further education institutions in Wales. Since then, the Welsh Assembly Government (WAG) has been charged with the responsibility of financing education in Wales with ELWa administering the grant for FE. The VET system in Wales, since April 2006, is administered by the Welsh Assembly Government's Department of Education and Life-Long Learning and Skills (DELLS). Dearing[5] summed up the origins of these political developments:

"Clearly, the development of corporate colleges was fostered by the underlying belief of central government in the market economy…

The aim was to allow colleges to organise their own business better to meet the needs of local communities and the national targets of increasing participation and qualification levels."

During the early years of change in the public sector, the claims of such professionals to do a professional job have had to compete with the claims of clients for better service delivery – for better medicine, education, better welfare and better security.

It was felt however, because of the different nature and 'social role' of the public services sector, the performance indicators employed to manage performance needed to be different to those of the private sector. Here indeed, was the real distinction between the professions (doctors, teachers, police officers and lawyers) and business, where self-interest is considered to be the accepted norm.

Because of social and behavioural expectations, the activities of core public organisations are restricted, which affects the way management can operate. McKevitt[6] argues that core public services should operate for the real benefit of clients and to stay within their area of specialisation and not diversify their activities in search of custom and profit maximisation, as is normal for private business.

McKevitt**[6]** goes on to cite the following as reasons why the management of core public organisations is the most challenging of all administrative tasks society has to offer,

"The nature of management in the core public services has, therefore, changed greatly in the past few years. From being mere custodians of institutions in a steady state, they have had to aim to be dynamic professional administrators offering excellence in service delivery to clients, who themselves are articulate in their needs and demands. These managers are also under the eye of the politician who, in turn, are articulate in promoting ideals of public service, not necessarily with the provision of ideal levels of resources."

One senior manager echoed the following sentiments during an interview at a case study college where changes in procedures have happened at a fast pace:

"Ten years ago there was no Self-Assessment Report (SAR) prepared for external agency audits….

…There was an action plan to work towards following the review of the institution by an external auditing body namely the OHMCI….

…In 1997, came the first Curriculum Area Assessment (CAA) undertaken by the OHMCI who had requested a report of that curriculum area prior to their visit and again an action plan was produced. However, the examination results and completion rates of students were analysed to a greater degree….

…Since that time and various staff development events, following the publication of the Common Inspection Framework (CIF) by Estyn, the faculty developed a standardised system for preparing evidence for a SAR."

Over this time, to encourage the increased effectiveness of FE institutions, the change towards more critical analysis of statistics began to fall in line with the political agenda linking to funding. The Minister for Education and Lifelong Learning at WAG, made it clear in a newspaper article as reported by Rees, J[7] that standards would be raised or funding would be withdrawn from post-16 training providers.

In successive annual Remit letters to the Chair of National Council, ELWa, the Minister makes reference to "driving up both standards and quality" and "the sharper progress over implementing its Quality Framework, so it effectively underpins the delivery of learning and improved value for money."

The Chair National Council, ELWa pointedly stating, in the same newspaper article, as reported by Rees, J[7] "Our commitment by 2008, to only fund providers who receive a minimum post-inspection grade three in all aspects of delivery and, by 2010, we intend to reduce this to a minimum grade two."

FE Institutions, as a business, rely heavily on the public purse and to ensure that this money is well spent, in line with the Minister's comments, ELWa's Quality Framework was developed. This was designed to measure the performance of the Learning Institution against others within the same sector.

To reinforce their commitment to quality, ELWa emphasised, through the "Aiming for Excellence: consultation on quality assurance of post-16 provision in schools"[8] that providers would be responsible for the quality of provision. Each institution was expected to develop a quality management system to ensure high standards

stressing that critical self-evaluation should be the starting point for improvement.

ELWa didn't, however, require providers to use a specific model for self-assessment citing a "not one size fits all" philosophy but expected processes and documents to reflect the good practice guidelines set out in "Self-assessment guidance for providers"[9] and "Self-assessment and planning for improvement"[10]

Estyn, the office of Her Majesty's Inspectorate for Education and Training in Wales, is independent of, but funded by, the National Assembly for Wales under Section 104 of the Government of Wales Act 1998 and contracted by WAG to carry out external audits of education and training.

It is no surprise, therefore, that Estyn inspection reports of training providers forms some of the evidence base for improvement and will be used to inform ELWa as part of their "Performance Provider Review" for that provider, in accordance with their quality handbook[11].

To help achieve this aim, through the offices of Estyn, the Common Inspection Framework[12] (CIF) was developed to assist in measuring the extent to which providers of education and training perform against seven Key Questions (KQs):

KQ 1 - How well do learners achieve?
KQ 2 - How effective are teaching, training and assessment?
KQ 3 - How well do learning experiences meet the needs and interests of learners and the wider community?
KQ 4 - How well are learners cared for, guided and supported?
KQ 5 - How effective are leadership and strategic management?
KQ 6 - How well do leaders and managers evaluate and improve quality and standards?
KQ 7 - How efficient are leaders and managers in using resources?

The range of Performance Indicators (PIs) used to review the performance of the Institution put the learner at the centre of the process and range from direct observation of teaching staff to the final attainment and retention outcomes for learners. The views of all stakeholders would be taken into account to ensure the Inspectors have a comprehensive "snapshot" of the effectiveness of all aspects of college business.

Quality improvement has therefore been an overarching demand on colleges in recent years. The consequence of not meeting national standards will in future have an impact on funding. Failure to comply with WAG requirements for self-evaluation and regulation will result in withdrawal of curriculum areas in under-performing colleges.

Activities

The lead-up to an inspection by Estyn will focus an institution on its systems and procedures for managing quality and, ultimately, its performance. The requirement to critically self-assess an Institution's own performance has taken on greater significance as a basis for Estyn to form its own judgement on the Institution's performance and effectiveness.

The Estyn Annual Report for 2004-2005[13] provides a useful backdrop to standards in Further Education in Wales. Some of the key elements of the report give a good indication of how well Further Education Colleges in Wales are achieving the required level of compliance. For example:

Issues in education and training

"All colleges evaluate their own work, but the effect that this has on improving standards varies too much within and between colleges. College teachers and managers do not use information on performance to review courses and teaching programmes enough, but many compare how well they are doing with national data. The number and quality of evaluations of areas such as finance and student services are improving, but often from a low starting point".

"In one college, self-evaluation systems have helped to achieve excellent standards. In the rest, the systems are not thorough enough to pick up and deal with the weaknesses in important areas".

"Most colleges arrange for teachers and trained assessors to watch each other's lessons. However, not all teachers take part due to timetabling difficulties. This lack of involvement by all teachers limits the opportunities that some have to improve their teaching and to learn from the good practice of others".

"Most colleges use a good range of methods to find out about the views of learners. In a few colleges, leaders and managers do not go on to use the results of this consultation effectively to make improvements, often because there is not

enough focus generally on improving standards throughout the college. Several colleges ask for the views of industry and other agencies, and a few use these well to improve provision".

Standards

"Standards vary too much across the sector. In about a quarter of sessions, learners on vocational courses reach outstanding standards in their practical work. Learners apply their knowledge of theory well to solve work-related problems. They make very good progress in well-chosen work placements in almost half of the colleges inspected. Many learners who enter colleges with poor qualifications improve their self-esteem and motivation. These learners often develop good study skills and gain confidence in their own abilities. In most programme areas, learners on academic and vocational courses make better progress than they did before starting college".

"However, too many learners do not complete their courses and gain qualifications. In many cases, this is because they receive poor guidance when they start college and enrol on courses that do not match their abilities and needs".

The quality of education and training

"Teaching has more good features than shortcomings in the five colleges inspected. In two colleges, the proportion of good teaching that has outstanding features or no important shortcomings is above 80%. Teachers often mark written work carefully and show learners how to improve their work. However, in the majority of colleges, there are still too many sessions with important shortcomings, such as weak planning and a lack of variety in teaching and learning approaches".

"Most colleges make good use of information about their local area to plan courses that meet the needs of learners, local communities and employers. Colleges offer a wide range of courses from entry level to level four. They give learners very good opportunities to progress to higher levels in their studies".

"All colleges take very good account of national priorities for lifelong learning when planning their programmes. They work closely with community and other groups to include more learners in education and training. Colleges often play a leading role in local partnerships for 14-to 19-year-olds. Colleges also provide many vocational and 'taster' courses, particularly for school pupils aged between 14 and 16".

"The number of learners taking full-time and part-time qualifications in colleges has increased a great deal over the last three years. Enrolments have increased by about 25%".

"Most learners benefit from good support services. Colleges quickly pick out learners who need extra support to help them learn effectively. More and more learners are taking up learning support. However, colleges are not measuring the effect of this support closely enough".

"Generally, colleges have useful guidelines for tutorial activities, but teachers do not always plan them well enough to help learners to improve their work. Teachers do not always make enough use of information about learners' attendance and punctuality when they set targets for improvement. A minority of learning areas in several colleges have poor attendance rates. In these areas, learners tend to achieve lower standards".

"Generally, staff work well together and with outside agencies to meet the varied needs of learners and to help them to overcome difficulties".

Leadership and management

"Senior managers usually offer strong direction and focus well on improving the quality of the work of the college. Most managers set appropriate targets at institutional and course levels. They regularly monitor progress against these targets. However, in a few colleges, targets do not focus enough on improving the standards reached by learners. Most colleges have been too slow to put in place effective systems to make sure that they know how well individual staff are working".

"Over the last year, many colleges have faced significant financial challenges to become more efficient. In most colleges, senior managers and governors have worked hard to make sure that the college offers better value for money. Often, this has meant:
- reducing the number of small classes;
- cutting courses that no longer meet students' needs; and
- managing the buildings, land and equipment more cost-effectively.

This emphasis on value for money may also include:

- reducing staff costs by changing staff contracts;
- using more part-time staff; and
- increasing class sizes.

Most colleges offer adequate or good value for money. However, in a few colleges, senior managers have not taken the hard decisions necessary to make their colleges more efficient".

"Many colleges have changed the roles of managers over the last year or so. Senior management teams are now smaller and more focused on planning for the future. However, a few teams still waste too much time on day-to-day issues and lose sight of longer-term aims and the need to improve standards".

"Colleges have responded well to local and national priorities, particularly in trying to attract more adults and under-represented groups into education and training. Senior managers have worked well with local planning partnerships, such as Community Consortia for Education and Training and 14-19 Networks (both explained in the glossary), and have often taken a leading role. Mergers between colleges have been a feature of further education over the past few years. A few managers have shown good leadership in taking these issues forward".

Presence Discussion

Each Further Education College will have an internal organisation uniquely influenced by its mission, size, ethos, and preferred management style and the prevailing socio-economic conditions; there are though distinctive similarities across the VET Sector. For instance each College will have a Chief Executive who is also the Principal. The Principal has responsibility for the day-to-day management of the college and for its academic leadership. Similarly, quality systems have evolved over recent years and these also vary by institution. Some have devised their own quality monitoring systems whilst others have adopted derivatives of recognised quality standards such as BS, ISO and EFQM.

Continual change from Government steers, awarding body requirements, funding restrictions, regional and socio-economic needs to provide value for money in education puts substantial pressure on training organisations to react rather than being proactive in shaping their own future.

Quality systems vie for the resources available to ensure compliance and are often compromised by the perceived cost/benefit.

The Metal Sector – Requirements and Needs for Teaching and Learning

In the UK there has been a strong emphasis in the last 10 years on a recognised need to improve the quality of teaching and learning in vocational training. In the past the most reliant measure was from external government inspections that allocated a grade between 1 (excellent) and 5 (poor) for each vocational/curriculum area.

More recently, Further Education institutions have been required to provide an annual critical self-assessment of all aspects of their operations including the quality of teaching and learning. This has then been monitored through risk-based external inspections to validate the institution's own perceptions of itself.

The question remains as to how effectively these changes have contributed to an improvement in the quality of teaching and learning. Various quality measures are in place to reflect movement in performance. These include: the number of learners enrolled on FE vocational courses, the number of learners completing courses, the number of learners achieving qualifications and the destination of learners following vocational training.

Since 1998/99 training for vocational education in the metal/engineering sector in Wales is depicted in the tables below: The tables indicate the total amount of qualifications studied by all learners (enrolled) and the percentage of those who completed the programme of study (completed). The percentage achieved is representative of the those who completed their programme.

Source: Wales National comparator statistics 1998/99 to 2003/04

18 and Under

Year	Enrolled	Completed	Achieved
1998/99	10224	75%	47%
1999/00	10698	66%	54%
2000/01	12640	77%	51%
2001/02	14121	79%	46%
2002/03	16572	76%	48%
2003/04	10728	82%	N/A

For those students aged 18 and under (mostly full-time students) whilst there has been an overall improvement in the rate of completion, the achievement rate has been fairly steady.

19 and Over

Year	Enrolled	Completed	Achieved
1998/99	13809	85%	40%
1999/00	14726	80%	44%
2000/01	13665	86%	55%
2001/02	15860	87%	51%
2002/03	15296	88%	60%
2003/04	18043	93%	N/A

For those students aged 19 and over (mostly part-time students) there has also been an overall improvement in the rate of completion, but the achievement rate has improved significantly.

Teaching and learning

There is a general consensus on the issues affecting the success of quality systems in the sector. These include:
- **The need to effectively manage change:** Working within existing (restrictive) internal structure/procedures as well as reacting to continuous change and managing an aging workforce resistant to change stifles the effective operation of quality systems.
- **Quality systems are not financed adequately**: QDS consequently is not seen as a major contributor to improving leaning outcomes.

Measures that would help to improve the quality of teaching and learning are:

- **Monitoring against targets:** The setting of clear individual targets for staff and of key performance indicators, that are appropriately monitored, to identify issues and the areas for improvement would provide the means to use action plans more effectively to resolve difficulties.
- **Resourced adequately inclusive of equipment and level of staff.** Devise a funding model that provides value for money within a framework of rewarding excellence.

1.4.2 Professionalism of teachers

The experts interviewed for this part of the research were of managerial position. The views reflected below are therefore not necessarily those of teachers. Some of the concerns of managers are that teachers:

- **See quality systems as extra work and so only give minimum effort:** Teachers are often expected to comply with QA systems without knowing why, or without receiving appropriate feedback.
- **Are concerned that constant change leads to insecurity:** Too many changes in the sector in recent years have damaged staff confidence that the work they are preparing will remain valid.
- **Have a "not my job" attitude:** Teachers do not recognise the benefits of using quality measures to influence future improvement and would prefer the "quality" work to be dome by others.

The attitude of teachers could change if quality was supported by:

- **Agreed clear priorities:** Personal targets for individuals and teams as well as establishing realistic performance indicators are an important aspect of good quality.
- **Adequate resources appropriate to the level of staff:** Resources need to be sufficient and are directed to the agreed areas. Also, where specific quality development projects are identified ensure that they are fully resourced, especially if extra time is needed.

Leadership and school management

Quality control systems are largely considered to be bureaucratic. One manager stated *"if systems cannot be financed we should focus on the important key indicators of attainment and retention. If we try to spread the budget we will find that quality systems will not support the infrastructure of FE".*

- **Flat management structure resulting in lack of time and resources to monitor QA systems:** The attitude to quality monitoring by leaders and managers is variable and the structure in colleges is too rigid to ensure quality monitoring is a high profile.
- **Quality systems are a distraction from the more fundamental roles of managing curriculum and staff.** Other priorities often overtake the more mundane demands of quality monitoring.

To be effective in their role leaders and managers require:

- **Additional staff to implement and monitor quality:** Some consider a stronger central team with responsibility for auditing as beneficial. Others argue that responsibility for quality rests with the individual manager who should be fully supported to fulfill this function.

– **Training is of paramount importance but in accepted procedures. The quality training seems disjointed:** A properly established training programme for managers is crucial if they are to be expected to fully benefit from QDS.

School/ class climate and culture

Socio-economic factors, and the changing culture I modern times, are cited by most as significant influences of the direction of further education and training particularly in the VET sector:

– **Changing priorities of the learner (social needs now come first) change in ability of applicants:** Learners and industry are different today than just a few years ago. Colleges need to be able to deliver quality programmes under ever increasing demands of budgetary constraints and the diverse needs of learners and the work-place.

Outer relationships

Colleges are involved with many external stakeholder groups and networks. They essentially are: Employers; Local Authority; Community Organisations; Secondary Schools; Sector Skills Councils; Community Consortia for Education and Training (CCETs); Careers Companies; Enterprise Agencies; Trades Unions; DELLS; Professional Organisations; Examination and Qualification Bodies; ESTYN (Inspectorate).

Teachers, functional officers, managers all are variously engaged with stakeholders. High priority is given to initiating, developing and maintaining relationships with individual contacts and networks. Collectively they are critical to informing each College's market intelligence. The information helps a College to develop new provision and maintain the relevance of existing courses.

Improved communications and one common quality system for all awarding bodies, managed by the FE system, was cited by one manager as a desirable objective. This would still however have to be achieved whilst allowing colleges flexibility to manage.

9.2 Case Study

Two case studies were undertaken reflecting the impact of quality systems on education and training in the metal and engineering sector in the Wales (UK). The purpose of the studies was to obtain an appropriate cross section of opinions from educational establishments within the sector. The following colleges took part in the case studies

Coleg Morgannwg - Staff from the School of Engineering

Merthyr College - Staff from the School of Engineering

Teaching and learning

The case study colleges cited various concerns over the effective implementation of quality systems. These include:

– **The effect of management of change on internal structures and procedures together with an ageing and unresponsive workforce:** Increasing financial constraints on colleges has meant that they have found it necessary to restructure (sometimes more than once) in recent years. This uncertainty can be an additional challenge to staff trying to meet new

managerial demands. Coupled with a largely ageing workforce, some of whom are resistant to change, this has put pressure on QA systems to ensure compliance.

– **Teachers do not always see the benefit of QDS in influencing learning outcomes:** Some aspects of QA are perceived as requiring "extra" work from teachers just to satisfy the system, not as a mechanism to drive forward improvement in their particular area.

– **Suspicion over the validity of central data capture systems can sometimes cause duplication of effort in record keeping:** Colleges have for many years struggled to maintain reliable and accurate central data. Management Information Systems (MIS) are not seen to be beneficial to academic staff and do not give the required information. This has meant that many areas have devoted much time and effort into keeping their own records.

Some suggestion that would improve the impact of quality measures include:

– **Monitoring against targets:** Negotiated and agreed targets that can be effectively monitored would provide reliable performance measures upon which to judge improvements.

– **Identifying and supporting action plans to resolve difficulties:** Action Plans for improvement should not be regarded as a wish list that is someone else's responsibility to provide. Each Action Plan must be "owned" by the people who prepare it and progress monitored frequently to ensure planned improvements are effected.

– **Resource allocation models:** This would help to ensure a fairer distribution of resources to those areas that can plan and achieve agreed targets.

Professionalism of teachers

Quality systems have imposed more bureaucracy on teachers to evidence and prove compliance. The concerns identified in the case studies included:

– **Quality monitoring is not necessarily seen by teachers as part of their role:** "Teachers are here to teach". The added bureaucracy created through quality monitoring detracts from the time available to teach.

– **Quality systems create unnecessary extra work:** Work undertaken in proving compliance with systems is done for managers' benefit and is not used effectively by teachers to improve performance.

– **Perceived lack of trust in teachers' professional judgement:** There is a feeling amongst some staff that quality monitoring is an imposed autocracy that undermines their own professionalism.

– **Need to continually adapt to changing external environment and internal forces:** Continuous change in recent years through Government legislation, awarding bodies and internal reorganisation has left staff pondering the efficacy of planning a coherent provision when it is likely to be different in the near future. Whilst some change is seen as beneficial, the lack of stability caused through constant change and uncertainty is detrimental to a quality provision.

If teachers are expected to see the value of quality monitoring as a means to improve efficiency and effectiveness, they feel that it should be resourced adequately and appropriate time provided.

Leadership and school management

Management structures vary in the case study colleges. This creates tension in the implementation of quality monitoring measures that include:

– **Lack of time and resources to monitor QA systems:** There is a divergence of views on the need to fully resource QA monitoring systems. On the one hand it is argued that QA is free because it will improve the key Performance Indictors with a consequent impact on related funding. On the other hand excessive quality monitoring measures are counter-productive and divert much needed resources away from other key activities.

– **Extra workload resulting in minimum involvement in monitoring quality:** Leaders and managers in the case study colleges have been prohibited from giving sufficient time to quality due to the more pressing demands of financial constraint. The implied argument therefore of the equilibrium needed to balance quality with value for money has sometimes been overshadowed by external factors.

– **Lack of confidence in the system to act as an effective tool to improve under-performance:** *Managers are reluctant to impose sanctions or punitive measures in areas of under-performance based on the evidence from quality assurance exercises. Consequently, staff have been able to "get away with" non-performance with little or consequence.*

– **Some suspicion that managers are using the quality system for other agendas:** *Concerns amongst staff that leaders and managers are not entirely open about why quality systems are being used.*

Suggestions for improvement in leadership and management are:

– **Provide training for managers that is consistent and to agreed procedures:** *Need to fully brief/train managers in using the information from quality monitoring to bring about improvement.*

– **Additional staff to assist the implementation and monitoring:** *Greater use of a central team to undertake audits.*

– **Performance Management and Appraisal:** *Clear individual appraisal by managers so that staff know what they have to do to improve.*

An example of activity in one of the case study colleges was that programme area Self-Assessment Reports were moderated and action plans updated through Quality Assurance Boards and meetings in line with the College's published Quality Framework.

However, following the Estyn inspection of the college in April 2005, the inspection report judged

the college's work in the two key questions relating to quality monitoring and quality as:

- Key Question 5 – Grade 3 citing some of the following comments:

  "….corporate mechanisms to monitor and drive implementation of some strategic curriculum and quality objectives are not strong enough and lines of accountability are too weak. This means, for instance, that monitoring to check quality and to trigger intervention when performance falls below quality thresholds is not effective enough…"

  "…..arrangements for appraisals of staff other than the principal and senior managers are weak and are largely related to identifying their staff development needs rather than managing performance and capability..."

- Key Question 6 – Grade 3 citing such comments as:

  "there is far too much variation in how well managers and course tutors use and interpret the quality system….. Some schools use the system particularly well to drive forward implementation or to maintain high quality but others do not analyse their performance robustly enough. Over generous evaluations are fed into the quality systems and these are not challenged enough by more senior managers…"

There was obvious room for improvement at the Case Study College if it was to continue to improve in line with the planned targets set by the funding body, ELWa. Failure to address and then achieve these targets would obviously result in a major risk to the overall financial stability of the organisation.

The pressures to be well managed, fairly rewarded for what they do and developed to their full potential come from all categories of staff. A strategic plan that does not take account of the needs for and of their workforce, is a plan doomed to failure. The value of a well-conceived and executed human resource plan is an integral part of the corporate plan.

As a consequence of the indifferent findings by Estyn, the college has refined its systems by introducing a centralised quality audit team to sample teaching, learning, stakeholder opinions and management processes across the college with a

view to providing consistent feedback and sharing good practice.

Similar approaches are mirrored in other institutions involved in this study that have reacted to inspections by implementing their own quality monitoring procedures.

School/ class climate and culture

Throughout the case study colleges socio-economic factors are seen to be key considerations in the culture of the class climate. A reduction in class contact time and the added burden of quality monitoring has resulted in learners being expected to manage their own time more effectively. The changing demands and expectations of students towards learning has however, increased the onus on teachers to provide individual support.

Outer relationships

Employer engagement is not systematically undertaken in either of the case study colleges. There are however good relationships with a few major employers and this helps to shape the curriculum and agree individual student training programmes.

Financial constraints, in recent years, on VET in FE institutions have been blamed for this lack of active interest. However Funding for Learning and Skills 2006 -2008 and the DfES Grant Letter for 2006 clearly state the planned "rebalancing of public and private contributions to the cost of education and training". Both emphasise the "major shift" required to ensure that "the sector has a more diversified and sustainable funding base built on rising contributions from individuals and employers who are willing to pay more for training delivered". The sector is being warned of the need to "move quickly to embed the principles of flexibility and responsiveness" employers will demand if they are to be persuaded to pay for the training they have been used to receiving at no cost.

There are some significant challenges here for the sector: Employers will demand increasingly bespoke approaches and demonstrable benefits of training if they are to be persuaded to pay more for it. They are likely to request more flexible delivery methods and timescales. Some will want more involvement, others less, and all will need targeted information they can understand. The FE sector will have to produce information about their services and the related costs that can be used by brokers.

9.3 Discussion and Conclusions

Discussion of the Studies in the Metal Sector

Both case study institutions were able to reflect on the impact of quality instruments and to draw on their experiences in attempting to implement, sometimes demanding measures to prove compliance.

Strengths of the actual situation

Both case studies confirmed that many approaches to quality have been used. Some of the more successful have been:

–   The use of Individual Learning Plans for students that provides a sound process of support for each individual (some concerns were expressed about the onerous amount of paperwork)
–   A clear quality framework/handbook that identifies types of audit probe to be carried out. The probes provide useful evidence for self-assessment and benchmarking, and for identifying and sharing good practice.
–   Classroom observations have worked well to develop staff and to ensure a level of consistency in the quality of classroom activity.
–   The use of data and better understanding of performance indicators such as completion and attainment. All staff now have a much better understanding of the funding implication of falling below threshold performance.
–   Benchmarking with other institutions provide a very good forum for developing ideas and sharing good practice. The events can however be time consuming and difficult to organise.
–   A raised awareness of the importance of constructive feedback to learners.
–   Student perception surveys through questionnaires or in structured discussions provide excellent information to use in self-assessment and to identify key areas for improvement.
–   Some of the aspects of self-assessment, for example the opportunity to reflect and review with colleagues have been beneficial, but the paperwork requirements are too great.

Weaknesses of the actual situation

Most quality measures are seen to be of relevance, however there a number of obstacles referred to in the case study findings. These include:

–   The time required to prove compliance can outweigh the benefit.
–   Sometimes quality systems require a change of culture in parts of the organisation and embedding the necessary changes is often challenging and time-consuming.
–   Self-assessment, whilst accepted as necessary, is not always treated seriously enough and does not lead to planning for improvement.

Opportunities for the future

For quality systems to be effective and genuinely drive continuous improvement the case study colleges considered some key factors to be important:

–   Clearer guidance and agreement on the quality standards expected both internally and externally/nationally
–   Clear job roles and the use of performance management
–   Quality systems properly supported at a senior level.

Risks for the future

Colleges face particular risks if the quality of education and learning is not of sufficient standard. Both case study colleges expressed concerns of the impact if the focus of the organisation does not ensure that quality standards are maintained/improved.   The main risks identified were:-
–   A decline in student recruitment.
–   Student dissatisfaction leading to poor retention and a high drop out.
–   An overall reduction in funding.
–   The removal of under-performing programme areas.
–   Failure to recruit appropriately qualified teaching and assessment staff.
–   Inability to establish meaningful performance indicator targets which are both realistic and achievable.
–   Staff not fully versed in quality management to be able to benefit from monitoring arrangements.

Conclusions

The behaviour of organisations during periods of change is critical and, it is extremely difficult and dangerous to move too quickly in changing the culture of an organisation in order to achieve improvements in performance. Pace of change and communication were identified as the critical success factors.

Additional evidence suggested that where performance improvement had been achieved the change process must involve all the staff of the organisation led by strong, determined and visionary leaders with a supportive and active governing body. That is to say, There is no single factor, rather a combination of many, running through a successful organisation at all level.

There must be reliable operating systems and procedures in place to review staff performance properly through a coherent set of measures and targets that state both long and short-term goals. These goals, should be aspirational, but achievable with rewards for success.

Throughout the case study colleges there are many good examples of quality measures that work effectively and where used properly are successful in bringing about improvement. However, there is not a "one size fits all" and what works for some areas may not work in others. The table below identifies the key messages from the case studies:

Success in delivering targeted performance should have real consequences at an individual level. Rewards could include non-financial rewards such as career, training and development opportunities. One particularly important issue with a direct effect on staff motivation and consequently performance is that of dealing with under-performance or one may say "closing the loop". In many cases, the absence of management action in cases of poor performance had been identified as being a major de-motivator especially in the public sector and systems alone did not deliver effective performance

Reflecting on the rate and volume of change that has particularly affected the case study colleges in recent years, it could be concluded that the implicit professional approach of many staff has delivered performance in the vast majority of the areas of learning under extremely difficult circumstances.

Table 10: *United Kingdom: strengths and risks in the presence and in the future*

	Presence	Future
Positive	▪ Individual Learning Plans ▪ Quality probes ▪ Classroom observations ▪ The use of data and performance indicators ▪ Benchmarking with other institutions ▪ Constructive feedback to learners. ▪ Stakeholder opinions ▪ Self-assessment	▪ Guidance on quality standards ▪ Clear job roles ▪ Performance management ▪ Support for Quality systems
Negative	▪ The time required ▪ Change of culture ▪ Self-assessment, not treated seriously	▪ Decline in student recruitment. ▪ Student dissatisfaction ▪ A reduction in funding. ▪ Removal of programme areas. ▪ Failure to recruit qualified staff. ▪ Meaningless performance indicator targets ▪ Staff not versed in quality management

The managerial response to this is to assure that a robust infrastructure is in place to make the stepped improvements to achieve the targets as set out by WAG. That will take time, energy and finance and that is a challenge in itself in difficult times but one that can be achieved.

One of the key factors to the successful implementation of any improvement plan is a model that has been planned thoroughly taking into account the full financial implications of the cultural change to roles and responsibility of just about every member of staff working to the common goal of performing "performance" and achieving the continuous improvement culture driven by the WAG whilst identifying and managing the risk of the those changes.

Bibliography

Comptroller and Auditor General; National Audit Office; Downey, Gordon 1986, Financial Management Initiative.

UK Government 1982, Local Government Finance Act.

Jowett, P. & Rothwell, M. 1988, Performance Indicators in the Public Sector, 3.

UK Government 1992, Further and Higher Education Act.

Dearing, R 1997, Higher Education in the Learning Society, 3.

McKevitt, D 1998, Managing Core Public Services, 7-8.

Rees, J. 2005, Western Mail.

ELWa, 2004, Aiming for Excellence: consultation on quality assurance of post-16 provision in schools.

ELWa 2004 (updated 2006), Self-assessment guidance for providers of further education, work-based learning and community learning

Dysg 2006, Self-assessment and planning for improvement.

ELWa 2005, Quality Handbook – Provider Performance, Making quality work for you.

Estyn 2001, The Common Inspection Framework for Education and Training in Wales.

Estyn 2005, The Annual Report of Her Majesty's Chief Inspector of Education and Training in Wales 2004-2005.

10 Conclusions

Georg SPÖTTL

Universität Bremen, Institut Technik und Bildung, Am Fallturm 1, 28209 Bremen

The European Common Quality Assurance Framework (CQAF) suggests that quality in vocational training can be clearly identified.

The European Quality Assurance Framework (CQAF) postulates to cover "at the same time … all the core criteria for promoting quality in VET" and also respects "the different local choices within each Member State". This is, however, also the fate of the CQAF. With this postulation the CQAF can only remain very vague and does not even basically answer the question of quality in VET.

Even if the idea to amend the European Qualification Framework (EQF) by a European Quality Assurance Framework (CQAF) is very interesting it has to be stated that the entire character of the CQAF has so far been formulated only in a very abstract way. Also the direction of the discussion of concretisation remains in the dark.

Therefore it is crucial to influence the shaping process from a concrete vocational pedagogical perspective whenever relevant and to add a notion of quality which is not only clearly describing the term but which also places the issue of competence development in young people in the centre of all reflections and concrete implementation measures.

Every partner country of the QualiVet project is dealing with the issue of quality and/or quality assurance, albeit in very different ways.

There are manifold activities and initiatives in terms of quality assurance and quality development in the partner countries of the QualiVet project. Nevertheless

- individual initiatives have normally no mutual relationships,

- quality instruments are only used in a very segmented way and

- concepts developed on a European level so far play no or only a very limited role in schools and companies when it comes to qualification concepts.

The country reports and the case studies reveal an interesting spectrum with regard to quality initiatives. One of the pools characterises educational programmes (Czech Republic) which have to fit into a country-wide framework (Framework Educational Programme – FEP).

At the same time the quality development is selectively supported by school development programmes (School Educational Programmes – SEP) without resulting in formally secured national initiatives. The other pool consists of the development of quality assurance instruments aimed at the vocational educational systems in order to engage in an ongoing process of self-assessment and further development of school quality (cf. Austria).

It is, however, remarkable in all partner countries that these developments and the application of quality assuring measures represents an informal issue which is eventually supporting an extremely heterogeneous profiling of the instruments.

The countries between informal quality assurance and the desire for secured quality development.

Quality development and quality assurance undoubtedly have a high significance in all participating countries. This is not only true in terms of argumentation but is also reflected in the real planning practice. As for both school and company based training it can, however, be stated that there are a number of initiatives for the development of quality instruments based on ISO, EFQM, Q2E etc. and that these instruments are already applied by various institutions.

However, there is no partner country stipulating a country-wide obligation to apply these instruments. As a rule the institutions do have the liberty to decide which instruments they are going to apply. This leads to a distinct heterogeneity when it comes to the use of different instruments and hampers to adapt both quality development and quality assurance to a comparable level because the quality levels to be aimed at are defined by individual institutions or companies.

Some European countries have created a legal framework supporting the quality development in vocational initial and further training. These chances are, however, only made use of in a very inadequate way.

Exemplary laws on quality development in vocational initial and further training count are e.g.:

- the Law on Adult and Professional Education of August 1, 1997 of the Netherlands. This law governs the secondary vocational education in the Netherlands and is meant to bring vocational education and industry closer together.

- Quality monitoring in the UK public sector emanates from the Financial Management Initiative launched in 1982 and published in 1986. The Thatcher government was convinced that the public sector gains in efficiency and that great gains in efficiency could be brought about what was suggested as "the introduction of private sector management techniques and explicitly commercial objectives". In the Further Education (FE) sector, the external "change agent" came in 1992 through the Further and Higher Education Act. This Act converted Further Education Colleges from Local Education Authority Institutions to independent publicly funded Cooperation. The aim was to allow colleges to organise their own businesses better to meet the requirements. Eventually this led to the fact that educational facilities engaged in quality development and an assessment.

- The Berufsbildungsgesetz (Vocational Act) in Germany regulates the entire vocational education and training system including the quality requirements. The Vocational Act was first passed by the Bundestag (Federal Parliament) in 1969.

It is interesting to note that the British approach has very well developed in the meantime. Some agents responsible for the inspection apply precise "Performance Providers" focussing on the quality of learning.

Nevertheless the mentioned exemplary regulations are exclusive national procedures which so far have no direct impact on the European discussion and have therefore neither influenced the entire development nor the work of individual projects with a view to Europe. It would therefore be very useful to check whether national instruments could be applied also for the transnational work in projects.

The term of quality is lucrative and very well suited to serve as a political keyword. So far there is no clear-cut definition of the term of quality.

The term of quality has so far not been unambiguously defined – in spite of a great number of definitions in existence. According to the German Vocational Act (§ 1, para. 3) the term describes the vocational ability to act, i.e. the ability to "carry out a qualified vocational skilled work in a changing world of work." The CQAF defines: "Quality is context-dependent, i.e. without a concrete context it would be difficult (and meaningless) to define quality … Quality = fulfilment of goals. One achieves quality when the activities fulfil the goals." Both definitions do not clarify the importance of quality during a learning process or during competence development and what it is as such. Quality remains an abstract term and thus can well be exploited by politics.

European projects dealing with the term of quality are therefore facing the challenge to aim at three objectives:

1. They have to agree upon a term of quality to be applied within the project work and which is also justifiable in a European context.

2. The notion of quality of a project consortium must also be transportable on a national level.

3. Every notion of quality, every term of quality must be precisely defined in order to make a statement for learning and the results of learning – eventually for competence development.

It is a huge future oriented task to find ways to attain these goals.

Evaluate Europe Handbook Series
Volume 3

The present study with the title "Quality Development and Quality Assurance with Labour Market Reference for the Vocational Education and Training System in the Metal Sector" analyses the introduction of quality assurance systems (QAS) in different European countries. Recently the introduction of QAS has been given a high priority in vocational education and training (VET) systems all over Europe. By introducing QAS the VET providers seek to assess the efficiency and the use of resources – both from the organisational perspective and from the view of individual users. However, in different VET cultures this aim is linked to different challenges. In countries that have dual systems of apprenticeship the introduction of QAS is not only a matter for vocational schools. The assessment has to take into account also the training enterprises. In Germany the introduction of QAS is related to a major shift from the traditional input-oriented quality awareness to more output-oriented approaches on the quality of VET. In some other countries output-oriented assessment patterns have been a major feature of the VET culture for a longer time (e.g. in the United Kingdom).