

# Vocational Education & Training

In developing countries



An exploration of the quality and a design of guidelines

## Colofon

### Study

University of Twente  
Educational Science and Technology  
Department Human Resource Development

### Subject

Quality of Vocational Education and Training in developing countries

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## Preface

My study period is about to end. The time has come to finish this exciting period of my life in which I have developed myself, intellectually as well as emotionally. Now it is time to apply all this knowledge and experiences in real working life.

In front of you lies the final thesis of the master Educational Science and Technology, department Human Resource Development. This thesis is the result of the final project about the quality of Vocational Education in developing countries, done for foundation Woord en Daad. After a period of interesting, but hard work I am proud to present this report as a final assignment to graduate and become Master of Science. Doing twice as much work as the curriculum of my study actually demands, was not only much more interesting and challenging for myself, but produces a thorough thesis which is very useful for Woord en Daad and their partner-organizations for improving or starting vocational education in developing countries. Besides for Woord en Daad, this report could be useful for other organizations or individuals working with Vocational Education in the developing world as well.

I would like to use this preface to express thanks to all whom supported me during my final project. Firstly, my mentors Annette Thijs and Jos de Kock; thank you for your guidance and useful feedback during this study. Secondly, Irene Visscher-Voerman and Dicky Nieuwenhuis; thank you for helping in the marking of this thesis and arranging several practical matters. All the participants of the expert meeting; thank you for your interesting and useful input in this study. Ato Zenebe and Ato Tafera; thank you for being my guide in Ethiopia and arranging the wonderful and impressive program for the case study. Of course also all my friends; thank you for your encouragements and listening to all my adventures during this graduation period. Last, but certainly not least, Erwin; thank you for being my tower of strength, always willing to help and support me until the last detail of this report.

I hope you will enjoy reading this thesis and of course I hope even more that it can add something useful to your work or maybe even your personal life.

Willemien Hoogerwaard

Enschede, April 2006

## Dutch summary

Dit onderzoek is uitgevoerd voor stichting Woord en Daad, een hulporganisatie werkzaam met verschillende lokale partnerorganisaties in ontwikkelingslanden. De doelen van dit onderzoek zijn:

- het verder uitbreiden van expertise op het gebied van beroepsonderwijs binnen Woord en Daad en het aanbieden van een basis voor een kennisnetwerk voor kennisuitwisseling in de toekomst;
- het aanbieden van concrete richtlijnen aan partnerorganisaties van Woord en Daad werkzaam in ontwikkelingslanden, om bestaande projecten te verbeteren of nieuwe projecten in beroepsonderwijs te starten.

Om deze doelen te behalen is de volgende hoofdvraag behandeld in dit onderzoek:

***Wat zijn kwesties, trends en uitdagingen gerelateerd aan de kwaliteit van beroepsonderwijs in ontwikkelingslanden en hoe beïnvloeden deze de kwaliteit van beroepsonderwijs aangeboden door partnerorganisaties van Woord en Daad werkzaam in ontwikkelingslanden?***

Om deze vraag te beantwoorden zijn twee analyses uitgevoerd; een conceptuele analyse en een empirische analyse. De conceptuele analyse bestond uit een literatuuranalyse en een expertmeeting. In de empirische analyse zijn een documentanalyse van partnerorganisaties in Burkina Faso, India en Ethiopië en een casestudie van een trainingscentrum voor beroepsonderwijs (VTC) van de partnerorganisatie Hope Enterprises in Addis Abeba, Ethiopië uitgevoerd.

De belangrijkste resultaten vanuit de twee analyses zijn kwesties, trends en uitdagingen gerelateerd aan doelen, inhoud, processen, effecten en middelen en condities in beroepsonderwijs (VET) in ontwikkelingslanden. Een voorbeeld van een kwestie gerelateerd aan 'middelen en condities' in VET is het belang van het gebruik van up-to-date docenten en werkruimtes inclusief bijbehorende machines en materialen. Omdat dit vaak een moeilijk aspect is vanwege gebrek aan budget, een grote uitdaging voor de toekomst is manieren te vinden om bestaande middelen te verbeteren of om geld in te zamelen voor de aanschaf van nieuwe middelen. Een totaal verschillend resultaat vanuit de literatuuranalyse is een basis voor een kennisnetwerk rondom VET door het leggen van eerste contacten met experts in dit vakgebied.

De overeenstemming tussen kwesties, trends en uitdagingen vanuit de conceptuele analyse en empirische analyse is tamelijk goed. Een van de hoofdconclusies van dit onderzoek betreft het belang van de integratie van sociale doelen in VET naast de economische doelen. Vaak wordt het opleiden voor een geschikte plaats op de arbeidsmarkt alleen als het doel van VET gezien, terwijl persoonlijke ontwikkeling en culturele ontwikkeling ook erg belangrijk is. Deze visie werkt door in alle delen van het curriculum; inhoud, processen, effecten en middelen en condities. Bijvoorbeeld met betrekking tot de inhoud van VET, betekent dit het aanleren van zowel specifieke beroepsvaardigheden als sociale vaardigheden, zoals communicatievaardigheden, ethiek and burgerschap. Een tweede hoofdconclusie betreft het belang van de relatie tussen VET en de arbeidsmarkt. Als deze relatie goed verloopt, dan kan het bruikbaar zijn voor het aanpassen van doelen, inhoud, processen, effecten en middelen en condities in VET aan de wensen van de arbeidsmarkt.

Het hoofresultaat van dit onderzoek zijn richtlijnen voor partnerorganisaties van Woord en Daad om bestaande projecten in het beroepsonderwijs te verbeteren of nieuwe projecten te starten. Deze richtlijnen zijn praktisch gemaakt door het gebruik van succesvoorbeelden uit de praktijk. Een voorbeeld van een richtlijn is: het praktijkgedeelte is het hoofdonderdeel van de training. 70% praktijk en 30% theorie is een succesvoorbeeld in de casus van Hope Enterprises in Ethiopië.

Naast deze aanbevelingen voor partnerorganisaties van Woord en Daad zijn er ook aanbevelingen voor Woord en Daad geformuleerd, voornamelijk om het complexe proces van implementatie van deze richtlijnen te faciliteren.

## English summary

This study is done for foundation Woord en Daad, a development organization working with several local partner-organizations in developing countries. The aims of this study are to:

- further extend expertise about vocational education within Woord en Daad and offer a basis to a network for knowledge exchange in future;
- offer partner-organizations of Woord en Daad working in developing countries guidelines to improve existing or start new projects in vocational education.

In order to achieve this goal the following main question is answered in this study:

***What are issues, trends and challenges related to quality of vocational education in developing countries and how do they influence the quality of vocational education provided by partner-organizations of Woord en Daad working in developing countries?***

For answering this question two analyses are done; a conceptual analysis and an empirical analysis. The conceptual analysis consists of a literature analysis and an expert meeting in response to the results of the latter. In the empirical analysis a document analysis about the quality of vocational education offered by partner-organizations of Woord en Daad in Burkina Faso, India and Ethiopia and a case study of the quality of a Vocational Training Center (VTC) of the partner-organization Hope Enterprises in Addis Abeba, Ethiopia are done.

Main results of these two analyses are issues, trends and challenges related to goals, content, processes, effects and resources and conditions in Vocational Education and Training (VET) in developing countries. An example of an issue related to 'resources and conditions' of VET is the importance of using up-to-date instructors and workshops, including accessory materials. Because this is often difficult because of shortage of money, the main challenge in VET is to try to find ways to improve the existing resources or raise more money for buying new ones. A totally different result of the literature analysis is a basis for a knowledge network around VET through offering first contacts with experts in the field.

The correspondence between issues, trends and challenges from the conceptual analysis and the empirical analysis is rather well. One of the main conclusions drawn from this study is the importance of social goals in VET besides the economic goals. Often only the goal of getting youngsters onto a job is highlighted, but personal development of youngsters and cultural development is also important. This influences all the parts of the curriculum; content, processes, effects and resources and conditions. For example, in relation to 'content' this means teaching specific vocational skills as well as social skills like communication skills, ethics and citizenship. Besides this, another main conclusion is that the relationship between VET and labour market is very important. When this relationship is established well, this could be useful for adjusting goals, content, processes, effects and resources and conditions in VET to the demands of labour market.

The final results of this study are recommendations for partner-organizations of Woord en Daad to improve existing or start new projects in VET. These recommendations are made practical through designing guidelines using elements of good practice. An example is: offer practice as a major part of your education. 70% practice and 30% theory is a good practice at Hope Enterprises, Ethiopia. Besides that some recommendation to Woord en Daad are given to stimulate the implementation of these guidelines, which is a complicated process.

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# 1 Introduction

## 1.1 Background

Woord en Daad is a foundation that aims to fight poverty in Africa, Asia and Central-America from a Christian perspective. One way to achieve this is supporting vocational education. Practice-oriented good quality education (especially for lower educated and drop-outs which have little perspective on the labour market) can offer youngsters a good opportunity entering the labour market successfully. Despite the need for well skilled employees, vocational education has a low status, in developing countries as well as in The Netherlands itself. This kind of education is often seen as second-hand, only chosen if entering or continuing regular education is not possible. Besides this, the connection from education to the labour market often is not successfully organized. These reasons cause underestimation of the importance of vocational education by donors of developing projects.

Woord en Daad cooperates with local non-governmental partner-organizations, (NGO's) in developing countries which also offer vocational education and therefore also face problems due to low status and difficulties in the connection with labour market. It is difficult for them to offer and maintain good quality vocational education opportunities. This is why Woord en Daad wants to deepen her knowledge about the quality of vocational education to develop expertise in this field. With this expertise she wants to offer concrete assistance to their partner-organizations for improving or starting new projects in vocational education. To be able to continue the expertise-development of vocational education Woord en Daad wants to start a network for knowledge exchange in future. These are the reasons why exploring the quality of vocational education in developing countries and designing guidelines for partner-organizations of Woord en Daad is needed, and therefore are the central aspects of this thesis.

## 1.2 Organizational context

### History

Woord en Daad is founded in 1973. It started as an initiative of a few enthusiastic individuals, and is grown into a professional, international organization. The original mission still stands: poverty reduction from a biblical perspective. Woord en Daad has 32 employees and a lot of voluntary local committees with about 750 volunteers which collect money for and give information about Woord en Daad, contact the press, and organize markets through the whole country.

### Activities

Woord en Daad structurally cooperates with Christian partner-organizations through three head programmes; an Education program (primary, secondary, higher and tertiary education), Job & Income program (vocational training, job mediation and starting small business), Basic Needs program (health care, water and agriculture). They work in 20 different countries in Asia, Africa and Central-America.

In addition to the vocational education program, Woord en Daad designed the concept of job & business centers, for guiding youngsters onto the labour market after their graduation. A certificate only, namely is no guarantee for a good job and youngsters often miss networks and social skills which are needed in finding a job. Woord en Daad also helps youngsters setting up their own enterprises through arranging loans and guiding the design of business plans. The business platform of Woord en Daad containing several Dutch entrepreneurs, serves as an advisory body in this process.

### 1.3 Problem definition and exploration

The overall aims of this study are to:

- further extend expertise about vocational education within Woord en Daad and offer a basis to a network for knowledge exchange in future;
- offer partner-organizations of Woord en Daad, working in developing countries, guidelines to improve existing or start new projects in vocational education.

During this study an extensive research report about quality-related issues in vocational education has been developed. Besides that, first contacts with experts in this field have been made. Finally this research has brought forth guidelines for partner-organizations of Woord en Daad working with vocational education in developing countries.

It is proven that vocational education is a good way to offer youngsters future perspectives (United Nations, 2003). Globally vocational education is characterized by a big amount of different approaches, like school-based education, informal training possibilities or a combination of both. In response to the world economy a market-centered approach is getting more popular (Maintz, 2004). Skills should be adjustable to the changing demand and rising of new markets in ICT and technology. Also the rising of knowledge-intensive work plays an important role in vocational education. These are some aspects which show vocational education is a diverse and changing field. To further extend expertise about this field, which can be used to improve the quality of vocational education offered partner-organizations of Woord en Daad, it is important to investigate this diversity. Therefore it is important to study different opinions, results of research and figures concerning issues, trends and challenges in vocational education in developing countries. Therefore the two goals of this study will be achieved by answering the following overall question;

***What are issues, trends and challenges related to the quality of vocational education in developing countries and how do they influence the quality of vocational education provided by partner-organizations of Woord en Daad working in developing countries?***

This question can be divided into two sub-questions. At first, in order to explore different opinions, facts and meanings concerning the issues, trends and challenges related to the concept of quality of vocational education, the following research question is answered. This question is posed in a global context with an accent on the developing world:

***1. What are issues, trends and challenges related to quality of vocational education in developing countries from a conceptual perspective?***

This question again is divided into two sub-questions. In order to extend expertise about vocational education in developing countries (first goal), firstly issues, trends and challenges in literature are explored. This is done through answering the following question:

***1a. What are issues, trends and challenges related to the quality of vocational education in developing countries in literature?***

To be able to also achieve the second goal of this study; assisting partner-organizations of Woord en Daad in improving existing or starting new projects in vocational education, the concluding answer to this question will form a first prototype of guidelines, a quality-card. In order to increase the validity, relevance and usefulness of this quality-card, experts are asked for their opinion. Therefore the following question will be answered:

***1b. What are opinions of experts about issues, trends and challenges related to the quality of vocational education in developing countries?***

To be able to achieve the two goals of this study, a conceptual analysis only is not enough. To design practical recommendations for people working with vocational education in developing countries, besides a conceptual analysis, a view on the current practice is needed. This is needed because often there appears to be a gap between intentions in literature and real practice. Drawing conclusions out of general theory only, is not useful when it is not applicable in practice of projects of Woord en Daad. Partners of Woord en Daad will not be helped if recommendations are not applicable in their situation. Because every country and situation has its own contextual factors which can influence the process of vocational education, a more specific view on real practice of vocational education within certain contexts is gained through answering the following research question:

***2. What are issues and challenges related to the quality of vocational education in developing countries from an empirical perspective?***

In order to get detailed information about the practice of vocational education in developing countries, the sub-questions stated below are gradually zooming in on practice. Woord en Daad cooperates with several local non-governmental organizations (NGO's) around the world. Therefore the scope firstly will be restricted to partner-NGO's of Woord en Daad working with vocational education projects. Therefore the first sub-question is stated as follows:

***2a. What are issues and challenges related to the quality of vocational education offered by partner-NGO's of Woord en Daad?***

To answer this sub-question, partner-NGO's within three countries are selected; Burkina Faso, India and Ethiopia. Reasons for this selection are given in the detailed design, described in paragraph 3.2.1. According to the experts involved in answering question 1b., to be able to design practical guidelines for partner-organizations, the scope of the empirical analysis has to be restricted even further. To get as much information as possible in a limited amount of time, the second sub-question focuses on a promising vocational education project of one of the partner-NGO's of Woord en Daad. The question to be answered is as follows:

***2b. What are characteristics of quality of a promising vocational education project of a partner-NGO of Woord en Daad?***

To answer this sub-question the Vocational Training Center (VTC) of Hope Enterprises in Addis Abeba, Ethiopia is selected. Different stakeholders in this project will be asked their opinion about characteristics of quality of the project. Again reasons for the selection of the method, case and respondents will be given in the detailed design of this part (paragraph 3.3.1).

As quality is the main concept for this study, returning in all the research questions, this concept is explained before continuing with answering the questions in the separate phases.

## Determining quality

According to van der Velden (2001) the concept of quality is confusing. The Dutch Council for education (1999, in van der Velden, 2001) handles quality as a 'container concept', with the meaning; assessment of the effectiveness and efficacy of education. Other authors mention meanings like, efficiency and returns, the relation between costs and benefits (Van der Velden, 2001). In educational contexts quality is often associated with effectiveness (de Kloe, 2003), the performance of the school, also called the output (average performance of students) (van der Velden, 2001). Quality and quality improvement are subjective concepts. They are related to opinions about what is good and important in education and therefore can not be expressed unambiguously (Lagerweij & Lagerweij-Voogt, 2004). There is no causal relationship between process and product in education either. Measuring quality in education is not just a case of crossing off situations against criteria. One has to take into account the cultural, social and demographic context of an educational situation.

One of the many classifications in determining quality of education is the one used by the Ministry of Educational Affairs in The Netherlands (1981, in Lagerweij & Lagerweij-Voogt, 2004). This classification consists of five aspects of quality; (1) goals and functions of education (2) content, (3) processes, (4) effects, (5) resources and conditions. The Dutch Education Inspection uses the so-called 'quality-card' for measuring quality of vocational education (Onderwijsinspectie, 2003). This classification shows levels from which one can look at quality. In this study quality is investigated from the institutional level. This classification also further specifies the classification of the Ministry of Educational Affairs. Specifications of 'resources and conditions' mentioned, are accessibility and contact with participants. Specifications of 'processes' are program-design, educational learning processes, apprenticeships and guidance. Content is specified into educational-level and finally returns can be classified under 'effects'. This leads to the following classification used as a framework to represent quality in this study:

1. goals: overall aims;
2. content: kind of skills, depending on educational level;
3. processes: apprenticeships, guidance, educational learning process, program-design;
4. effects: returns, relation cost-benefits;
5. resources and conditions; accessibility, contact with participants, industry and government, educational level of instructors, materials and machinery.

This classification will be used in several parts of the study, as explained later on in this report. Now the concept is explained and a framework of quality is chosen, the research design, used to study the quality of vocational education is explained in the next paragraph. In this paragraph methods, instruments and respondents, to be used to answer the research questions in the different phases of the study, are dealt with.

## 1.4 Research design

The first goal of this study is to expand the knowledge about vocational education within Woord en Daad and offer a basis for a network for knowledge exchange in the future. The second goal is giving partners of Woord en Daad practical guidelines to improve existing or to start new projects in vocational education. In order to achieve both of these goals, two phases can be distinguished; a conceptual phase and an empirical phase. The global design of these two phases is explained in this paragraph.

For answering the first research question; *'What are issues, trends and challenges related to quality of vocational education in developing countries from a conceptual perspective?'* in phase 1, a conceptual analysis is done. Firstly, in order to explore issues, trends and challenges from literature (answering question 1a.), a literature analysis is done in phase 1a. As explained in paragraph 1.3, the result of the literature analysis is a first prototype of guidelines, a quality-card. Asking opinions of several

experts about the validity, usefulness and relevance of the quality-card is needed to answer question 1b. As the focus group method is suitable to discuss a certain topic, this method is chosen in phase 1b. In this method a small number of carefully selected people have to be chosen. In this study, experts in the field of vocational education participated.

For answering the second research question; *‘What are issues and challenges related to the quality of vocational education in developing countries from an empirical perspective?’* empirical analysis is done. To explore the quality of vocational education useful for partner-NGO’s of Woord en Daad, the scope is restricted to partner-organizations in three countries (question and phase 2a). As most information about the partner-NGO’s is stored in documents at Woord en Daad, document-analysis is chosen. In addition to documents-analysis, analysis of real practice has a big value. This added value consists of getting first-hand information, the possibility to ask more and in-depth questions, the possibility to involve more parties and placing information better into the context. A case study investigates a phenomenon within its real-life context and deliberately covers contextual conditions (Yin, 2003). This method can be used to effectively explore different opinions about quality-related issues in practice and getting input to design practical guidelines for projects of partner-NGO’s of Woord en Daad. Question 2b. therefore will be answered in phase 2b, using the case-study method, in which one VET-project, VTC Addis Abeba in Ethiopia is studied in-dept.

In Figure 1 the two phases in this study are shown as a research model. The yellow ovals show the different activities of the study, divided over those two phases. The orange ovals are the final results of the phases altogether. The detailed design of each phase will be explained in the accessory paragraphs later on in this report.

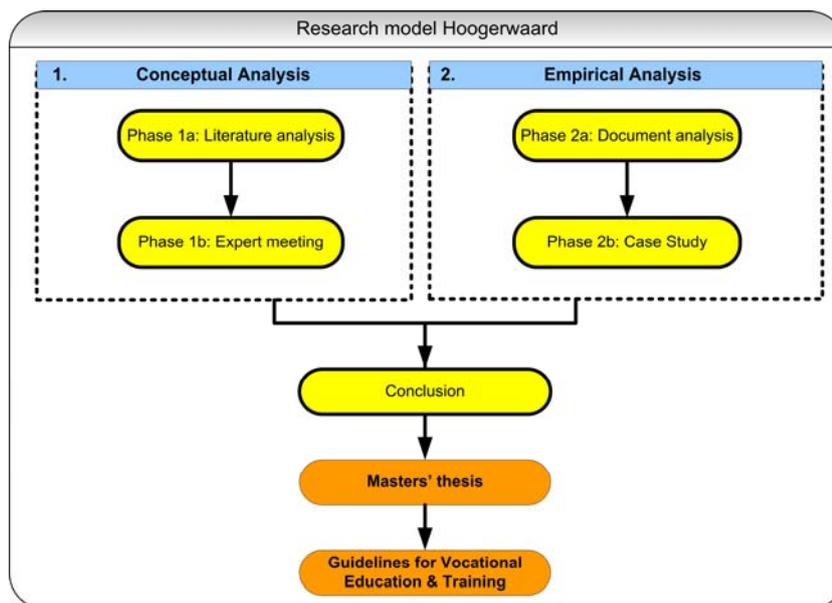


Figure 1. Research model

Firstly, in chapter two the conceptual analysis will be explained. In paragraph 2.3 and 2.4 results from the literature analysis are dealt with in which aspects like definition and main characteristics of vocational education related to goals, content, processes, effects and resources come forward. This literature analysis results in a first prototype of guidelines, a quality-card of vocational education and is discussed with a number of experts in paragraph 2.6. In the third chapter the empirical analysis is explained, with on one hand the document analysis in paragraph 3.2 and on the other hand the case study in paragraph 3.3. Both chapter two and three start with a focus in which sub-questions and a detailed design of the concerned part of the study is explained. Finally, in chapter four conclusions and forthcoming discussions will be dealt with. This at the end will lead to concrete recommendations, mainly represented in the shape of guidelines for offering and improving vocational education in developing countries.

## 2 Conceptual analysis

The first goal of this study is to further extend expertise about vocational education within Woord en Daad and to offer a basis to a network for knowledge exchange in the future. To achieve this aim the following research question will be answered, using different kinds of sources of literature; **1. What are issues, trends and challenges related to quality of vocational education in developing countries from a conceptual perspective?** To answer this question, two sub-questions are formulated, which are explained in the first paragraph. In the second paragraph of this chapter a detailed design used to answer these questions is explained. In paragraph 3, 4 and 5 results and conclusions related to sub-question a. are given and in paragraph 6 results and conclusions related to sub-question b are dealt with.

### 2.1 Focus

The first research question is divided into two sub-questions; one about issues, trends and challenges in literature and one about the opinion of experts in reaction to the results of this analysis. In order to explore different opinions, facts and meanings concerning issues, trends and challenges from a conceptual perspective, the following question will be answered;

**1a. What are issues, trends and challenges related to the quality of vocational education in developing countries in literature?**

This question will be answered through doing a literature analysis, of which the design is explained later in this report. Before answering research question 1 the concepts in the question must be made clear. Two main concepts in this question are 'quality (of education)' and 'vocational education', of which the first is already defined in paragraph 1.3. Besides determining the definition of the main concepts it is important to know the importance of these concepts. For example the World Bank discusses the use of vocational education through doing a cost-effectiveness analysis. According to her the high costs of vocational education do not counterbalance the benefits in developing countries (Bennell & Segerstrom, 1998) and therefore the World Bank does not acknowledge the importance of VET in developing countries. However, several others do acknowledge the importance of VET. Therefore the following question will be answered first;

- *What is the definition of vocational education (and training) and what is its importance in developing countries?*

To be able to achieve the goal of assisting partner-organizations of Woord en Daad in improving existing or starting new projects in vocational education, the latter literature analysis will result in a first prototype of guidelines, a quality-card. In order to increase the validity, relevance and usefulness of the quality-card, several experts in the field of vocational education in developing as well as developed countries, are asked for their opinion. In this part the following question will be answered;

**1b. What are opinions of experts about issues, trends and challenges related to the quality of vocational education in developing countries?**

This question will be answered through doing a case study, of which the design is explained later in this report.

According to the classification of quality in paragraph 1.3 the curriculum is divided into five categories; goals, content, processes, effects and resources and conditions. This classification will be used to explain issues, trends and challenges related to quality of vocational education in developing countries. In the following paragraph the design of the conceptual analysis is explained by giving the method, selection and instruments used to answer research question 1 and its sub-questions.

## 2.2 Research design

To get an answer to research question 1a. several kinds of scientific sources about vocational education with a focus on developing countries, have to be studied to get a view on the different definitions, opinions, objectives, organizations, trends, problems and quality-aspects in the field. Therefore *literature analysis* is done.

The main sources which are used to search for useful scientific literature are the University Library, e-journals, Science Direct. The main concepts used are related to the research questions posed in the latter paragraph. These are 'quality', 'vocational education', 'training', 'skills' and 'employment', all with a focus on 'developing countries' or the 'developing world'. Besides case studies and educational databases, views and opinions of different authors and important organizations in this field (like the World Bank and UNESCO) are used.

To increase the validity, relevance and usefulness of the first prototype of guidelines, the quality-card, resulting from the literature analysis, several experts in the field of vocational education in developing as well as developed countries, have to be asked for their opinion. As the focus group method is useful for discussing a certain topic with a small number of carefully selected people (Section on survey research methods, 1997), this method is used, through arranging an expert meeting. The exact design of this meeting is described in the accessory paragraph (2.6) in which question 1b is answered. In paragraph 2.3 until 2.5 the literature analysis is explained which answers question 1a. In the following paragraph the first sub-question about the definition and the importance of vocational education is answered.

## 2.3 Definition and importance of vocational education

Because vocational education is a complex field, there is no unambiguous definition. Therefore it is important to explore a suitable definition to use in this report. Besides this, the field of vocational education is a turbulent field and has several proponents and opponents. Before starting with explaining issues, trends and challenges in literature it therefore is important to study the use of vocational education for developing countries, as this complies the relevance of this study. Therefore both definition and importance are explained in this paragraph.

### 2.3.1 Definition of vocational education

The most extensive definition of vocational education and training mentioned by UNESCO-UNEVOC International centre (2003) is as follows. Vocational education and training is;

*"a comprehensive term referring to those aspects of educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life".*

From the UNESCO Convention on vocational education and training (VET), the following can be added;

*"it applies to all forms of technical and vocational education provided in educational institutions or through co-operative programs organized jointly by educational institutions at one hand, and industrial, agricultural, commercial or any other undertaking related to the world of work, on the other."*

Vocational education and training consists of two parts: vocational *education* and *training*. *Vocational training* is generally organized outside the formal schooling cycle, and thus is of greater variety both in terms of training duration and entry requirements than *Vocational education* (Gill & Fluitman, 2000). *Vocational training* is different from in-service training because it is generally organized outside of the workplace and meant for those who are seeking work. The proportion of practical

instruction in *vocational training* is higher than in *vocational education*, but lower compared to in-service training.

According to Smith & Ragan (1999, p. 3) the difference between education and training is as follows:

- education: all experiences in which people learn; mostly unplanned, incidental and informal;
- training: instructional experiences that are focused upon individuals acquiring very specific skills that they will normally apply almost immediately.

As this study mainly is meant for partner-organizations of Woord en Daad, offering both vocational education and training, from now on the term VET will be used in this report, meaning Vocational Education and Training. Now a definition is chosen, before continuing with this study, in the next paragraph the importance of VET for developing countries is explained.

### 2.3.2 Importance of VET in developing countries

Since the 'education for all'- conference in 1990 the focus in the developing world primarily lies on development of basic primary education (Little et al., 1994, in Al Heeti & Brock, 1997). However, some countries for example Ethiopia, begin to recognize the importance of VET (UNESCO, 2005). Research (Dyankoy, 1996) shows that in a lot of countries VET is seen as a way to develop human capital, which leads to social and economic growth and therefore is a vital part of the educational system. 80% of the jobs in poorer countries require some kind of vocational skills (UNESCO, 2005). One problem however, especially in developing countries, is keeping up with technological changes and deliver properly schooled employees. Another big problem in developing countries is financing. A very important discussion is whether VET is a good alternative to general education; do the benefits counterbalance the disadvantages? This discussion can be summarized into one sentence; 'to vocationalize or not to vocationalize?' and is discussed in the following.

#### Not to vocationalize!

Foster (1987) is one of the most important players in the discussion about the use of VET in developing countries. He argues that vocational education is not suitable for developing countries. According to him a lot of children in developing countries finish primary school without even being able to read or write, let alone having learned practical skills. 'Industrial or technical training in the formal educational systems probably is successful in economic developed countries, but not in developing countries', he says.

Psacharopoulos (1991) mentions several reasons why VET is not suitable for developing countries:

- *Sociological argument.* Education is being seen as a way of escaping to a modern job in the city. However, some students are forced to join vocational education because general education is being closed because of too much enrolment;
- *Technological argument.* Technological development is too unpredictable and goes too fast to predict;
- *Lifetime argument.* Even if technological development can be predicted for five or ten years ahead, the working-period of an individual lasts a lot longer. One cannot stay in one occupation his whole life, specially not in a very fast technological changing society;
- *Occupational replenishment argument.* If a new particular occupation arises, not necessarily new people have to be trained. The demand can also be met by workers with some elements of knowledge of that occupation, which could switch to this similar occupation easily;

- *Substitutability/supply-response argument.* People do not necessarily need to be formally trained at school for a certain occupation. There is substitutability between certain occupations or different educational levels within an occupation. If the labour market becomes tight for certain occupations, an economist for example could easily be trained to become an accountant or a Ph.D. in Geography can become a typist;
- *Cost argument.* The costs of vocational education are higher than those of regular education. It is doubtful if these costs counterbalance the profits.

However, Psacharopoulos (1991) does not fully reject vocational education, but pleads for reformation. He even provides some tips for people working in the field of vocational education. Firstly, social demand should be followed to take notice of needs of people. Secondly, vocational specialization should be postponed. Basic skills in reading and writing must be given priority. Thirdly, vocational education outside the formal educational system should be stimulated, because specialized vocational institutes can respond much better to the labour market than governmental planners. Companies should be stimulated to organize 'on-the-job'-training as this is the most efficient way of offering and maintaining competencies. Finally he claims the influence of the government should be minimized.

### To vocationalize!

Watson's (1994) arguments in favor of VET in developing countries claim that:

- it would transmit certain values and attitudes necessary to perform in the economy;
- it would provide specific skills for employment;
- it would help to alleviate mass unemployment;
- it would alleviate obsolete work practices and helps to improve job performance;
- it would promote a work ethic and stress the importance of practical work;
- it would help to prevent mass movements of school leavers from rural to urban areas;
- it would enable young people to acquire skills for self-employment;
- it would prepare citizens for technical and technological change;
- it would provide a necessary antidote to over-academic education.

According to UNESCO-UNEVOC International Centre (2003) VET can play an essential role in promoting economic growth and socio-economic development of countries. Individuals, families, local communities and even societies in general can benefit from this. It can help to improve incomes, provide more choices in life, help alleviate poverty, empower individuals and promote good citizenship. As the UNESCO-UNEVOC International Centre (2003) states, these factors point to the growing importance of VET, not only for the world of work, but also for responsible citizenship.

Proponents of VET emphasize the importance of VET within specialized institutions by the following. Skills other than those learned in primary education are crucial for development. These kinds of skills are not offered by companies and institutions without good government intervention. Governments in the South are aware of the need to reform VET-systems. The provision of good quality VET is needed to raise work productivity in all economic sectors.

It can be concluded that VET indeed is important and the importance is even growing. However, it must be noticed that the importance depends on the way VET is offered. Opponents therefore do not fully reject this education, but plead for reform. VET can be important for alleviating poverty and promoting economic growth through stimulating employment. This can be done through for example providing skills, ethics, and values. The main challenge is to reform VET in such a way these goals can be achieved. Governments in the South are already aware of this need for reform.

## 2.4 Main characteristics of VET

Now the importance of VET is explained in this paragraph main issues, trends and challenges in this field are explained through explaining main characteristics of VET. With this, research question 1a. *What are issues, trends and challenges related to the quality of vocational education in developing countries in literature?* will be answered. Firstly, to get an insight in the percentage of students which currently is joining VET, an overview of current enrollment is given. Besides that, as all these students are enrolled in several complex systems of VET which are hardly comparable, the complexity of the VET-sector is also explained in paragraph 2.4.1. In this paragraph it becomes clear that despite this complexity, main characteristics of VET can be distinguished. According to the classification of quality explained in paragraph 1.3, subsequently issues and trends related to goals, content, processes, effects and resources and conditions are explained in paragraph 2.4.2 until 2.4.6. After explaining main issues and trends in VET automatically main challenges to improve VET float to the surface, which are explained in paragraph 2.4.7. In the blue boxes interesting examples from practice are given, sometimes showing good, sometimes bad practices.

### 2.4.1 Enrollment-figures and complexity of the VET-sector

Globally, almost 50 million students were enrolled in VET in 2002 (UNESCO, 2005). On average one in five upper secondary school students is enrolled in VET, however this varies per region. In Africa and South-America the share is less than 20% and in West-Asia even less than 4%, while the share of Europe is 50% (see Figure 2). The number of secondary school students has risen in the last decade, and 15% in 2002 compared to 1998. As this growth was largely due to increases in general secondary students, the share of VET has declined from 23% to 19%.

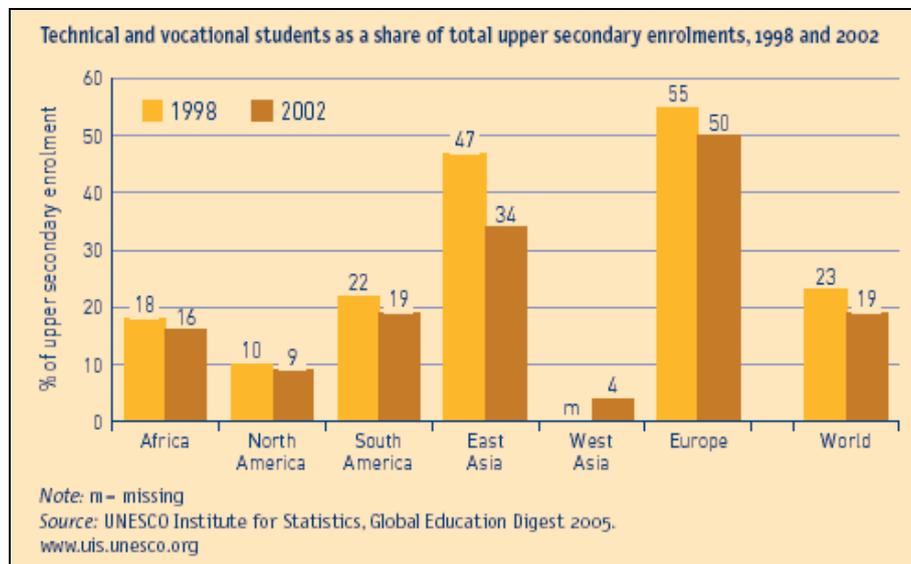


Figure 2. Enrolment-rates in VET in 1998 and 2002

All these students are enrolled in different VET-systems around the world. However, it is hardly possible to compare the large number of complex national systems of VET (Raffe, 2004). There is no single vocational education system. Systems vary with respect to deliverance, content, curriculum structure, arrangement for assessment and certification and governance. These variations are related to differences in wider policy, social and economical context of the country like stage of economic development, structure of the labour market, institutional infrastructure, social policy, family structure, demographic structure, available resources and roles, size and

homogeneity of the educational system. Formerly it is tried to import foreign education models into the developing world. Western models were implemented without paying attention to the relevance, efficiency and feasibility in a certain context which caused a remainder of white collar jobs (UNESCO, 2005, Selvartham, 1988). Despite the diversity of the VET-field, related to quality, main issues, trends and challenges can be identified, which are explained in the next sub-paragraphs. Subsequently issues and trends related to goals, content, processes, effects and resources and conditions of VET are explained.

#### 2.4.2 Goals

A lot of different authors write about the objectives of VET. In the following an overview is given of the main objectives mentioned. Two main categories of objectives can be distinguished; economic objectives and social/cultural objectives.

##### *Economic objectives:*

- provide or upgrade (technological) skills and knowledge (Psacharopoulos, 1997, Ishumi, 1988) at middle level (Gill & Fluitman, 2000);
- reduce or prevent (youth) unemployment (Gill & Fluitman, 2000, Psacharopoulos, 1997, Ishumi, 1988), reduce poverty (Psacharopoulos, 1997) and help the unemployed to find a job (Gill & Fluitman, 2000), get a more equitable distribution of income (Wieringen & Atwell, 1999). Therefore taking care of a good connection between supply and demand is necessary (Ziderman, 1997);

##### *Social/cultural objectives:*

- develop values and attitudes for performing certain tasks, promote a work ethic and stress the importance of application of practical skills in practical or manual work (Ishumi, 1988, Ziderman, 1997), offer opportunities to learn to be an effective part in workplace and elsewhere in society and exercise the rights and duties of democratic citizenship, even outside the world of work. This enables students to participate in the life of society (Wieringen & Atwell, 1999);
- prevent a mass movement of school-leavers from rural to urban areas (Ishumi, 1988) and to keep students off the streets or temporarily out of labour market (Gill & Fluitman, 2000).

Related to these categories of goals two perspectives can be distinguished; an *economic perspective* and a *social* perspective. In literature especially the economic perspective gets attention, in which the World Bank plays a big role. The social perspective is under-exposed, it mainly comes forward as a short reaction to the economic perspective.

##### *Economic perspective*

The World Bank leads the discussion against vocational education in the developing world from an *economic perspective*. She claims VET to have higher costs than regular academic schooling (Bennell & Segerstrom, 1998). Because of this reason the World Bank wants VET to be mainly financed and organized by local individuals, companies or private educational institutions instead of by the government. VET needs to be reformed in a way that supply responds to the needs from the labour market, training is organized at the workplace, organized by the private sector with a small supporting role of the government. Empirical evidence shows that costs of vocational education are quite higher than those of regular education, while benefits are comparable (Psacharopoulos, 1987). Specialized teachers, furniture and equipment which are needed for vocational education are expensive. Besides this benefits of VET are hard to

determine. Incomes of graduates could be used because these are relatively representative for their productivity.

Critics say only a small part of the population can profit in the *economic perspective* of the World Bank. The most important group of the population is neglected; the disadvantaged, which form the majority of the population in developing countries. The fact that deep-rooted problems exist in the public sector of VET is true, but according to Bennell & Segerstrom (1998) it is exaggerated and generalized by the World Bank. Besides the absence of rates of return the World Bank does not give a context description or significant proof of the quality of workplace-based training. Powell (2001) also goes into this economic motive. According to him the World Bank on one hand wants countries to participate in projects (participatory approach), but on the other hand she likes to see measurable results. For her it is an art to lead the countries on the path she made up for them.

### *Social/cultural perspective*

In literature not much is said about the social perspective in VET. When this perspective is mentioned, it mostly comes forwards as a defense against the economic perspective. An example is Ziderman (1997), who also stresses the importance of economics in VET. He distinguishes external and internal efficiency. External efficiency is the relevancy of schooling to labour market demands. Internal efficiency is the efficiency of materials and costs. However, according to him the importance of economic aspects in VET does not stand on its own. It is complementary to the individual importance like personal and career development of young people, the *social perspective*. Ziderman (1997) recognizes the costs of VET as a negative aspect of this sector. But he does not agree with the World Bank perspective and claims that VET certainly can be a success, but under certain circumstances: depending on the availability or growth of employment. It is important to find a match between vocational skills and available jobs. Ziderman (1997) mentions three aspects which are important for the success of VET:

1. Economic context: In dynamic and growing economies, VET always is cost-effective, sometimes even more than academic education. Next to effective use of resources (for example through establishing cost-effective bigger schools), the availability of vacancies plays an important role in this respect;
2. Appropriate goals: Both social as well as economic goals are important;
3. Responsiveness and market orientation: Being flexible and responsive to the changing demand of skills, which means keeping contacts with employers, involve these in curriculum planning, internships and vocational guidance, follow-up of graduates, flexible curriculum and keep up-to-date with changes in labour market.

The economic perspective seems to give strong arguments against VET. However, Psacharopoulos (1987), which is critical against VET from the economic perspective admits the logic that VET is necessary for a modernizing economy. Even some proponents of the social/cultural perspective (for example Ziderman, 1997) do also pay attention to the economic side of VET. Still a lot of VET-projects are evaluated negatively. According to him causes of this can be reduced to two important aspects about the organization of VET. Firstly, education does not necessarily have to be provided in schools. Informal education is relevant and costs of the training process are less. Secondly, students are forced to join VET because academic education is limited. There is a contradiction between the wishes of the students and the type of schooling they are offered. From this can be concluded that VET indeed can be useful, but reform is needed. A second conclusion from this paragraph is that the goals of VET also influence the content to be taught, the process to be used, the effects to be achieved and the resources needed in VET. Therefore in the next paragraphs successively content, process, effects and resources and conditions are explained.

### 2.4.3 Content

In paragraph 2.3.2 the discussion about whether 'to vocationalize or not' was summarized. It appears that the main question in VET is not whether to vocationalize or not, but in what way it is offered best. Related to 'content' the prominent discussion theme is about the degree of vocationalization. This is the amount of general education offering general skills in relation to specific education offering specific vocational skills. In the following this discussion is dealt with.

#### *General versus specific education (degree of vocationalization)*

According to Al Heeti & Brock (1997) there is a gap between general and vocational education which has created two roads. A formal, academic road which often has priority and leads to higher administrative and professional positions. On the other side, there is less support for the vocational road. This again leads to a bigger tendency in the direction of the formal road (Psacharopoulos, 1987). But secondary schools are not able to take care of all those youngsters. Besides that also the labour market is not able to take care of the whole output of academic education. Too much stress is laid on theory instead of on practice, which can be called the 'skills gap' (Psacharopoulos, 1987).

Bennell & Segerstrom (1998) distinguish three kinds of skills in VET; basic skills for daily life, broad vocational skills, specific job-related skills. Originally VET was meant to offer students a certain package of skills that on one hand answers basic needs and on the other hand is suitable for practicing a certain job. Research in developing countries (Selvartham, 1988) has shown that VET often focused too narrowly on one occupation. Selvartham (1988) is warning for too early 'vocationalization' as children could physically, mentally and socially be too immature to perform certain tasks, to

ⓘ *An example of general education combined with vocational education can be found in Botswana, Ghana and Kenia (UNESCO, 2005). Instead of having a separate stream of specialized schools, these countries have established 'vocationalized' secondary education successfully.*

understand economic context or to take responsibility. He therefore recommends broad general education with a combination of practical subjects, instead of early specialization in a certain area. This kind of education contains all round training, reduces the gap between VET and general education, is cost-effective and gives individuals an occupational basis as well as the possibility to maintain themselves in a technological and industrial world. An example of good practice concerning this kind of education is given in the blue box.

Education should focus more on communication skills (speaking and writing) and numeracy, which are applicable to organized as well as non-organized sectors of the economy (a social perspective, with an economic final purpose). This even is applicable to the agricultural sector, where mechanization and technical growth is taking place. Employees with broad education quickly can adjust their skills to industrial changes. 15 a 30 per cent of the courses are aimed at practical themes like agriculture and management. This distinction between specific practical subjects and broad general education can also be seen in the two roads mentioned by Van Wieringen and Atwell (1999). The first road is training for initial employment which contains basic knowledge, specifically related to an occupation. The second road is training for future career development teaching more general skills to be better able to cope with change in the labour market. Brandsma (1999) also stresses the importance of general skills by claiming that preparing young people for working life (which includes social, communication skills, trainability and flexibility) is crucial to the recruitment of employees. Through devoting more time to key qualifications and less to the acquisition of specific knowledge, problems in linking-up work and education could be reduced. Key qualifications, or core competencies are knowledge, insight, skills and attitudes that are part of the core of an occupation with the possibility to transfer to other jobs within that occupation and of innovations within that occupation, which

contribute to the development of a person's occupational competence and facilitate transitions within the career (van Zolingen e.a., 1999, p. 118). These qualifications enable new employees to react flexibly and effectively to changes in work and working context (van Zolingen, Blokhuis, Streumer & Nijhof, 1999). The interest in core competencies arises from the recognition that occupational demands of the modern workplace can no longer be met through specialized occupational knowledge and skills alone (Institute of Personnel and Development, 1998). Workers require a set of core skills or competencies which do not become outdated and which underpin flexibility, adaptability and transferability. But as this discussion arose in the developed world it might not (yet) be applicable there.

Many authors stress the importance of broad general education within VET to be able to respond to the constantly changing labour market. However in VET one has to provide skilled workers instead of academic students like in general education. Broad subjects therefore should not be offered at cost of, but in addition to specific practical subjects. After discussing the kind of skills to be taught, the following question arises; What kind of training suits these skills best and where should it be given? This is dealt with in the next paragraph, discussing different kind of processes, globally but also within certain developing countries.

#### 2.4.4 Processes: systems and strategies

The results from literature concerning processes in VET can be divided into two levels; VET-systems on macro-level and VET-strategies on meso-level. First VET-systems in different countries are compared out of which four main systems can be distinguished globally. Within these systems, choices concerning the execution of the VET-process, the so-called strategies have to be made on meso-level. Therefore secondly strategies will be dealt with in which the way VET-processes have to be designed within a certain country or institution is discussed.

##### VET-systems

Comparison between educational systems shows different types of provision in upper secondary education in different countries. Roughly these can be divided into two categories. The first one is general education programs that prepare students for tertiary level education. The second is vocational education programs for qualifications aimed at both professional activity and further education. In many countries, these types of programme are organized separately, so the student must opt for one branch or the other. In other countries, both general and vocational programs are offered,

ⓘ *An example of a non-uniform and non-homogeneous societal subsystem is the VET-system in the Netherlands (see figure 3, appendix 1). About six segments can be distinguished, each with its own objectives, responsibilities and actors (Hovels, 1999):*

- *vocational education, mostly school-based;*
- *apprenticeship system;*
- *employment policies;*
- *sector specific training;*
- *in-company training;*
- *free-market courses.*

sometimes within the same institution. Several countries offer post-secondary education, which is not regarded as tertiary-level provision. The students concerned generally have completed a course at upper secondary level without being required to hold a formal upper secondary qualification in order to enroll. Courses in post-secondary education generally last between six months and two years, and are frequently offered on a part-time basis. Some of them give access to the labour market, others to tertiary education. Admission to tertiary education is theoretically possible from the age of 18 or 19 onwards depending on the country. Students are often free to study for a greater number of years or on a part-time basis. At this level of education, all countries offer broadly theoretical programs providing students with the qualifications needed to secure access to

professions calling for high skills, or to advanced research programs at doctoral level. Some countries also offer more vocational trainings at this level. The segmented system in The Netherlands (Appendix 1) is an example to show that VET is not a uniform and homogeneous societal subsystem. This example can also be seen in the blue box next to this paragraph.

Facilities in VET vary from a well organized structure to a few evening courses without qualification. Research (Dyankoy, 1996) shows there is a growth in training facilities. While in developing countries there are no or a few chaotic part-time education options, in industrialized countries an apprentice-system is used and short courses are offered. Al Heeti & Brock (1997) mention the possibility of using new methods of education as a challenge for the future, like distance-education, informal or part-time education.

**Main systems identified**

Despite differences in VET-systems throughout the world, Ishumi (1988) recognizes four main VET-systems globally. These are explained in Table 1.

Table 1. VET-systems identified globally

VET-systems identified globally (Ishumi, 1988)
<p><i>1. Parallel vocationalized system</i></p> <p>Vocational education structures are offered parallel to traditional formal academic education. Areas in which subjects are given are, for example, agriculture, technical design and entrepreneurship. Psacharopoulos (1987) also mentions this system in which traditional academic secondary education is offered next to secondary pure vocational education. Caillods (2004) mentions a more broad classification of VET with on one hand VET offered in separate technical or vocational schools.</p> <p>This kind of education is aimed at educating manpower (with average skills) for socio-economic growth. A disadvantage of this kind of education is that it is often seen as second-hand, only meant for less capable students.</p>
<p><i>2. Diversification of the total system</i></p> <p>Re-orientation and restructuring of the national education system in the direction of vocational orientation in this system. Theoretical education is being supplemented with practical fieldwork in agricultural projects or other areas. An example is Tanzania where education is organized in four categories: agricultural, technical, commercial and domestic secondary schools. Psacharopoulos (1987) mentions comprehensive/ diversified schools with academic education and pre-vocational-subjects, next to earlier mentioned subjects in agriculture, trade or industrial arts. The second category of systems of Caillods (2004) is VET offered in comprehensive schools with full- or part-time vocational courses together with general and academic subjects.</p> <p>This kind of education is aimed at the integration of schooling and work, less emphasizing elite scholastic knowledge, let students get acquainted with the practical application of theoretical knowledge, showing real working life and try to focus students' attitudes on society (so called socio-ideological orientation).</p>
<p><i>3. Vocationalization of a part of the core of the curriculum</i></p> <p>This system incorporates introducing and formalizing vocational subjects as an obligatory part of the curriculum. The vocational subjects are equally in weight and importance with other parts of the curriculum.</p> <p>This kind of education is aimed at influencing attitudes and interests of students to acquire talents and to develop skills which are necessary for their future in the labour market.</p>

4. Informal systems

Cheap informal training centers, besides formal vocational schools parallel to academic schools. The success of this system is owed to the variation and diversity of specializations and enrollments. But there are also some disadvantages to this informal system. Firstly, it is often seen as third-rang education and therefore traditional formal education is preferable. Secondly, the relation of education-production in industry is often hanging over to production. Because of unsure and instable subsidies of government or other organizations, it does not countervail against formal education.

This kind of education aims to offer an alternative next to the existing formal system for young people who are not able to join regular secondary education. Education and training are combined with production, which helps to meet the costs. Young people are provided with skills to work independently, in their own agricultural surroundings. Values, attitudes and skills of young people, that can have a positive influence on their environment, are cultivated.

Psacharopoulos (1987) mentions another kind of system outside the school system; on-the-job-training. Caillods (2004) also mentions VET through apprenticeships as his third option, thus on-the-job practical training by firms combined with a few days at school, learning basic subjects.

According to Psacharopoulos (1987) on the one hand the economic effect, the improvement of jobs, the generation of income and thus the returns of vocational education are important in choosing the right strategy. On the other hand also political and social considerations play an important part in this, especially in developing countries. Some countries combine a school-based model with the apprenticeship-model, because according to Caillods (2004) schools are better suited to provide broad general knowledge and companies are better suited to provide specialized and practical training. The relationship between the classifications of the three authors mentioned above can also be seen in Table 2.

Table 2. Relationship different classifications of systems of vocational education

Ishumi (1988)	Psacharopoulos (1987)	Caillods (2004)
Parallel vocationalized system	traditional academic secondary education	
	Secondary pure vocational education	VET in separate vocational schools
Diversified system	Comprehensive/ diversified schools	VET in comprehensive schools
Vocationalized part of the core of the curriculum		
Informal systems	On-the-job training	VET through apprenticeships

Besides different systems in different countries around the world, there are also differences in VET-strategies within countries. In the following part main discussions related to the way VET-processes have to be designed within a country are dealt with.

**VET-strategies**

According to the UNESCO-UNEVOC International Centre (2003) some of the main parameters which determine the being of VET are;

- Both theoretical and practical learning can be important;
- Skills can be acquired at school, specialized institutions or at the workplace;
- VET can be part of secondary, post-secondary and higher education;
- VET can be formally or informally organized;
- VET can be for beginners as well as for further training for the workforce.

This list of parameters shows that there are many kinds of ways to organize the practice of VET within a country or even within a certain organization of project, and therefore also a lot of choices to be made. Some of these choices like on- or Off-the-job, formal or informal are discussed in the following alinea's.

The discussion about where VET should be given and in what way it should be offered also depends on the characteristics of the target group it is meant for. Two main groups can be distinguished. On one hand there is a governmental stream in vocational education with students following the regular line of education, on other hand there is a stream mostly offered by NGO's meant for academically less able or less gifted students (Psacharopoulos, 1997, Gill & Fluitman, 2000), for disadvantaged (Wieringen & Atwell, 1999), for school-leavers (Gill & Fluitman, 2000), for already employed workers or adults (Gill & Fluitman, 2000, Wieringen & Atwell, 1999).

### *On- or off-the-job? In institutions or at the workplace?*

Vocational research has been concerned with how vocational competencies can best be developed through varying combinations of off-the-job training in a vocational centre, near-the-job training in a simulated work environment, on-the-job training and real productive work (Institute of Personnel and Development, 1998). Different countries give different weight to these elements, depending on the level of skill developed in the school system, the nature of the vocational training system and the distribution of responsibilities between the state and the employer for skill formation. The

① *In the majority of investigated New Industrialized Countries (Bennell & Segerstrom, 1998) the quality of enterprise-based training is very low, which is in line with low productivity. Companies in South Korea (Bennell & Segerstrom, 1998) even turned out not to be willing to educate their employees (thus public schools keep on to be the leaders in VET).*

relationship between regular secondary education and vocational education is an area of controversy between policy makers, economists, didactics, especially in developing countries (Ziderman, 1997). The debate about practical education in primary and secondary education still is a hot issue in several developing countries (King & Martin, 2002). Also the differences between on-the-job and off-the-job learning environments continue to be the subject of much debate (Harris, Simons, Willis & Carden, 2003).

Bennell & Segerstrom (1998) distinguish the following kinds of training; school-based training, pre-employment occupational training

(college-based), which lasts a few years and workplace-based (formal + informal) of a few days. According to the World Bank the best way to implement VET is enterprise- or employer-based. Psacharopoulos (1997) claims that VET can effectively be provided when it is delinked from and offered outside the formal school system. According to him it must be offered in specialized VTC's or on-the-job. He thinks vocationalization of regular education will fail or be boycotted. It will be better to encourage private financing and firm-based training. Ishumi (1992) claims that VET should be offered exclusively in Vocational Training Centers (VTC's) and should not take place in regular secondary schools either in industry. According to him VET and regular education should be separated, because he thinks, as a result from his experience in Tanzania VET does not belong in regular education.

However school-based learning is often perceived as inadequate for VET (Nieuwenhuis, 1999 in Brandsma, 1999), work-based learning is not by definition a good alternative to school-based learning. Some examples are shown in the blue box next to this text. The fact that vocational education should be enterprise-based and demand-driven, does not automatically mean that all trainings should be completely enterprise-based or that financing should be handed over to the private sector completely. Employer-based training may be a good cost-effective alternative to pre-employment training like VET (low training costs, up-to-date machines, connection between supply and demand), but Ziderman (1997) also claims that companies are not always able to fulfill their training role adequately. There are concerns about private financing and quality

of privately offered vocational education, as it is difficult to keep academic standards. The danger is that less privileged students are paying relatively much money for education of bad quality. Therefore a good labour market-policy to maintain the quality of education is needed. Another aspect is that the primary concern of the formal training institution is to train the individual for industry as a whole, while the primary concern of business is to train for economic development of the business enterprise, thus production is given priority and jobs do not always provide learning opportunities. Besides that companies in developing countries are often too small, underdeveloped and have limited managing qualities. Workplace based training seems to stagnate in a lot of developing countries (Bennell & Segerstrom, 1998).

In Japan, the acquisition of vocational skills and competencies is embedded in a process of company socialization. In some other countries strong emphasis is put on communicative and participatory competencies linked to democratization inside firms. In the Netherlands, change is underway in pushing back some areas of competence development from the workplace to the classroom, where it is considered best to be acquired. However, in most of the industrialized as well as developing countries, on-the-job training is the dominant kind of training. On the job training (OJT) can be defined as intentional, structured and organized on the job learning (van Wieringen & Atwell, 1999). This varies from types like industrial schools to dual systems. However, no clear view on the best method can be gained as there is no comparable data of types of training available. Research of Harris, e.a. (2003) does show that a combination of on- and off-the-job learning is wanted. Germany with its 'dual' vocational education system, which is being viewed as a model for other countries is an example that this can be a successful method.

#### *Formal, non-formal or informal?*

Then another thing is the choice between formal, informal or non-formal education. *Formal learning* occurs within an organized structured context: in education as well as in company training. The context is designated as a learning one. *Non formal learning* is embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element. It encompasses semi-structured learning, accidental learning resulting from daily life. *Informal learning* results from daily life, but is highly contextualized. It is part of non-formal learning, often related to experiential learning.

① *In Cote d'Ivoire two systems of acquiring vocational and technical education can be distinguished (Grootaert, 1990). A formal system, consisting of different types of public and private schools and an alternative, very practical oriented, informal system of full-time apprenticeships.*

Two VET-systems can be recognized in Cote d'Ivoire, a formal and an informal system (Grootaert, 1990) (see the blue box next to this paragraph). In the formal system (public and private), students enrol in one of several secondary and post-secondary curricula in institutes which are integrated in the overall educational structure. The informal system provides an alternative to the formal VET-system and consists of apprenticeships, whereby young adults work full time in a small

enterprise at zero cash wages while learning a trade. Their training is limited in scope but very practically oriented. Formal and informal VET are not substitutes, but prepare people for different careers. In many other countries, formal and informal VET-systems coexist, with the latter typically being regarded as inferior and not worthy of government support. Such opinions may be based on an erroneous assumption that the two systems are alternative ways to the same goal, and overlook the structure of the labour market, especially the distinction between the formal and informal sector.

*Public or private?*

Woord en Daad only works with non-governmental organizations (NGO's), thus VET offered privately. But are these organizations the best providers of VET? What is the role of the government? Should one of them offer VET or should they cooperate? In the following these questions are dealt with.

Public VET-institutions have traditionally been slow at responding to market demand, providing skills and training largely focused on a formal employment outcome even in countries where most of the new jobs are created in the informal economy (Working group for international cooperation in skills development, 2004). Private training providers, including informal traditional apprenticeships, enterprise-based training, NGO-training and private institutions are generally more responsive to market demand and offer more flexible training modalities. It would be difficult to change the role of formal public VET and bring reform to these systems. First, it should be remembered that in many countries public formal training is in crisis anyway (crisis of quality, of relevance, of equity and of access). Secondly, the different types of training required for formal or informal employment make it very difficult for a public training centre to simultaneously act as a provider of both.

Non-governmental organizations (NGO's) play an increasing role in providing learning opportunities by providing skills to school dropouts, disadvantaged groups, and the poor. The role of NGO's can be grouped into three main types of services: (1) support for traditional apprenticeships in the informal sector, (2) training as part of a larger package of services to vulnerable populations, generally linked to micro-credit programs, and (3) direct provision of training services to school dropouts. However, if there is considerable reliance on NGO's as providers or change agents of vocational education, external financing might cause problems for the sustainability of VET. For example donors' priorities can shift, which causes them to pull out from the NGO. Secondly, the use of NGO's does not mean that interventions are necessarily grounded in local communities and made sustainable through community commitment and resources (Working group for international cooperation in skills development, 2004).

As can be concluded from this subparagraph despite big differences in VET-systems in different countries, they can be classified into four main systems globally. Most important is that the system implemented is appropriate within the context and clear choices are made about implementing a certain system. Within these different systems around the world, there are several discussions about VET-strategies within countries. These discussions concern the way VET-processes have to be designed within a certain country. Three main issues were discussed; on- or off-the-job education, formal or non-formal and public or private providence of VET out of which the following could be concluded. A balance is needed between on-the-job practice and off-the-job theory and practice. Most authors agree that VET should not be given in regular education. But disadvantages of workplace-based education do not have to be ignored. Besides that it does not mean that integration of practical subjects into regular education can not be a good solution, which is also discussed in the next paragraph. Formal and non-formal education should co-exist in VET. Formal education, which is often preferred because of the accredited certificates, is meant for another kind of career than non-formal education with short practical training especially for dropouts. Through the coexisting of these two kinds of VET needs of labour market are met, as labour market also has a distinction between a formal and an informal sector. It is even the case that most new jobs are created in the latter. A combination or close cooperation of NGO's and government offering VET is preferred. Private institutions tend to be more responsive to labour market, but can not give a guarantee for quality and sustainability, for example due to financing difficulties. Therefore government needs cooperate with the private sector and stimulate NGO's in offering VET through providing regulations, policy and financing.

## 2.4.5

**Effects**

① *Quality assurance helps to ensure that the system allows flexibility, that students can move from one job to another, that vocational guidance is available, that the learner benefits from practical and theoretical elements and so on. This can cause additional costs, but can be justified by the long-term benefits for society and economy (UNESCO-UNEVOC International Centre, 2003).*

Besides in goals, content and processes quality of vocational education is also visible in output and effects. Many governments, especially in developing countries, claim education to be an important part of their development strategy, which on one hand educates professional employees for industrial development and on the other hand is engaged in youth unemployment. However, there is no provable relationship between enrolment in VET and economic growth (Ziderman, 1997). VET provides training, but it does not guarantee a job on itself (UNESCO, 2005). If the labour market

does not have space for students, every training program is useless, how expensive and extended it might be. Therefore quality assurance is one of the main important aspects concerning the effects of VET (see the blue box above). Another important factor, which contributes to the success of VET, is the relationship with labour market; the degree of meeting their demands. In general, according to Lewin (1993) VET can play a central role in the development of flexible skills for a continuously changing labour market. But in research (Al Heeti & Brock, 1997) VET turns out to be undervalued by employers because it does not meet labour market needs, which is caused by bad contacts with industry. Therefore under the first heading the responsiveness to needs of labour market is dealt with. Foster (1987) argues that whether education is vocational or not, does not depend on the kind of education, but on the chances it offers on the labour market. Academic education could even be more vocational than vocational education. Therefore the integration into labour market after graduation will be dealt with under the second heading in this paragraph.

*Responsiveness to needs of labour market*

A limitation of VET according to Selvartham (1988) is that school was represented as bookish and was being separated from needs and problems in daily life. A gap arose between the working field and school, which should be closely connected to each other. Too much stress is laid on theory instead of on practice, which can be called the 'skills gap' (Psacharopoulos, 1987). The labour market is not able to take care of the whole output of academic education. In research of Al Heeti & Brock (1997) the content of education also does not correspond to needed skills. One has to take account of needed skills in the in the labour market as well as in the culture. This is why essential technical and vocational skills are underdeveloped, which does not do good the quality of graduates and thus the status of VET. Another limitation is that however it is important that VET becomes closer connected to labour market to be able to respond to changes (Ziderman, 1997), in many developing countries cooperation between industry and VET has proven to be difficult to establish. On one hand this is caused by a lack of incentives, but on the other hand it is beyond their capacity because of a young industrial infrastructure. Because of these difficulties in the connection between VET-institutions and labour market a lot of experts and policy makers claim that training should take place at the workplace.

*Integration into labour market*

It appears that more children that attended primary school, especially in sub-Saharan Africa and South Asia have less to no opportunity in finding a job or attending further education. On the other hand Psacharopoulos (1987) mentions the trend that students

① *One of the biggest mistakes in Arabic education, according to Akil (1987, in Al Heeti & Brock, 1997) is that those who do not succeed in general education have to enter VET. This causes an enrollment of less potential and low motivated students, which makes proper integration into labour market more difficult.*

often do not chose jobs for which they are educated. In Arabic education this could be caused by the 'marginalization' problem, mentioned by Al Heeti & Brock (1997). VET is limited in scope, one is not free to select suitable students and VET mainly is for low-level students. This also can be seen in the blue box next to this paragraph. Therefore UNESCO (2005) recommends a focus on the integration of practical education into regular education, at primary as well as at secondary level, which responds to the demand from labour market. Guidance is an aspect which can stimulate the integration of youngsters into the labour market.

Through guidance and support students are provided with general competencies which are necessary to handle continuous development as a student, employee and civilian (Dyankoy, 1996). Training- and job centers must cooperate closely through exchanging information about vacancies. Guidance is experienced very important by many countries. Vocational guidance can also be used to stress the potential of vocational education. Positive attention in the media can also work stimulating for this field (Al Heeti & Brock, 1997).

As can be concluded from this part is that the effect of VET mainly is measured by the number of trainees effectively working on a job. But therefore space on market is needed. Responsiveness to labour market and integration of youth into the labour market can be improved through cooperation with industry and guidance of students. However, one can have such a good strategy, content or process to offer, but if one has no money or instructors this is all useless. Therefore the next part discusses resources and conditions needed in offering VET.

#### 2.4.6 Resources and conditions

The results from literature concerning resources and conditions of VET show five main aspects concerning resources and conditions; three aspects related to resources and two related to conditions. Resources are needed to make the VET-process run smoothly and to teach students adequately. Conditions on the other hand are necessary to achieve the goals of VET properly.

##### Resources

Three main issues from literature can be shared under resources. At first the learning environment as this is the place learning takes place. Secondly resources within this environment like teachers, materials and equipment are important. Finally (inter)national cooperation is mentioned as a way to exchange resources and knowledge.

##### *Learning environment*

When discussing quality of VET the concept learning environment should be included as it is one of the resources needed in offering VET. However, there appeared to be no literature found about learning environments in developing countries specifically. Therefore only aspects of a good learning environment from literature about vocational education in general are mentioned.

According to Zijlstra (2002) a good learning environment has to fulfill the following aspects:

- student central: analysis of prior knowledge;
- knowledge central: clarity about what has to be learned and why;
- assessment central: assessment to guard the learning process;
- context central: safe environment, connection with life outside school.

Simons (2000 in Zijlstra, 2002) mentions the following characteristics of a good learning environment; complete and rich, realistic, models and coaching, asks for activity, navigation slowly handed over to students, practice, develops learning attitudes and learning skills in order to let students learn self-steered and experience-directed and combines that with reflection.

For learning at the workplace (with the workplace as learning environment) these aspects might differ from school settings. The following aspects are important to show the learning potential of the workplace according to Onstenk (1999, in Koot & den Dekker, 1999):

- Feedback, explanation;
- Stimulation from colleagues or boss;
- Information, guides, simulation;
- Tutors;
- Physical workplace-characteristics.

#### *Need for up-to-date resources (financing, materials, teachers, infrastructure)*

① *In Korea VET causes economic growth. In this case staying up-to-date with technological changes turns out to be very important to keep curricula relevant.*

Because of inadequate and old *resources* the output of vocational education is often rejected by industry. It is difficult and too expensive to keep materials up-to-date and keep abreast with the current changes, so students are not prepared to labour market very well (Psacharopoulos, 1987). A difficult point, especially in Africa, is spreading available resources over the whole population, including lots of unemployed, illiterates and

underprivileged people (Psacharopoulos, 1987). A 'rolling reform'-model is needed to import materials, machinery and experts on one hand and to create sources within the country to maintain these on the other hand (Al Heeti & Brock, 1997). Due to this a dynamic, constantly changing and flexible development should be created. In the blue box an example of the importance of staying up-to-date in order to keep education relevant and cause economic growth is shown.

Besides materials also *teachers* need to stay up-to-date. Different patterns can be recognized in professionalizing-demands of teachers and trainers in VET (Dyankoy, 1996). In general teachers should have a university degree together with some kind of teacher training. Qualification of personnel differs very much between industrialized and developing countries. In general the latter suffer from a shortage of educated personnel often without having needed practical experience (Craig, Fluitman in Powell, 2001). According to Dyankoy (1996) mobility and diversification of skills of personnel are central aspects.

Craig (in Powell, 2001) also mentions *organizational structures* or the way in which projects are managed as an important aspect in VET. Besides that Craig and Fluitman (in Powell, 2001) mention *infrastructure* (local, physical and political) as an important aspect.

*Need to exploit international cooperation*

**i** *Thailand maintains a relationship with South-Asian countries through exchanging information and materials, joining collective research and exchanging instructors and trainees. The country also has an exchanging-program with students from Japan, Korea and the USA.*

Many countries acknowledge the importance of international cooperation (Dyankoy, 1996). Different kinds of bilateral and regional cooperation can be recognized (an example is described in the blue box next to this paragraph). Sometimes developing countries learn more from each others experiences than from help from developed countries. It is important to give countries self-ownership in projects. Successful projects involve local personnel in initiating and managing the process and use local developed materials, although aid agencies still play a big role. As mentioned earlier in this report, it is also very important to

take into account and understand the context (culture, economy, political environment) when implementing VET. Besides this one has to have eye for the future. 'Long-term-thinking' is very important, because many projects, although there successful implementation appear not to be sustainable in the long run (Powell, 2001).

**Conditions**

Two main issues from literature can be shared under conditions. Firstly equal accessibility is important to make sure VET is available for everyone. Besides this, status of VET still is mentioned as very low in many developing countries. In order to develop this sector this status has to be improved.

*Need for equal accessibility*

Although a lot of countries have provided women legal access to education, this is not always put into practice (Dyankoy, 1996). Access is often been denied, women are expected to be at home (UNESCO-UNEVOC International Centre, 2003). In industrialized countries introducing women in techniques and labour market is getting usual. For developing countries it is a rather new phenomena, sometimes even in an experimental stage (an example of good practice is described in the blue box next to this paragraph). According to UNESCO-UNEVOC International Centre (2003) another constraint in accessibility of VET is the fact that it is often delivered only in official, mainstream languages. Therefore it is not accessible to everyone. Besides this high tuition fees cause restrictions in access.

**i** *In India 104 out of 900 institutes are exclusively for women, suitable for 23 professions. In Thailand training for women as qualified employees in for example agriculture is increasing continuously. Some countries however (Jordan, Greece, Cyprus, Italy) still see VET as mainly for boys.*

*Status has to be improved*

Students tend to prefer academic education rather than vocational education (Psacharopoulos, 1987). This can be caused by the low status of VET. According to UNESCO-UNEVOC International Centre (2003) the low status is caused by a lack of quality and the relation with the job-market. It is clear that quality affects the value and success of education programs. Selvartham (1988) claims that VET is known as education for drop-outs and leads to low paid jobs and bad working conditions. Al Heeti & Brock (1997) also deal with this issue of rejection. High-quality VET leads to a higher status and improved attractiveness and also guarantees a link between VET and the labour market. Another thing which could improve status is offering more opportunities for graduates of vocational education to move to higher education. Though this labour opportunities could also improve (Al Heeti & Brock, 1997). Despite

the fact that VET in the first place often is seen as second-hand education, it is more and more recognized as an essential factor in eradicating poverty and is developing during the globalization (UNESCO, 2005). One of the countries that have renewed interest in VET is Ethiopia.

The headings of this sub-paragraph show the issues related to resources and conditions in VET clearly. Up-to-date resources are needed to adjust to the changing labour market and its demands continuously and for which (inter)national cooperation can be very useful. Equal accessibility for everyone needs to be stressed as this often is not achieved yet. Status needs to be improved by raising quality, opening options for further study and establish a better adjustment to the labour market.

While discussing goals, content, processes, effects and resources and conditions a lot of constraints and lacks of the VET-sector float to the surface which lead to challenges for the future. In the last part of this paragraph the main challenges are mentioned and are proven to be worth the effort.

#### 2.4.7 Future challenges

Despite several weaknesses, VET indeed makes a difference in the development of societies. Therefore in this paragraph after mentioning some promising projects, main challenges for the future development of VET in developing countries are given.

##### Factors of success

Literature about VET in developing countries mostly focuses on problems and constraints in this sector. However, some examples of countries where VET is proven to be successful have been found, like Botswana, Kenya en Tanzania (Ishumi, 1990). In the boxes in the latter sub-paragraph already some examples of good practice were given. In the box below again 5 factors of success of a VET-situation in Mexico are given.

① *5 factors of success of a good working VET-system (Colegio Nacional de Educacion Profesional Tecnica: CONALEP) in Mexico (Lee, 1998) are:*

- *semi-independent and decentralised administration; because of this one can respond to the changing demand of costumers;*
- *Practical orientation (20% general theory, 20% technical theory en 60% practice) with a focus on evaluation, 'hands-on' experience, follow-up and feedback;*
- *Isolated way; not for flow to higher education, but for labour market;*
- *Multimedia promotion; creating a good image;*
- *Relatively higher tuition fees; students are more motivated and work harder;*  
*Employees from the business community serve as part-time instructors; focus on practice.*

##### Improving VET

Main challenges resulting from literature are meeting demands of labour market and therefore cooperating with industry and other organizations. At the end of this sub-paragraph some smaller aspects which can further stimulate the reform VET are mentioned like evaluation, guidance and media attention.

##### *Meeting demands of labour market*

The biggest challenge of the VET-field is that the development of skills needs to answer the demand in the education- and work field and thus should be market-oriented. The fact that education often does not fit the labour market, besides the low

quality of this education can be one of the causes of the low status of vocational education (United Nations, 2003). The integration of youth into the labour market becomes a more important policy-aspect in several countries (Atchoarena, 2000). Globally the change of labour and employment has caused uncertainty in finding a job, even for well-educated youngsters. High rates of unemployment are results of this. Therefore youngsters, as a result of globalization, need to develop new, specialized skills and knowledge which are often not available in general educational institutions (United Nations, 2003). They also should be able to receive further training to react to the constantly changing labour market and therefore they must be educated flexibly. The transition from school to work therefore gets more attention from several governments and should also get more attention from VET-institutions. Especially in the less developed countries more effective vocational skills area necessary to respond to the demand from the informal sector. Nowadays the goal of VET is to teach students to adjust themselves to the constantly changing labour market and work circumstances instead of teaching them for a specific kind of job (UNESCO, 2005). Besides this there is more need for an extension of learning possibilities because of the rising of the number of primary school dropouts globally (UNESCO, 2005). Secondary schools are not able to take care of all those youngsters, let alone helping them to find a job. The need to educate those youngsters with appropriate skills, leads to new VET-strategies.

The entry to the labour market is not only an important issue in VET in developing countries. It is also a difficult and dynamic problem in The Netherlands (Zijlstra, 2002). Here a solution is sought from different perspectives. A first option is determining the shape and completion of an occupation with different parties together. Secondly a stress can be laid on general, core competencies to be able to respond to the fast changing labour market. Thirdly the actor, life long learning and innovation are central. Together with the actor qualification criteria are formulated to reduce the gap between labour market and education. These solutions could also be helpful to developing countries.

#### *Cooperation with industry and other institutions (inter)nationally*

Cooperation between industry and VET can be stimulated by addressing the bilateral character of the cooperation of which both parties can profit (Dyankoy, 1996). VET on one hand can profit from facilities, machinery, materials and expertise from industry. On the other hand industry profits from educating and upgrading employees by VET. Cooperation can take place through some specialists from industry teaching in VET-institutes and some teachers from VET working on research in industry. However there still is a big gap between industry and educational institutions in many countries, there do already exist effective contacts or there is worked in this direction. Besides cooperation with labour market also cooperation with other VET-institutions or related organizations is useful to exchange resources and knowledge. This cooperation could also be organized with institutions in other countries, especially within the developing world.

**i** In Mauritius there are examples where personnel from industry are working in an examination board of an educational institute (Dyankoy, 1996). In Austria and Belgium employees from industry also think about the execution of the curriculum of educational institutes. In India car garages offer there facilities for practical experience for students in car mechanics.

#### *Reform is needed*

Continuous evaluation (of education and costs) and tracing graduates are other important aspects to get a better connection with the needs of the labour market (Psacharopoulos, 1997). In paragraph 2.4.5 guidance is mentioned to be another aspect which can stimulate the integration of youngsters into the labour market. This can be extended through setting up job & business centers. Media-attention can be

helpful to stimulate the image of VET and to improve the status of the sector. According to Al Heeti & Brock (1997) a 'rolling reform'-model is needed to improve VET. Without reformation, as they claim, (Arabic) countries will stay dependent on external sources or employees, which causes unstable situations (Al Heeti & Brock, 1997). Therefore new methods of education should be used, like distance-education, informal or part-time education. Graduates of vocational education should get more opportunities to move to higher education, which can cause better labour opportunities and maybe even improvement of status of VET. More research needs to be done on the possibilities of offering VET outside the formal school system, privatized and firm-based. According to Psacharopoulos (1997) this is the best way to offer VET.

## 2.5 Conclusion literature analysis

Before referring to sub-question 1a, first a conclusion about the definition and importance of VET is given through answering the following question; *What is the definition of vocational education (and training) and what is its importance in developing countries?*

One of the most extensive definitions of VET found, is the one mentioned by UNESCO-UNEVOC International centre in paragraph 2.3.1. In short, VET complies *several forms of study of technologies and related sciences, involving practical skills, attitudes, understanding and knowledge for occupations in various sectors. It is provided in educational institutions or in cooperation with the world of work.*

This definition covers both vocational education and vocational training (practical training outside the formal schooling cycle, outside the workplace, with a great variety, meant for work-seeking people). The term vocational education and training (VET) is used in this report.

Two main opinions about the use of VET in developing countries can be distinguished; one in favor of VET in developing countries, as it stimulates economic growth through alleviating unemployment and improving performance in jobs through teaching practical skills. VET also stimulates social-cultural growth, because it teaches work ethics through values and attitudes. The other group is against or in doubt of the use VET in developing countries, because it is an expensive kind of education which constantly has to change according to changing technology. This technology is too fast to predict and because of this one can not stay in one profession his whole life. Skills like reading and writing have priority, before practical job-skills. However, opponents do not reject VET fully, but plead for a reform. Therefore it can be concluded that taking into account these reforms, VET indeed can be an important kind of education in developing countries.

Now a definition is chosen and the importance of VET is explained, main issues, trends and challenges can be summarized, which form a conclusion to sub-question 1a; ***What are issues, trends and challenges related to quality of vocational education in developing countries in literature?*** Despite the complexity and diversity of VET-systems and projects, an overall picture is gained through describing main issues, trends and challenges in the field. Firstly, main issues from literature will be mentioned, classified according to the categories of quality from paragraph 1.3. Secondly, main trends from literature are described and finally main challenges, which follow from these issues and trends, are explained. All these issues, trends and challenges together lead to a first prototype of guidelines for partner-organizations of Woord en Daad, the quality-card, mentioned at the end of this paragraph.

### Main issues from literature

Main issues can be classified according to the five categories of quality, mentioned in paragraph 1.3. This is shown in the table below, which contains parts of the quality-card mentioned later in this paragraph.

Table 3. Main issues in VET from literature

Category	Main issues from literature
1. Goals	<ul style="list-style-type: none"> <li>- <u>economic objectives</u>: reducing unemployment and poverty through offering vocational skills and knowledge;</li> <li>- <u>social objectives</u>: promoting a work ethic and participation in society through developing values and attitudes;</li> <li>- educate for further schooling or for (self)employment;</li> <li>- goals have to be appropriate within the context.</li> </ul>
2. Content	<ul style="list-style-type: none"> <li>- degree of vocationalization : broad general skills or specialized vocational skills;</li> <li>- social skills: communication skills, numeracy, citizenship</li> <li>- match vocational skills and available jobs.</li> </ul>
3. Processes	<ul style="list-style-type: none"> <li>- <u>method</u>: combination of practice (major part) and theory;</li> <li>- <u>location</u>: on- or off-the-job;</li> <li>- <u>organization</u>: formal, informal or non-formal;</li> <li>- <u>systems</u>: parallel vocationalized, diversified, vocationalization of part of the core and informal training;</li> <li>- <u>provider</u>: public or private;</li> </ul>
4. Effects	<ul style="list-style-type: none"> <li>- the number of trainees effectively working on the job</li> </ul> <p><u>Stimulating factors</u>:</p> <ul style="list-style-type: none"> <li>- responsiveness to labour market</li> <li>- cooperation with labour market</li> <li>- space on labour market</li> <li>- guidance of students onto labour market</li> </ul>
5. Resources and Conditions	<p><u>Resources</u>:</p> <ul style="list-style-type: none"> <li>- up-to-date and adequate amount of resources; instructors, equipment and materials, budget (exchange with others);</li> <li>- learning environment;</li> <li>- (inter)national cooperation for exchanging resources and knowledge.</li> </ul> <p><u>Conditions</u>:</p> <ul style="list-style-type: none"> <li>- equal accessibility</li> <li>- sensitize people for the use of VET</li> </ul>

Main issues regarding goals and content are the two perspectives; the economic and the social perspective with vocational and social skills. Vocational skills can be broad, specialized or in between, depending on the degree of vocationalization. Several discussions concerning the process of VET globally and nationally are given. When offering VET these all have to be taken into account and choices need to be made. Effects of VET mainly can be seen in the number of trainees effectively working on the job. Training on itself is not enough to ensure getting a job, therefore aspects like space on labour market and cooperation with industry and guidance are needed as well. Resources like materials and equipment need to stay up-to-date in order to meet the demand of labour market. Equal accessibility and good status are conditions to be met in order to achieve the goals of VET effectively.

### Main trends from literature

Related to all the issues mentioned in the latter paragraph, main trends could be identified. The following trends mentioned explain the direction in which the current situation of VET is developing according to different authors.

Because the *economic perspective* on VET is often highlighted in literature, the costs of VET seem to overshadow the benefits. Despite of this a main trend concerning VET as a whole mentioned in literature is that the sector seems to get more and more acknowledged by governments in developing countries to be essential for economic development of the country. Also the integration of youth into the labour market is mentioned to become a more important policy-aspect. Because of this attention to quality of VET of governments *status* of VET tends to improve gradually. A main trend concerning the **content**, due to globalization is offering general skills in order to be able to respond to changes in the labour market. Instead of teaching youngsters a specific kind of job, they must be taught flexibly. Another main trend in **processes** of VET is to offer it *on-the-job* and several authors mention governments wanting to shift more responsibilities to the *private* sector. Although effects of on-the-job education are not yet proven, the World Bank claims it is the most cost-efficient way to offer VET. According to her, providence of **resources** like *materials, expertise and financing* can best be left to the private sector. Besides this the number of primary school dropouts is rising globally and therefore the need for an *extension of learning possibilities* is growing. As been said earlier VET tends to get more attention from governments in developing countries. Therefore several authors think also *status* is rising and more **effects** are about to be achieved. However, trends according the effect of VET are difficult to determine. It is difficult to prove the relationship between enrolment in VET and economic growth. The trend in literature is that critics are focussing on the improvement of VET and try to find evidence for the use of VET.

### Main challenges from literature

After explaining main issues and trends in VET automatically things to improve the current situation float to the surface. These form main challenges which are dealt with in the following.

To achieve more **effects** reform in VET in the developing world is needed. Without this reform countries will stay dependent on external sources or employees, which cause unstable situations. The overall challenge in VET is *quality-improvement* with often *limited resources* available. A first execution of this overall challenge is to find the best **process** to offer VET. To fulfil the need for an extension of learning possibilities *new methods* of offering VET can be researched, for example distance learning. However, exploring and improving the quality of on-the-job learning already is a big challenge. The difficulty here namely is the fact that industry mainly focuses on productivity instead of educating people in a qualitative good way. As the trend is to shift more responsibility to the private sector, cooperation of this sector with government or the public sector is a challenge to strengthen the private sector to be able to offer high quality VET. Secondly *meeting demands of labour market* in order to ensure the **effect** of placing youngsters on the job is an important challenge for the success of VET. In this respect having a practical orientation (60% or even 70%) is mentioned to be a factor of success. *Cooperation with labour market* and other (VET)- institutions to exchange **resources** and expertise needs to be exploited more, nationally as well as internationally. A factor of success related to resources is raising money through selling products made in VET. In case of tight labour markets, *guidance* can be used more to find appropriate jobs for graduates. Besides that also new ways to *create enterprises and jobs* can be searched and opportunities for *further study* need to be offered. Involvement of labour market can be improved by stressing the importance of good quality employees and therefore good quality vocational education. Besides that the bilateral character of a *cooperation* of VET-institutes and industry can be emphasized. This can be done through for example involving employers in curriculum planning or involving teachers from VET in company research, as appeared to be one of the factors of success. Through all these challenges automatically *status* will be raised. Finally aiming at sustainability, having a long-term perspective appeared to be a very important factor of success.

## Quality-card

It can be concluded that several sources of VET-literature discuss several aspects of quality of VET in the context of developing countries. But, despite of the fact that quality is hard to measure, the five categories of quality of education used by the Ministry of Educational affairs in The Netherlands can be used to categorize issues, trends and challenges to take into account when improving or starting VET-projects. Within these five categories *basic elements* could be distinguished, which every situation of vocational education should satisfy. Besides these basic elements a lot of *discussion elements*, from which choices have to be made, depending on the context of the VET-situation, came forward. In this phase also some *interesting examples* were given in the blue boxes. Some show examples of cooperation with other countries and with labour market, accessibility and staying up-to-date. These basic elements, discussion elements and interesting examples together, form the result of the literature analysis. With this result also expertise about vocational education within Woord en Daad is further extended, which meets the first part of the first goal of this study. In order to also meet the second goal of this study: offer partner-organizations of Woord en Daad working in developing countries guidelines to improve existing or start new projects in vocational education, the result of the literature analysis has been translated into a quality-card. This card is a first prototype of guidelines for partner-organizations of Woord en Daad. The quality-card consists of five tables, one for each category of quality. Each of these tables consists of basic elements, discussion elements and examples of good practice, as also mentioned above. It is important to mention that quality-measurement in education is not just a process of checking criteria. One has to take into account the cultural, social and demographic context of an educational situation (Lagerweij & Lagerweij-Voogt, 2004). Therefore the quality-card does not give a balanced overview of qualitative good vocational education. It does not give a complete overview of all existing quality elements. Only striking elements mentioned in the examined literature are included, on the assumption that these really matter in this context. The quality-card gives an overview of main issues, trends and challenges to take into account, when improving or starting vocational education in developing countries. Besides this, also aspects of good practice and recommendations are given.

In order to increase the validity, relevance and usefulness of the quality-card, experts are asked for their opinion. Therefore in the next paragraph the method used to gather this opinions, with accessory goals, results and conclusions will be explained.

## 2.6 Expert meeting

The main results from the literature study, translated into a quality-card, are discussed with some experts. The main goals related to this discussions are;

- to gather opinions about the validity of guidelines;
- to gather opinions about the relevance and usefulness of the first prototype of guidelines, the quality-card.

As the quality-card contains the results of the literature study, main issues, trends and challenges are integrated in the five tables. Therefore to achieve the goals stated above, the following research question (1b.) is answered: ***What are opinions of experts about issues, trends and challenges related to the quality of vocational education in developing countries?***

A focus group is a useful method for discussing a certain topic with a small number of carefully selected people with common interests (Section on survey research methods, 1997). Therefore this method is appropriate for answering research question 1b. Besides that, in order to offer Woord en Daad a basis to a network for knowledge exchange in future (see first goal of this study), gathering experts in a meeting is also useful. A focus group method with plenary and little group discussions is used during an expert meeting. Experts from different perspectives in the vocational education-

area in The Netherlands as well as in developing countries (among others educational consultants, a school director, a professor, and educational scientists) joined the meeting. As the ideal size of a focus group to share ideas effectively is six till twelve people, seven external and five internal experts participated in this meeting. For detailed information about participants see appendix 2.

Participants were asked to prepare themselves before coming to the meeting. Therefore some preparation material was sent on forehand. As a variety of experts will participate in the meeting, of which some not working in a development context, three cases with VET-situations in developing countries were part of the preparation material. These were meant to give an insight in VET-situations in developing countries. Secondly, the preparation material consisted of the quality-card. To use time effectively and add profundity to the meeting, participants were asked to formulate their opinion about the card before coming to the meeting. Finally, participants were asked to orientate themselves on projects and activities of Woord en Daad through reading their website.

During the meeting the following was done. Firstly, participants and the aim and current results of the masters' thesis were introduced. Secondly, the first round of discussions about the content of the quality-card was held, consisting of a plenary discussion, discussions in little groups and a plenary concluding session. In the second discussion-round the relevance and usefulness of the quality-card was the central theme.

Main results from the meeting were as follows. In the first plenary discussion the group of experts agreed that it is important to choose a perspective to look at quality. During the discussion the meso-(institutional)level is chosen. However, one expert mentions this does not mean that this level can be disconnected from the macro(governmental)-level. The experts emphasize that one has to reason from the concrete situation when working with developing projects. Giving assistance and facilitate activities is important, but local people should carry it out. There is a difficult area of tension between facilitating possibilities or carry it out yourself. Results from the discussions in little groups contain several important quality-aspects to add to the quality-card. Main aspects are; entrepreneurship, innovation, management and even basic conditions like electricity and water. They also noticed that some elements mentioned in one of the tables are overall elements and fit in several tables (like quality assurance). The main result from the second discussion round is that the group agrees the quality-card should be used not as a check-list, but as a list with points of attention. When it is used like that and made more specific and differentiated, according to the adjustments discussed in the meeting, it is a useful list. However, to be able to design practical guidelines for partner-organizations, an empirical analysis is needed. This study namely should focus on real practice of VET, rather than using conceptual information only. According to the experts involved therefore a visit to a vocational education project in a developing country is recommended.

The results of the meeting lead to the following concrete adjustments for the quality-card:

- Add aspects like entrepreneurship, management, innovation, basic conditions, broad foundation of people involved as important elements for quality;
- Specify and diversify the aspects;
- Add experiences from practice;

The quality-card, adjusted after the expert meeting, can be viewed in appendix 2. In order to be able to design practical guidelines for partner-organizations besides a conceptual analysis an empirical analysis is needed. Therefore a document-analysis of partner-NGO's in three countries is planned. Related to the second and third adjustment mentioned in the latter, the scope of the empirical analysis has been restricted further than this document analysis only. Therefore the empirical analysis is extended with a case study on a vocational education project of one of the partner-NGO's of Woord en Daad.

## 3 Empirical analysis

The first phase of this study resulted in a quality-card, a first prototype of guidelines, adjusted after an expert meeting. This quality-card shows elements to take into account when improving and starting vocational education in developing countries. As there often is a gap between intentions in literature and real practice besides a conceptual analysis a view on the current practice is needed. To fully achieve the goals of this study, make the quality-card applicable to situations of partner-organizations of Woord en Daad, the following goals have to be met:

- orientate on issues, trends and challenges related to quality of real practice of VET in developing countries;
- receive input for designing practical guidelines for partner-organizations of Woord en Daad working with VET.

Because issues, trends and challenges from practice will be used as input for designing the practical guidelines, both of the goals mentioned above can be achieved by answering one research question; **2. *What are issues, trends and challenges related to the quality of vocational education in developing countries from an empirical perspective?***

For answering this question, an empirical analysis is done. As it is impossible in this study to answer this question for all developing countries, a focus has to be made in this empirical analysis. This is explained in the next paragraph.

### 3.1 Focus

The second research-question in this study is divided into two sub-questions; one about the practice of VET of some of the partner-organizations of Woord en Daad in a selection of developing countries and one about one specific case of a vocational education. Woord en Daad cooperates with several local non-governmental organizations (NGO's) around the world. Because the guidelines will be designed for these partner-organizations, the scope of research question 2. will be restricted to partner-NGO's of Woord en Daad working on VET-projects. Therefore to achieve the goals stated above, firstly the following question will be answered;

***2a. What are issues and challenges related to the quality of vocational education in projects of partner-NGO's of Woord en Daad?***

To orientate on real practice of VET and receive more input for designing the practical guidelines, as also recommended by the experts involved in phase 1b., in this study the scope of the empirical analysis has to be restricted even further. To get as much information as possible in a limited amount of time, the focus is on a promising vocational education project of one of the partner-NGO's of Woord en Daad. Therefore in the second part of the empirical analysis the following question will be answered;

***2b. What are characteristics of quality of a promising vocational education project of a partner-NGO of Woord en Daad?***

Different stakeholders in this promising project will be asked their opinion about the issues, trends and challenges related to the quality of VET.

In relation to the two sub-questions this phase consists of two sub-phases. Phase 2a contains a document analysis of the NGO's within the three countries Burkina Faso, India and Ethiopia. Phase 2b contains a case study on the VTC Addis Abeba in Ethiopia. The detailed design of each part is explained in the accessory paragraph. Firstly, the design and results of the document analysis is dealt with in paragraph 3.2. In paragraph 3.3 the design and results of the case study, answering question 2b are given.

## 3.2 Document analysis of partner-NGO's

Now the focus of the empirical analysis is made clear, in this paragraph the first part of this analysis, phase 2a containing a document analysis of partner-NGO's is explained further. In this paragraph the detailed design and the results of the document analysis are given. Finally conclusions will be drawn from the comparison of the main results from NGO's in three selected countries.

### 3.2.1 Research design

The first goal of the empirical analysis is to orientate on issues, trends and challenges related to the quality of real practice of VET in developing countries. As this study is done in the context of Woord en Daad, the scope of this study are the countries in which partner-NGO's of Woord en Daad are working on VET. Therefore the following question will be answered; *2a. What are issues related to the quality of vocational education in projects of partner-NGO's of Woord en Daad?*

Because it is impossible to include all the NGO's in all these countries, a selection has to be made. In this selection the following criteria are important:

- Focus of Woord en Daad is on Africa;
- Variation among countries;
- Practical reasons; time, information already available at Woord en Daad.

Taking into account these criteria the following selection is made from partner-countries of which most information is available, two working in Africa; Burkina Faso being very poor, Ethiopia growing and India which has a very different culture (caste-system). Therefore partner-NGO's of Woord en Daad in Ethiopia, Burkina Faso and India are selected.

To get an answer to research-question 2a. document-analysis is done. To achieve the second goal of this analysis and study: designing guidelines to improve or start projects in VET, this is done on a broad level, because taking into account the context of a VET-situation is very important in improving or starting VET-projects. Therefore, before focussing on one specific project within one context, in the document analysis several VET-projects are discussed within different contexts. This explains why on one hand several literature sources are used to get more general information about the country and the role of VET within its educational system. On the other hand documents available at Woord en Daad are used to get detailed information about the practice of projects in the three countries. Files available at Woord en Daad contain project-visit-reports, correspondences and other project-information. In order to get an up-to-date overview, files not older than 4 years are used for this. These files do not give a complete overview of quality-related aspects of these projects. However, they do give an insight in the main issues, trends and challenges within different contexts. Besides these, the final report on the Job & Income-seminar held in April 2005 will serve as input for this phase. Again the classification of quality from paragraph 1.3 is used. It serves as a framework for analysing the files, literature and final report of the seminar.

In the next three paragraphs VET-projects of partner NGO's of Woord en Daad in the three selected countries are explained.

### 3.2.2 Results: Burkina Faso

In order to get a view on the context of the VET-projects of partner-NGO's in Burkina Faso, in this part firstly some general information about the country and its VET-sector is given. After that the VET-projects of Partner-NGO's of Woord en Daad are discussed using the five categories of quality from paragraph 1.3.

*General*

Burkina Faso is one of the poorest countries in the world. Landlocked Burkina Faso has few natural resources and a weak industrial base. About 90% of the population is engaged in agriculture, which is vulnerable to difficult climatic conditions. Main products in this sector are (starting with the largest by value of annual output) cotton, peanuts, shea nuts, sesame, sorghum. Industry remains dominated by unprofitable government-controlled corporations. Main products here are cotton lint, beverages, agricultural processing, soap, cigarettes, textiles, gold. The country has a rather stable government. It is one of the countries which meets the criteria for bilateral help in the Netherlands (CIA, 2005). More detailed information can be seen in Table 4.

Table 4. General information about Burkina Faso

General information Burkina Faso			
Government type	Republic (CIA, 2005)	Population below poverty line	Above 55%
Population	13,925,313 (CIA, 2005, WorldFactbook)	Percentage of women in working population	47% (World Bank, 01)
Population younger than 15 years	+/- 50% (CIA, 2005)	Working in Agriculture and fishery	92 % (MinBuZa, 1990)
Life expectancy at birth	43,9 years (CIA, 2005)	Working in industry	2 % (MinBuZa, 1990)
Literacy (age 15 and over can read and write)	8,1% (v) - 18,5% (m) (MinBuZa, 2003)	Working in trade and services	6 % (MinBuZa, 1990)

*VET on country level*

In Burkina Faso, among other countries, pupils enter the VET-branch at the end of the primary cycle. The educational system (see Figure 4 in appendix 1) is inherited from France, the colonizing country. Children enter primary school at the age of seven. Primary net enrollment ratio (enrolment of primary students of the official age expressed as a percentage of the primary school-age population) in 2003 was 36,2%. At the end of their six-year study they can continue in secondary education which is divided into two levels; junior high school of 4 years and senior high school of 3 years. Secondary net enrollment ratio in 2003 was 9%. There is no great diversity in technical training programs in Burkina Faso, because this sector in education is not well developed. Most of the schools in Burkina Faso are public schools with a fixed program. The number of vocational education students as a percentage of secondary education is 20,8%, which is strikingly high compared to the low primary and secondary enrollment ratio.

Woord en Daad distinguishes several forms of VET in Burkina Faso:

- CEP (Primary and elementary training certificate: lower education (6 years);
- CAP (certificate professional attitude): 4 years training after primary school;
- BEPC: after 4 years of secondary education (lower-general education) (4 years). The nature of the BEPC program is just the first cycle of the bac-program, which is the preparation for other studies, like university;
- BEP: secondary education (MBO) (informal training of 2 years after CAP). These programs do not add very much for CAP-students, but are developed for BEPC students. There is a tension between the twofold goal of BEP: educating for labour market and educating for moving on to university. The curriculum of the government includes more theory than practice;
- VTC; informal training of 2 years- sort of BEP-program, as a follow-up for CAP. This kind of education is meant to catch drop-outs from the formal system. The disadvantage is that you do not have a formal diploma. Two kinds of VTC can be distinguished; one for drop-outs and one for bests. BEP is not for the dropouts, but for bests.

*VET from partner-NGO of Woord en Daad*

Woord en Daad has one partner organization in Burkina Faso, called CREDO (Christian Relief and Development Organization). Since 1995 it is an indigenous organization, which strives for striking poverty in an integrated way. Food, health, education and care are important aspects within the projects and programs. CREDO is working in an area with regular food shortages and malnutrition. Especially women have a hard time; they are mother and employee at the same time, have little education, bad feeding and health care and so on. Although it is strived for to involve local people in evaluating projects, this can still be further improved. CREDO has two vocational training centers in Burkina Faso; in Bobo and in Leo. They also offer food assimilation-training: soybeans, fireplaces, drying and selling fruit and vegetables. Besides this training in making soap, sewing and literacy is offered.

The term 'VTC' in Burkina Faso is used differently than in other partner-countries of Woord en Daad. In this country it means a very short informal and practical training.

In the following part the two VET-projects are further explained. The list of quality-elements resulting from part 1 of the research (see paragraph 1.3) are used to categorize the information.

**1. Goals**

Main goals of the VTC's of CREDO (2004-2006) are:

- To contribute to the improvement of the position of poor children in Burkina Faso;
- To realize vocational training of young, poor, adoption children;
- To install the trained youngsters in the economical circuit after training.

The gap between primary and secondary education in Burkina Faso is very big. CREDO focuses on dropouts as they are most vulnerable. Practical vocational education on a suitable level is wanted, either technical or agricultural. CREDO strives for a tailored curriculum for technical education which is functional with input of companies and labour market and wants a regional or national network in which VTC's participate.

**2. Content**

Besides courses in several technical fields common courses like ethics, values and standards and Bible lessons are taught in CAP, BEP, BEPC/VTC Leo.

**3. Processes**

Besides the VTC for children leaving primary school and drop-outs from formal secondary education the Bobo-project includes CAP-level (as is the case in Leo) and BEP-level education. CREDO wants to provide a more innovative and demand-driven BEP than the governmental BEP in order to realize a practical program which gives more opportunities in the market place. In Bobo they have the chain from primary education until VTC/CAP-BEP. Lycee Technique Leo offers 4 years informal (but accredited by government) training, with in the first year general subjects like science, mathematics, French and English. In the 2nd- 4th year students can follow a specialization. The trainings have 70% practice and 30% theory (good practice copied from Ethiopia). Besides theoretical and practical education in technical subjects, students also get more general education, for example about biology. The informal status allows possibilities for input of the business platform, like IntelliCAD, business items. The students are 13 to 17 years old, mostly boys.

In 2005 both branches in Leo had 266 trainees. Both branches form one class in the first year and split up in mechanical and electrical in the second year. Apprenticeships in Leo are held in third and fourth year. Students write letters to companies and CREDO adds a recommendation letter. Afterwards companies are asked for their opinion about the apprenticeships to improve the curriculum and for future 'job networking'.

#### 4. Effects

Burkina Faso has little experience with vocational education. The VTC-projects therefore are pioneering projects, starting with feasibility studies. There are trainings after which only jobs in the capital can be found, due to complicated machinery. There are also trainings which make trainees mobile so that they can work everywhere. Examination is done at governmental schools. In 2005 42 trainees graduated without ceremony. Seven of them went to the technical education in Bobo. In 2003 about 38% of the adoption children were absorbed by secondary education; 60 at VTC Leo, 60 by Lycee Bethesda in Ouaga and 30 by VET in Koudougou. There are plans for new agricultural VTC's in other regions. The indicator of success of CREDO is an employment-rate of 80% within 1 year after training. However, it is very difficult to get employed because of young age of the youngsters (16-19 years). Besides this employers mostly hire family-members first, even if they are unskilled.

#### 5. Resources and conditions

In Bobo there are only two schools who train students for CAP-level (only 8 in technical areas in the whole country), so not more than 50 students a year. Lycee professional admits only 20 students a year, which excludes a lot of students. In Bobo (1 million people) three different VTC's (400 youngsters) in industrial branches, which are searching for a formal status or conforming their program to a CAP program. There is only one Lycee Technique (Leo) which educates in mechanics, electricity etc. to the BEP-level.

There is a very high rate of agricultural jobs in Burkina Faso. If students want to get a job after graduation they have to leave their roots and go to the city. Creativity is very important to create new (agricultural) trainings and jobs.

Besides the problem of 'quitters', high costs are a big problem in Burkina Faso. Next to the existing Lycee a VTC is wanted. Teachers of the technical school in Leo say there are certain starters' problems at CREDO, like insufficient tools, but the team spirit is positive. Qualified personnel for a management-function in a VTC are hardly available in Burkina Faso. Vocational teachers are scarce because vocational education is in a pioneering phase. CREDO tries to educate their own personnel. Parents' participation is achieved through parent committees. These get a small budget to pay for needs for the youngsters. Three times a year there is a meeting with those committees.

In 2004 CREDO has started network- activities. There are some contacts with VTC Mali, Centre Koudougou and Centre Austro. Lycee Professionnelle Bobo can also be asked for knowledge-exchange. There are also plans to make contact with governmental institutions to exchange ideas about the concept of VTC (January 2005).

Main constraints of the present situation at CREDO are (February 2004):

- school fees;
- difficult to have permanent certified teachers for technical branches on VTC Leo;
- distance between school and place of living;
- age of youngsters; 16-19 years when leaving; difficult to get employed at this age.

### 3.2.3

#### Results: India

In order to get a view on the context of the VET-projects of partner-NGO's in India, in this part firstly some general information about the country and its VET-sector is given. After that the VET-projects of Partner-NGO's of Woord en Daad are discussed using the five categories of quality from paragraph 1.3.

##### *General*

India's diverse economy encompasses traditional village farming, modern agriculture, handicrafts, a wide range of modern industries and a multitude of services. Services are the major source of economic growth, though two-thirds of the workforce is in

agriculture with products like rice, wheat, oilseed and cotton. The economy has an excellent average growth rate, reducing poverty by about 10 percent. India is capitalizing on its large numbers of well-educated people skilled in the English language to become a major exporter of software services and software workers. Other industrial products are textiles, chemicals, transportation equipment and cement. Despite strong growth, the World Bank and others worry about the combined state and federal budget deficit, running at approximately 9% of GDP. The huge and growing population is the fundamental social, economic, and environmental problem. In late December 2004, a major tsunami took nearly 11,000 lives, left almost 6,000 missing, destroyed a lot of property and severely damaged the fishing fleet. The caste system is still prevalent in most parts of the country. In the table below some more detailed country-information can be seen.

Table 5. General information India

General information India			
Government type	Federal Republic (CIA, 2005)	Unemployment rate	9% (CIA, 2005- est. 2005)
Population	1,080,264,388 (CIA, 2005, est.)	Percentage of women in working population	(World Bank, world dev report 2000-2001)
Life expectancy at birth	64,35 years (CIA, 2005)	Working in Agriculture and fishery	60% (MinBuZa, 2005)
Literacy (age 15 and over can read and write)	46,4 % (v), 69,0 % (m) (MinBuZa, 2002)	Working in industry and trade	17% (MinBuZa, 2005)
Population below poverty line	25% (CIA, 2005- est. 2002)	Working in services and government	23% (MinBuZa, 2005)

*VET on country level*

The educational system in India has a 10+2+3 pattern (see figure 5, appendix 1). The first ten years provide undifferentiated general education. The +2 stage provides higher secondary education, with differentiation into academic and vocational streams. Because a lot of student only attend primary school, ‘work experience’ is integrated as a subject in primary education with apprenticeships and experiments around the world of work. The VET-system in India is multi-sectoral. The Joint Council of Vocational Education (JCVE) is responsible for overall coordination of vocational education (Mishra, 1993). Governments have a dominant role in provision of school-based VET in most Asian economies. The quality of private VET-institutions has been found to be generally poor compared to public institutions in many Asian countries (Tilak, 2002). Three major types of VET can be distinguished (Mishra, 1993):

1. *technical industrial arts and crafts school*; one vocational subject like carpentry, molding, plumbing or rural technology is offered as a kind of offshoot of general schooling;
2. *higher secondary vocational education*; to develop skilled manpower through diversified courses (production and service oriented);
3. *technician education*; polytechnics which provide broad based education in engineering and some non-engineering areas.

After grade 10 in formal education students can join ITI or Diploma, a three-year training. After intermediary (grade 12) Degree college in engineering can be joined for 4 years. After Diploma students can enter the second year of Degree college. India has 165000 students in 931 higher secondary schools (58% girls), 39594 students in 374 vocational higher secondary (53% girls). Primary and Secondary gross enrollment ratio are respectively 107,5% and 52,8% (World Bank, 2003), in 1990 10% of all students was enrolled in vocational education. Vocational education in India often is associated with low prestige, education for the poor and educationally backward

sections of society, second-class education. There is a negative attitude towards manual work, because this is meant for lower caste, racial minorities and women.

### *VET from partner-NGO's of Woord en Daad*

In India Woord en Daad cooperates with 5 partner organizations with the following VET-projects:

- Word and Deed India - VTC Hyderabad;
- AMG India - VTC Parimithadaka + new life center, Vijayawada;
- COUNT (Christian outreach uplifting new tribes)- VTC Secundarabad
- GSPI- Good Samaritan project
- IREF

The vocational projects of these organizations will be further explained in the following:

### **1. Goals**

Main aims of the Indian projects are:

- provide non-formal technical education to the poor and marginalized students (dropout, tribal girls) that they can employ themselves and support their families. Not only trained with technical skills, but also being straightened morally, ethically and spiritually. An equal distribution of girls and boys is strived for;
- reaching and uplifting tribal communities living in backward districts of India;
- spread literacy and learning by establishing institutions of education. Establish hospitals, nursing homes and other like institutions to promote health of the community at large.
- building a bridge between vocational education/ scholarship program, the labour market and the private sector to offer youngsters social independence.

### **2. Content**

Several trainings are given by the different projects, some offer 10, some offer 2 different trainings. Mainly technical training is given except for the VTC for tribal girls. Some of the trainings appear to be unpopular because they are related to lower castes, for example woodworks. In addition to trade subjects students get morals, ethics, spoken English, calculations, science and drawing. They are taught about the power of mind, conscience, emotions, forgiveness, significance and security etc. Tribal girls who had no previous education are also given non-formal education and trained in personal hygiene and sanitation etc. Teaching includes the theory, workshop practices and also hand work for the working in the field. Some of the training centers sell their products. The benefit goes to participants.

### **3. Processes**

All of the projects have 1 year-trainings, except the GSPI projects, with 6 months' training. Training is informal, but there are certain plans to make it formal to get opportunities for graduates working for the government. Entrance in Hyderabad is allowed above 15 years old, with a minimum of primary education of the 5th class. In 2005 they had 277 students, 194 boys and 83 girls. Girls are preferring tailoring, computers and radio/tv mechanism. The VTC thinks about new training areas to attract girls.

The target group of the projects are mostly dropouts; poor children which are historically backward, due to poverty and illiteracy of their parents. There is a great need to provide training for self-employment in technical vocational training to add dignity and honor to their lives. Young school dropout tribal children from 13-20 years old are usually going to the deep forest to collect things like firewood for their livelihood. Some even do not wear clothes. These tribes live from fruit and wild. Tribals do not allow girls to go to school after puberty. Due to illiteracy they have

superstitious opinions and practices, with a lot of restrictions and social stigma's. This results even in more dropouts.

Other children face problems because agriculture is the main source of income, but exhausted. The lack of expenses for education is the biggest problem. The relation theory-practice in the VTC's are 30-70%. In one project students study 6 days a week and besides that some study-hours in the hostel. Apprenticeships training for nurses and paramedicals are done in the Palai hospital.

#### 4. Effects

Coaching after graduation is not available (2001), but after three months there is a day of return, on which graduates exchange experiences, and get advice from instructors. As the courses are non-formal students are dropping out when they are not able to adjust to the discipline, were habituated for a free life, get jobs, get married, could not adjust in the hostel, failed the exam, have family or health problems without informing. The partner-NGO's in this country claim that 70% of the graduates finds a job within 6 months, 12% continues education and of 18% there is no information available (Seminar, 2005). In '03-'04 155 out of 227 trainees (68%) were employed, 25 went to higher education and about 30 dropped out. The system is so successful that companies ask for students that not even started their training yet. The projects Parimithadaka started in 2000 with 40 tribal girls. In 2002 this were 80-85 and in 2003 50. AMG wants to provide technical training for 150 boys at the new life self help center and 50 girls at Parimithadaka. From VTC Secunderabad 64% of the batch of 2005 already found a job after one month. The new batch in 2005 contained 270 trainees. 92 are girls (30 computer, 62 tailoring) and 178 boys. In the last 5 years (00-05) 901 students were trained and 616 got a job (70%). Most of the graduates get a job in private companies, local electricians and government jobs. Some work in private work shops for more experience. Students are followed one year after graduation. Every quarter the school visits their workplace. Already one graduate has started a tailoring-business. Again 10 graduates are willing to start their own business (November 2005). From records and individual cards maintained for each student, details of students (study results, employment details) can be reviewed and evaluated.

#### 5. Resources and conditions

AMG has an entrance test (general development) to test the aptitude of trainees and an personal interview. The courses are allotted based on their performance on the written test and the interview. There are fifteen qualified staff people at VTC Hyderabad. They have had possibilities for personality development, for example a seminar about how to encourage and motivate trainees. 18 people working at the VTC Secunderabad; 14 instructors and a job placement manager (2005). Besides these there are two volunteers to give morals & ethics and English. The head of the school has a masters degree and postgraduate education in technology. At GSPI they mainly have qualified personnel. The work in Kannamaly is of high quality and products are on demand. Woord en Daad India is focusing on job mediation. They have contacts with 50 companies. Most trainees prefer a fixed job instead of starting their own business. Sometimes the willingness of the parents is an external factor. If the students start a business unit in their house, the parents are willing to cooperate. There are ideas to start a production center next to the VTC Secunderabad. They have a JBC for establishing contacts with employers, for getting feedback from employers on the content of the trainings (curriculum already is adjusted due to this: communication skills and English are added) and establishing trust with, spreading good name to employers. Since June 2005 the network with employers has extended with 68 companies. 73 companies already hired graduates. Some companies even offer materials for usage in the VTC.

3.2.4 **Results: Ethiopia**

In order to get a view on the context of the VET-projects of partner-NGO's in Ethiopia, in this part firstly some general information about the country and its VET-sector is given. After that the VET-projects of Partner-NGO's of Woord en Daad are discussed using the five categories of quality from paragraph 1.3.

*General*

Ethiopia is amongst the poorest in Africa. The poverty-stricken economy is based on agriculture (half of the GDP, 60% of the export and 80% of total employment). Coffee is critical to the Ethiopian economy, but historically low prices have seen many farmers switching to qat to supplement income. Other main agricultural products are cereals, pulses, oilseed and sugarcane. The war with Eritrea in 1998-2000 and recurrent drought have buffeted the economy, in particular coffee production. Normal weather patterns late in 2003 helped agricultural and GDP growth recover in 2004 (CIA, 2005). Industries are food processing, beverages, textiles, chemicals, metals processing and cement. In the table below more detailed information about Ethiopia can be read.

Table 6. General information Ethiopia

General information Ethiopia			
Government type	Federal republic (CIA, 2005)	Working in Agriculture and animal husbandry	80 % (CIA, 1985)
Population	73,053,286 (CIA, 2005)	Working in industry and construction	8 % (CIA, 1985)
Life expectancy at birth	45,5 years (2000-2005) (UNESCO, 2004)	Working in government and services	12 % (CIA, 1985)
Literacy	33,8% (v) - 49,2% (m) (MinBuZa,2003)	Unemployment	Over 50%
Population below poverty line	50 % (CIA, 2004 est.) 98,4% is living on less than \$2,- a day (1990-2001) (UNESCO, 2004)		

*VET on country level*

Major educational reforms were implemented from 1994 introducing a new school system and curriculum (CLC, 2003). The new system consists of 8 years primary, 2 years of junior secondary and 2 years of upper secondary education (8-2-2) and replaced the former 6-2-4 system. Figure 6 in Appendix 1 shows the formal ways of education. Non-formal education and training is possible at all levels and ages and varies in duration. Until now there is no opportunity to study further in higher education after diploma level VET (10+3). Primary gross enrolment ratio was 66%, at secondary level this was 20% (World Bank, 2002). In 2000 96,9% of the trainees from primary move up to secondary level (UNESCO, 2004). Development of the VET-sector in Ethiopia is still in its infancy (ILO, n.d.). It remained a neglected sector until recently. VET both in specialized schools and comprehensive schools was seen as second-class, by the society generally and the youth specifically, due to the low rewards to those who had completed this training (Ministry of education, 2003). The government of Ethiopia wants to reverse this trend and proclaims the provision of VET parallel to (linked and coordinated with) academic education and diversified meant for those who leave school from any level of education to train middle level manpower (Balema, 2003, Ethiopian national agency for UNESCO, 2001).

Currently several kinds of VET are offered. Public as well as non-public agencies provide short and long-term VET using both formal and non-formal approaches. Four kinds of VET can be distinguished (ILO, n.d.):

- higher education institutions, for top-level professional personnel;
- VET-schools, institutes and colleges, for personnel at lower or middle occupational levels;
- Training centers attached to public agencies, for meeting their own manpower needs;
- Informal on-the-job apprentice training, which takes place in non-farming occupations at work place.

Besides more attention for VET in the Poverty Reduction Strategy also a five-year Education Sector Development Program (ESDP) was implemented aimed at improving the quality of education to more demand-driven systems that can produce adequate skilled human power for the implementation of the Sustainable Development and Poverty Reduction Strategy (Ministry of Education, 2005). From statistics can be concluded that the sector has expanded and diversified tremendously the last few years. In 2004 a total of 72,162 students were enrolled in 134 government and 19 non-government TVET schools in the 10+1 and 10+2 TVET programs. The share of female enrolment is 48.2% (PRSP, 2004).

#### *VET from partner of Woord en Daad*

Woord en Daad has 1 partner-organization in Ethiopia, Hope Enterprises, established in 1971. The most important mission of Hope Enterprises is to provide Hope for the needy through holistic human development. More specified Hope wants to provide long-term and in-dept support in a chain approach that is similar to Woord en Daad, called the Ladders of Hope. This ladder goes from basic needs (orphanage), basic education (2 years kindergarten, 10 years school), vocational training (1 or 2 years) to job-placement and job-creation in Small and Medium Enterprises (SME's). The five elements of the ladder are basic care, education (from pre-school to secondary education), competence (professional skills and employability), sufficiency (job placement and career planning) and value maturity. Every day they serve 7600 beneficiaries.

At the moment Hope Enterprises has 2 VET-projects, which are part of the rung of competence; VTC Addis Abeba and VTC Dessie and there are plans to start one in Gambella. The oldest VTC in Addis Abeba started with informal training of a few months. Later on this was expanded to 8+3 formal training and 1 year-training for the weak students. But students had a weak theoretical basis and were very young to practice their jobs. Because of this the curriculum was changed to 10+3. Students are at the age of 19/20 when they graduate. In 2003 the government started with accreditation standards. The curriculum was adjusted to 10+1 and 10+2. Hope also got accreditation and added their own experiences to the governments' curriculum. Before the accreditation students had no opportunity working in governmental organizations. Now they are acknowledged. The number of students placed on a job is their indicator of success.

The vocational projects of Hope Enterprises will be further explained in the following:

#### **1. Goals**

General objectives of Hope are as follows:

- to meet basic needs of marginal people;
- to enable youngsters to stand on their own;
- to raise awareness about the plight of the weak and influence public policy and implementation in their favor;
- to engage in research and development in areas of skill training and micro-projects in order to match labour demand with training;
- to strengthen the capacity of organizations focused on poverty alleviation and the terrible consequences of it.

They focus on individual people which receive continuous support over a period that can last 14 years. Hope Enterprises is targeting the poorest of these poor (MDF, 2005). The neediest children, like orphans and children from poor families are selected. Hope's vocational training centers cater to youngsters who are enrolled in training in several fields. The vocational dimension to the education is very important to make the children self-supportive members of society. The VTC in Addis is the oldest project. This project is copied to Dessie. The VTC in Dessie is founded in 1991.

## 2. Content

Several technical (2 social) trainings are given, 4 in Addis and 4 in Dessie. In 2005 computer-assisted learning is introduced in the vocational classrooms with an addition of more computers. Besides skills courses, courses in English, mathematics, civics and small business management are given. According to the new training policy (2002) of the government also basic computer courses became a compulsory subject for any vocational trainee. The computer course next to the current courses is for upgrading general knowledge and development of the youngsters, which again has a positive influence on their self-confidence and extends the possibilities on the labour market. This can also lead to improvements of the language and can motivate. At the moment experience with pc's is a 'bargaining tool' in finding a job. Besides that it is good for profiling the training.

## 3. Processes

As all the trainings of Hope are accredited to be able to compete for governmental jobs, Hope has to work with the governments' curriculum. According to this curriculum vocational education in Ethiopia should be provided in English. Common courses like ICT, mathematics, English, civics and ethics, entrepreneurship should be offered to prepare youngsters for entrepreneurship and self-employment as well as enable them for continued training (Giorgis, 2004). Trainees should have completed general secondary education and have inclination and will to be trained. Education will contain 70% practice and 30% theory, apprenticeships should be included to reinforce skills of trainees and it can be offered formal as well as non-formal.

Dessie, one of the cities where a sizable number of people are displaced due to war in Eritrea and the country is vulnerable due to deforestation and lack of water-catchments and storage. At the moment there are about 120 students enrolled. Addis Abeba currently has about 3.500.000 Million inhabitants with an unemployment rate of about 38% (N.a., 2005). The average monthly income of the inhabitants of Addis Abeba is around 34 euro. The vast majority is living under the poverty-line. Hope wants to reach the poorest of the poor, some even living on the streets.

All of the trainings in Addis are 2 years except the one-year training in international hotel and home services. In Dessie all the trainings are one year. Besides the formal accredited trainings informal education is offered for those who have not had opportunities of secondary education and who had to join the job market faster on account of age and needs. The curriculum is preparing for government exams and is linked to formal curriculum (after 2 years the best students can also go for a third year Government VTC). The biggest amount of time is spent on practical experience in the training, whereby income generating activities are sought (for example repairing tv's, radio's at the school). 50% participation of girls is achieved (MDF, 2005). There is a two months' apprenticeship-program, to develop confidence and gain marketable skills. Besides that there are possibilities to practice at school in workshops, but also on real site, in a restaurant for International hotel and home services incorporated at the campus. Together with small building activities, like constructing shower rooms at the campus, the school is almost self-supporting. The students of Hope often stand out because of their qualities and are offered jobs immediately. Now (2005) there are plans to elevate the level of the vocational training in Addis Abeba to a junior college. Then this VTC can also serve the other VTC's by offering knowledge through the train-the-trainer principle.

#### 4. Effects

At Hope job mediation can not be separated from vocational education (MDF, 2005). Because there are no employment-opportunities for all graduates Hope also help these set up Small and Medium Enterprises. But graduates have limited capacity to do business, lack innovation, confidence, independence, ambition and willingness to take risks. In 2005 (MDF) 80-85% of VTC are effectively placed in a job, a good and varied network with enterprises has been established and economic situation of ex-pupils has improved. The JBC is for Addis Abeba as well as Dessie. Evaluation is done every year by external Ethiopian consultants, in which all stakeholders are concerned. Internally Hope has the tradition of continuous needs assessment. Sometimes the existence of some fields of training become questionable, and are therefore faced out. In 2005 there were 194 trainees in Addis, 41% of them were girls. 19 were being set up in businesses of their choice in tailoring, plumbing or cosmetology. In January 2006 91 out of 154 graduates (59%) in July 2005 were employed. The employment-rate in one year is about 83%. In Dessie there were 125 trainees in '04-'05 out of which 59 (47,2%) were female. In July 2005 58 were graduated out of which 8 continued in colleges and 14 were employed in January 2006.

#### 5. Resources and conditions

There are comparable resources and materials to those in Addis, only there is a more difficult access to raw materials as they have to come from Addis. Hope is a charitable organization, so students do not have to pay tuition fees. Students from vocational education sell things for people outside the branch. There are plans to move the restaurant outside the campus for making profit. Selling own products and services is allowed, when it is in relation to education and the benefits are not more than the costs. There is a restriction of students per class, but almost all the first choices of students are met. According to the MDF Evaluation (MDF, 2005) staff is motivated; Hope is a mission as well as a career opportunity. Appraisal of staff is done every six months. There are certain opportunities for instructors to do workshops, for example for enhancing mutual learning, coordination and rejuvenation. Most of them are following evening classes at university or higher education at own costs. In 2001/2002 there were 11 instructors in Dessie. From 2004 on there is a separate instructor for small business management. It is difficult to get good instructors in Dessie, because Addis is highly preferred.

Demand from labour market is investigated through asking former graduates, government, employers and among other things searching local newspapers by the job placement manager. If there is less or no demand training is upgraded or stopped. Hope Enterprises has achieved good relationships with local government institutions (District office of Labour and Social affairs, Education and DPPC) and is one of the few national NGO's that is well respected by government institutions and a leading actor within the NGO-community in Ethiopia. It actively works on coordination and cooperation between NGO's and on advocacy towards government. It also has good relationships with community governments (committees). Despite of this they do not get financial support from government. District government have only provided access to land for Hope schools and accreditation of their education. Networking with other VTC's is done through CRDA, a union of different NGO's. Hope has started a separate VTC-group within this union. There are plans to start a training centre for hotel-service outside the campus, which could also be used as a guesthouse/hotel. In both VTC's there is a good relationship with companies in the neighbourhood.

3.2.5 Conclusion

Now the results of the document analysis of partner-organizations within three developing countries are described, the following could be concluded, referring to research-question 2a; **What are issues and challenges related to the quality of vocational education in projects of partner-NGO's of Woord en Daad?**

To explore more about the quality of VET from an empirical perspective, document analysis of partner-NGO's in three countries is chosen. This is done on a broad level, because taking into account the context of a VET-situation is very important in improving or starting VET-projects. Therefore, before focussing on one specific project within one context, in the document analysis several VET-projects are discussed within different contexts. This explains why the document analysis also contains an overview on the country and the role of VET within its educational system. The results of this document-analysis are based on information available at Woord en Daad (files with visit-reports, correspondences and other project information) and therefore do not give a complete overview of quality-related aspects of these projects. They do give an insight in the main issues, trends and challenges within different contexts and show these are very much comparable in this study. Main issues, from the three countries compared, can be recognized in Table 7 below and again these are classified according to the five categories of quality. Challenges will follow from these issues and therefore will be explained at the end of this sub-paragraph.

Table 7. Main issues from document analysis

Category	Main issues Burkina Faso	Main issues India	Main issues Ethiopia
1. Goals	<p><u>economic goals:</u></p> <ul style="list-style-type: none"> <li>- Improving the position of poor children and install them in the economical circuit after graduation.</li> <li>- mainly for dropouts</li> </ul>	<p><u>economic goals:</u></p> <ul style="list-style-type: none"> <li>- Improving the position of poor children and install them in the economical circuit after graduation.</li> <li>- build a bridge between labour market and private education sector.</li> <li>- mainly for dropouts</li> </ul>	<p><u>economic goals:</u></p> <ul style="list-style-type: none"> <li>- Improving the position of poor children and install them in the economical circuit after graduation.</li> </ul>
2. Content	<ul style="list-style-type: none"> <li>- <u>vocational courses:</u> mostly specific technical, some social trainings</li> <li>- <u>social courses:</u> common courses like ethics, English, Mathematics and computer courses</li> </ul>	<ul style="list-style-type: none"> <li>- <u>vocational courses:</u> mostly specific technical, some social trainings, e.g. tailoring training especially for girls.</li> <li>- <u>social courses:</u> common courses like ethics, English, Mathematics and computer courses</li> </ul>	<ul style="list-style-type: none"> <li>- <u>vocational courses:</u> mostly specific technical, some social trainings.</li> <li>- <u>social courses:</u> common courses like ethics, English, Mathematics and computer courses</li> </ul>
3. Processes	<ul style="list-style-type: none"> <li>- <u>method:</u> 30% theory, 70% practice,</li> <li>- <u>location:</u> on-the-job: apprenticeships and off-the-job at the VTC;</li> <li>- <u>organization:</u> non-formal;</li> <li>- <u>systems:</u> parallel</li> <li>- <u>offerer:</u> private;</li> <li>- <u>length:</u> 4 years</li> </ul> <p>- chain process from primary until VTC (+ CAP/BEP)</p>	<ul style="list-style-type: none"> <li>- <u>method:</u> 30% theory, 70% practice,</li> <li>- <u>location:</u> on-the-job: apprenticeships and off-the-job at the VTC;</li> <li>- <u>organization:</u> non-formal;</li> <li>- <u>systems:</u> parallel, differentiated</li> <li>- <u>offerer:</u> private;</li> <li>- <u>length:</u> 1 year (some even 6 months), 6 days a week</li> </ul>	<ul style="list-style-type: none"> <li>- <u>method:</u> 30% theory, 70% practice,</li> <li>- <u>location:</u> on-the-job: apprenticeships and off-the-job at the VTC;</li> <li>- <u>organization:</u> formal;</li> <li>- <u>systems:</u> no information available</li> <li>- <u>offerer:</u> private;</li> <li>- <u>length:</u> 1 or 2 years</li> </ul> <p>- chain process from primary until VTC</p>

<p>4. Effects</p>	<ul style="list-style-type: none"> <li>- employment rate of 80% is striven for (within 1 year after training). No results known yet;</li> <li>- first graduates in 2005: 42 of 60. 17% went on to middle technical education;</li> <li>- employment difficult: young age (16-19 years), employers prefer family-members</li> </ul>	<ul style="list-style-type: none"> <li>- employment rate of 60-70%</li> <li>- many dropouts</li> </ul> <p><u>Stimulating factors:</u></p> <ul style="list-style-type: none"> <li>- job mediation</li> <li>- cooperation with industry</li> <li>- follow-up for 1 year</li> </ul>	<ul style="list-style-type: none"> <li>- employment rate of 80-85%</li> </ul> <p><u>Stimulating factors:</u></p> <ul style="list-style-type: none"> <li>- job mediation</li> <li>- good contacts with labour market, but no cooperation (yet)</li> <li>- stimulation of SME-development</li> </ul>
<p>5. Resources and Conditions</p>	<p><u>Resources:</u></p> <ul style="list-style-type: none"> <li>- qualified personnel hardly available.</li> <li>- Resources especially budget, are a big problem.</li> </ul> <p><u>Conditions:</u></p> <ul style="list-style-type: none"> <li>- accessibility: distance between school and the living place of students is (too) big;</li> <li>- parents committees help to fulfil students' needs.</li> </ul>	<p><u>Resources:</u></p> <ul style="list-style-type: none"> <li>-sell materials and services sometimes</li> <li>- availability of instructors rather well</li> </ul> <p><u>Conditions:</u></p> <ul style="list-style-type: none"> <li>- accessibility: trainings mostly for 13-17 year old boys, for students with a minimum of primary education. There is a written and oral entrance test;</li> <li>- take into account willingness of parents.</li> </ul>	<p><u>Resources:</u></p> <ul style="list-style-type: none"> <li>- sell products and services sometimes</li> <li>- availability of instructors rather well</li> <li>- well established contacts with several parties (NGO's, government and industry).</li> </ul> <p><u>Conditions:</u></p> <ul style="list-style-type: none"> <li>- accessibility: girls/boys ratio almost 50/50. There is a written and oral entrance test;</li> <li>- Hope is a role model for the government (30 years' experience).</li> </ul>

From this comparison can be concluded that main quality issues of the partner-NGO's in the three countries are very much comparable. Main issues related to **goals** are that all the partner-NGO's in the three countries combine economic and social goals, despite that they do not mention social goals explicitly. Only partner-NGO's in Burkina Faso and India focus on dropouts more than in Ethiopia. Some mainly focus on boys or on girls or especially on drop-outs. Proceeding on the combination of social and economic goals, all partner-NGO's offer a **content** of vocational skills as well as social skills like ethics, norms and values. The latter shows they indeed pay attention to the social goals of VET. One difference in the **process** offered by the different partner-NGO's are the lengths of the trainings offered (varying from six months to four years). Besides this another difference is the fact that VET from the partner-NGO in Ethiopia mostly is offered in a *formal* way and in Burkina Faso and India mostly in an *informal* way. The partner-NGO's in India and Ethiopia handle the chain process from primary into vocational education. All the partner-NGO's in the three countries offer a *combination of on- and off-the-job* education through offering apprenticeships besides training in their centres. They also all offer 30% theory and 70% practice, CREDO in Burkina Faso copying this from Hope Enterprises in Ethiopia. The discussion from the literature analysis about offering general or specific subjects is not recognized in the document analysis. Related to **effects** *job mediation* seems more developed in projects of partner-NGO's in India and Ethiopia than those in Burkina Faso. The employment-rates from the partner-NGO's in Ethiopia and India are rather high (from 60% up to 85%). Projects of CREDO in Burkina Faso still are pioneering projects. Because the first batch graduated in June 2005, numbers of employment are not available yet. They are striving for 80% within one year after training. In India industry gives feedback about the training-content and offers materials to use in the VTC. Cooperation with industry of CREDO is in an initial stage. Related to **resources**

**and conditions** there is a lack of schools in Burkina Faso. Because of this a lot of children are excluded from joining VET. Besides this the distance between school and living is often a problem. In general Ethiopia and Burkina Faso are comparable countries in case of literacy rate, life expectancy and dependency on agriculture. However, because Hope in Ethiopia has already many years of experience in VET in contradiction to the country as a whole they differ a lot from CREDO in Burkina Faso. Because the VET-sector is very new in Burkina Faso it is hard to find qualified personnel. In India parents' influence sometimes is difficult to cope with. The *status* of VET still is low in the three countries, but maybe extra low in India compared to the other countries because of the caste system.

From these issues the following main challenges float to the surface. **Overall** in Burkina Faso the VET-sector has to be developed more, so that more schools are available to include more students and more teachers will be available. Concerning the **effect** of VET-projects of the partner-NGO in Burkina Faso job mediation and cooperation with industry could be developed more. The latter also counts for Hope Enterprises in Ethiopia. This cooperation mainly is useful for exchanging knowledge, feedback and materials like the partner-NGO's in India. A challenge for all the countries, but mainly for partner-NGO's in India is raising the status of VET.

Now it is clear that issues, trends and challenges related to the quality of VET of the partner-organizations described, overall are comparable, it is useful to zoom in further to one VET-project of one of the partner-organizations described. Therefore in the following paragraph a focus is laid on the lowest level of VET; on one promising Vocational Training Centre (VTC) of a partner-NGO of Woord en Daad.

### 3.3 Case study of a promising project

Now a document analysis is done on a broad level, a first orientation on issues, trends and challenges related to quality of VET-projects within different contexts is achieved. To orientate further on the practice of VET and to receive more input for designing the practical guidelines, as also recommended by the experts involved in phase 1b., in this study the scope of the empirical analysis is restricted even further. Therefore, a promising project of one of the partner-NGO's of Woord en Daad is selected for a case study. In this paragraph the detailed design (paragraph 3.3.1) and the results of this case study (paragraph 3.3.2) are given. Finally, in paragraph 3.3.3 conclusions will be drawn from the results.

#### 3.3.1 Research design

The first goal of the empirical analysis is to orientate on real practice of VET and to receive input for designing the practical guidelines. As recommended by the experts involved in phase 1b. in this study the scope of the empirical analysis has to be restricted even further than the document analysis. Therefore one VET-project of a partner-NGO of Woord en Daad is selected. To get as much information as possible, in a limited amount of time, the focus is on a promising vocational education project. Therefore to achieve the goal the following question will be answered; *2b. What are characteristics of quality of vocational education of a promising project of a partner-NGO of Woord en Daad?*

#### Selection case and research approach

To get as much information as possible, in a limited amount of time, the focus is one of the projects of the partner-NGO's described in the document analysis. Selecting a rich-case (extreme case sampling) is most useful in this study, because of the limited amount of time and to get most input for the design of the guidelines (Yin, 2003). Projects in India and Burkina Faso are not suitable because of the following reasons. India is a very big country, in which every state can be seen as a separate country. This country also has a very different culture compared to other partner-countries, which makes it difficult to generalize results. Burkina Faso is not suitable because of a

practical reason; the researcher is not master of the official language, which is French. According to Woord en Daad the Vocational Training Center (VTC) Addis Abeba of Hope Enterprises in Ethiopia is an extremely successful project compared to others. Because of these reasons this VTC is chosen for answering question 2b.

To closely observe one project and its environment and deeper interactions with people involved (Yin, 2003), the case study method is a suitable method. Therefore in this study, to obtain different perceptions concerning the educational policy and its implementation, the curriculum, one in-dept case study is done.

According to van den Akker (2003) a curriculum has three levels of representations; intended, implemented and attained. Each of these levels has two divisions; an ideal and an actual view. This conceptualization of the curriculum is shown in Table 8. In the next part representatives of each level are selected.

Table 8. Conceptualization of the curriculum (van den Akker, 2003)

Level	Division	Representation
Intended	Ideal	Vision (rationale or basic philosophy underlying a curriculum)
	Formal/written	Intentions as specified in curriculum documents / materials
Implemented	Perceived	Curriculum as interpreted by its users (especially teachers)
	Operational	actual process of teaching and learning (curriculum-in-action)
Attained	Experiential	Learning experiences as perceived by learners
	Learned	Resulting learning outcomes of learners

### Respondents

To get a comprehensive view on quality of VET, stakeholders with views on policy (intended), teaching and learning process (implemented) and effects (attained) are selected. The board of Hope for example, looks from an 'intended' viewpoint, teachers from an 'implemented' viewpoint and students from an 'attained' viewpoint. Table 9 shows an overview of which respondents represent which level best. Firstly, the results contain the perceptions on quality of VET in general, given by representative respondents of each level of the curriculum. Secondly, the results contain perceptions on the quality of the actual curriculum of the VTC according to the different respondents and shows reasons why this project is a promising practice. Finally, aspects to be improved about the VTC are dealt with. Through using multiple sources of information, from different perspectives, triangulation is achieved here (Swanborn, 2001).

Table 9. Representative respondents per level and related interview-topics

Curriculum level	Topics to be asked from representative respondents
Intended	<u>The manager of the VTC, the branch manager, the (executive) director and the board of Hope</u> will be asked about the quality of the VTC, what they want to achieve with their VTC, why they made certain choices in content and processes, about effects the VTC, about the cost-benefit relationship and about the integration into the environment and the perspectives for students. <u>The Regional and Zonal Education Bureau and the Ministry of Education and the Chamber of Commerce</u> will be asked about the goals and quality-aspects of the VTC-sector and about the relationships of Hope VTC and their knowledge of and anticipation on the demand from labour market.
Implemented	<u>Instructors</u> will be asked what they think of quality, why they teach the students, what kind of training they offer in what circumstances, how they are educated, their opinion about available learning environment, their relationship with employers, knowledge of demand from labour market and whether they evaluate their training.

<p>Attained</p>	<p><u>Trainees and graduates</u> will be asked about the quality of the VTC, their background, why they follow the training, their satisfaction about the training, if they know drop-outs, success stories, how they think about the learning environment, why they chose the VTC and what they think their perspectives are. Graduates are asked about the connection between training and labour market.</p> <p><u>Employers</u> will be asked about the quality of the VTC, the quality of the students, the kind of skills trained, their relationship with the VTC and the suitability of students for labour market.</p>
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Because on forehand the context was not clear, opportunistic sampling is used. This means that exact number and priority of respondents will become clear during the case study. This sampling strategy namely takes advantages of unexpected opportunities and follows new leads during the study (Miles & Huberman, 1994). Within this sampling strategy priorities are set on certain groups of participants. Because the implementation of the curriculum (curriculum-in-action) is central in this case study, an accent firstly is laid on all the instructors. Secondly at least some of the graduates, some employers and some people of the management should be interviewed.

### Data collection and analysis

Through observation in the real context and conducting interviews in combination with studying several documents, a thorough insight in the way vocational education is organized and the reasons why it is organized in a certain way will be obtained. Again the classification of quality used by the Ministry of Educational Affairs in The Netherlands (1981, in Lagerweij & Lagerweij-Voogt, 2004) is used as a framework for the interviews. The interviews are structured and mostly contain open questions (see appendix 3 for the interview guide). An assumption made is that people mention first what they think is most important. Questions to be asked for every element:

- What does this element mean?
- Is this element implemented/ thought about?
- In what way is it implemented?
- What do you think about this quality-element? Is this opinion based on visions or on implementation? Is it current or desired quality?
- How important is it to you?
- All respondents should also be asked how the current situation could be improved.

To get an impression of the practice within the school observation of a few theoretical as well as practical lessons will be used. Besides interviews and observations, documents are studied of which results are assimilated in paragraph 3.2.4. Appendix 3 also shows a detailed planning of several activities and interviews to be done to complete the case study.

In the next part the results of the case study are given, classified according to the 5 categories of quality. Again these 5 categories are dealt with on each of the three levels of the curriculum.

### 3.3.2 Results

The result of the opportunity sampling method used to select the number of respondents to be interviewed are shown in Table 10.

Table 10. Number of respondents per group

Group	Number
Instructors	12 (individually)
Graduates	12 (some in groups)
Employers	4 companies: 7 respondents
Management VTC/Hope	4
Trainees	4
Governmental agencies and chamber of commerce	3 agencies: 4 respondents

Besides these respondents, also two other VTC's (one governmental and one non-governmental) were observed during a short visit, to get an impression about other training centers. Respondents were asked about characteristics of quality of vocational education. All the aspects mentioned by different respondents are listed according to the three levels of the curriculum; intended, implemented, attained. Only explicitly mentioned aspects are discussed. 'Explicitly mentioned' means that they mentioned these aspects as an answer to an open question, so they were not forced to say any of them. An assumption made in this respect is that if they mention an aspect they really think it is an important one. In the following the perceptions on quality of VET in general on every level of the curriculum are given. Besides that the formal, operational and learned curriculum of VTC Addis Abeba is given. Finally aspects to improve the current situation of VTC Addis Abeba are explained for every level of the curriculum. These are based on the difference between general perceptions on quality and the actual curriculum of VTC Addis Abeba.

### Intended

The intended level of the curriculum is represented by four respondents belonging to the management of the VTC and four belonging to governmental agencies and chamber of commerce.

#### *Management of Hope*

##### Perceptions on quality of VET in general

Two out of four of the management of Hope mention completing the training and getting a job as the main **goals** of VET. The two others mention the combination of social and economic goals to be very important. According to the latter attitudes need to be changed and students need to learn to become good citizens. As the director of Hope says concerning **content** *"Besides teaching skills, attitudes must be changed to a more initiative, innovate mind"*. The majority of the management mentions additional courses in life skills and work-ethics, curriculum standards or policy and apprenticeships as important. All of the respondents from the management mention **resources** like up-to-date and sufficient workshop with accessory equipments and materials, up-to-date and sufficient number of instructors and practice as an important aspect for vocational education. Half of them mentions the importance of the management to be open, visionary, flexible and creative.

##### Formal curriculum at VTC Addis Abeba

Current **goals** according to respondents from the management are teaching skills and changing attitudes for becoming good citizens and getting a job. They select the poorest of the poor. Related to **content** extra courses in life skills, Bible lessons, ethics, HIV are given besides the curriculum of the government. Norms and values are integrated in all courses and besides that every student learns to work with the PC. Related to **processes** all trainings are formally accredited and therefore the government's curriculum is used, which unfortunately is too theoretical. According to the management Hope has better apprenticeship-placement and better practical education (70%) than other VTC's. The number of students placed on the job effectively is the measurement of the **effect** of the trainings At the moment this is a

positive rate of 80-85% according to the management. To stimulate the effect of the training the management claims Hope to have good interaction with companies, with other NGO's and with government. Demand from labour market is said to be investigated through asking graduates, government, employers, local newspapers, reference books, Internet. A Job Placement Manager is guiding students onto labour market and already three businesses are organized under Hope. Related to **resources and conditions** the management claims the following. Their personnel has a spirit for their work, teachers actually do have knowledge (some say too much theoretical), but not enough yet. Reference books are being copied because budget is too small to buy books or any other material or equipment. Hope has an attitude of helping and a willingness to change and discuss. External and internal analyses are done often and Hope has to be increasingly transformational. 99% of interest of students is met.

#### Aspects to improve at VTC Addis Abeba

The first aspect the management mentions to improve is the governments' curriculum. The **content** is too theoretical; the 70% allocated to practice is not the real practice. Besides that more norms and values should be integrated. The time allocation to the different parts of the **process** is not realistic and VET should be given after grade 12. The majority of the management mentioned the availability of up-to-date **resources**; workshops and accessory materials and equipment as one of the main aspects to improve. The capacity of instructors is even mentioned to be improved by all of them.

#### *Governmental agencies and Chamber of Commerce*

#### Perceptions on quality of VET in general

Three out of four respondents from governmental institutions mention practice, and apprenticeships as important aspects of the **process** of VET. Besides that the majority also mentions responsiveness to needs of the labour market as important aspect for the **effects** of VET.

#### Formal curriculum at VTC Addis Abeba

Current unemployment is still high. Therefore the current curriculum is being revised to become more outcome-based, practice oriented and demand-driven. Students cannot continue from VET to higher education. Private sector is being involved more, introducing in-company training.

#### Aspects to improve at VTC Addis Abeba

All of them mention the fact that the VET-curriculum of the government has to be revised; the **content and processes** must be more demand-driven instead of government-driven, instructors and people from the world of work should help in the design and instructors should also be more trained more practice oriented. Half of the group thinks the training **process** should be changed; companies should also be integrated into the system, offering in company, private training. Half of them also say that the door must be opened for further study after VET. The apprenticeship program should be changed according to all of the respondents in this group; companies should be more willing to offer apprentices, but on the other hand apprenticeship offering companies should be more respected. Apprenticeships should not be offered all at the same time, so that not all students enter labour market at the same time.

### **Implemented**

The implemented level of the curriculum is represented by twelve instructors of the VTC exclusively.

#### Perceptions on quality of VET in general

Instructors mostly mention aspects which relate to categories **content, processes and resources and conditions**. The three aspects mentioned by the majority of the instructors which relate to the latter are up-to-date and sufficient number of instructors, up-to-date and sufficient number of workshops and accessory materials and equipment and practice. About a third also mentions relationship with

management, other personnel and some even mention students and apprenticeships and interest of students to be important aspects in VET.

#### Operational curriculum at VTC Addis Abeba

Instructors use the curriculum guide for the educational **process** which is judged to be too wide and not practical enough. Social skills are integrated in the **content** of the courses. Apprenticeships are included in the **process** and are going very well. Some mention the length of the training should be longer (more than two years). Others mention the employment-rate to be high (90%). Related to **resources and conditions** they mention the need to update the quality and number of machinery, tools and workshops. This mainly is difficult because of lack of budget. Despite of that some think they do better than other schools in this respect. Other positive things about Hope are: better class-size than others, adding experience to the curriculum, good relationship with employers and among personnel, actively searching for jobs, innovatory management and a good commitment.

#### Aspects to improve at VTC Addis Abeba

The main aspects to improve, mentioned by the majority of the instructors again are related to **resources and conditions**; the capacity of instructors and the availability of up-to-date workshops and accessory materials and equipment. However, almost all of the instructors of the hotel and home services training praise their practice-opportunities and equipment. About a third mentions the need to improve the class-size, the knowledge exchange and the level of the English language. 4 out of 12 instructors mention the **content** and **process** of the governments' curriculum needs to be changed. Comments are; students are too weak after grade 10 to do technical jobs, therefore education must be after grade 12. The trainings are too wide and often too short. More classes in English should be integrated in the training.

### **Attained**

The attained level of the curriculum is represented by twelve graduates and seven employers.

#### *Graduates*

#### Perceptions on quality of VET in general

Again also in this group the majority of the respondents mention an aspect related to **resources**; up-to-date and sufficient number of instructors to be important in VET. Besides that all of them mention the importance of practice in the **process**. However they sometimes missed some specific **content** in the training they indicate that the amount of practice and the possibility to apply most of what they learned in the training is important to give them confidence in the job.. Interest of students is mentioned as an important **condition** by half of the graduates and about a third mentions the importance of up-to-date and sufficient workshop with accessory equipments and materials in VET.

#### Learned curriculum at VTC Addis Abeba

The training **content** links up with the work very well, amount of practice was good: *"Because I have had enough practice in the training, I have enough confidence to do the job"* (Berihun Glepziabher- graduate). The group of graduates being plumbers indicates that other employees ask them for information and explanation. Some other graduates have passed entrance tests easily and one graduate was selected when 700 out of 2000 were hired. This proves that they perform better than other graduates. They are satisfied about the instructors: *"In other schools there is not such a relationship with instructors like at Hope. We can always return to our instructors to get more information"* (Giselase, Tadesse, Derlaebo- graduates).

#### Aspects to improve at VTC Addis Abeba

All of them think **resources**, like workshop and accessory equipment should be improved in the current situation. Some of the graduates work with more up-to-date

machinery, but others have fewer resources at the job. About half of the graduates mention the content which should be more up-to-date and more practice should be integrated in the training **process**. Most of these were also mentioned to be good in the present situation, but it could always become better.

### *Employers*

#### Perceptions on quality of VET in general

The majority of the respondents in the group of employers mentions up-to-date and sufficient number of **resources**; instructors as well as workshops and accessory materials and equipment to be important in VET. Besides that related to the VET-**process**; practice, curriculum standards and policy are mentioned to be important. Interest of students is an important **condition**. Besides these only some mention performance, additional ethics courses, apprenticeships and good health as important aspects.

#### Learned curriculum at VTC Addis Abeba

Four out of seven respondents of the employers mention students of Hope to be better than others, one says they are backward and two say it is difficult to compare. None of the employers has seen at the VTC and therefore are not able to say more about the process and content.

#### Aspects to improve at VTC Addis Abeba

Practice in the **process** is mentioned most as an aspect to improve. Employers seem not to be very involved in the VTC. Some can not give comments on the equipment because they do not know the circumstances in the VTC. Striking is that some of the employers even do not have comments on what to improve in VET, while they offer VET in a VTC themselves, besides having a company.

### 3.3.3 **Conclusion**

Now the results of the case study of one of the projects of a partner-organization is described, the following could be concluded, referring to research-question 2b; ***What are characteristics of quality of vocational education of a promising project of a partner-NGO of Woord en Daad?***

To closely observe one promising project and its environment and deeper interactions with people involved the case study method was chosen to answer this question. Different perceptions concerning the characteristics of quality of the educational policy and its implementation, the curriculum, are gathered. The added value of this case study compared to document analysis is being able to gather first-hand information, to ask more and deepening questions, to involve more parties and and to place information better into context. Representatives of three levels of the curriculum are asked for their opinion. Because the results of the case study only discuss 'explicitly mentioned' aspects, the list of aspects mentioned might not be complete. Due to several reasons, for example time restrictions, respondents might not mention all the important aspects. However, as stated earlier, the assumption that respondents mention the most important aspects first still stands. The comparison of the three levels gives an insight in most important characteristics of quality of the promising project. Despite of some differences in mentioned aspects, it can be concluded that these do not contradict each other, but mostly are complementary to one another. It can also be concluded that the VTC is doing well with available resources and therefore indeed is a promising project, an example for others.

In the following firstly, main differences and similarities between the three levels or even within the levels of curriculum are discussed. These lead to an overview of main characteristics shown in Table 11. Although the VTC is a promising project, there always are aspects to improve. These are given at the end of this paragraph.

### Characteristics of quality on different levels

Below, different perceptions of main characteristics of quality at the three levels of the curriculum are compared. When mentioning the management of Hope in the text below, only the respondents belonging to this group used in this study are meant, not all the persons of the management in real practice. This terminology is used for all groups in the following.

At **intended level** the majority of all the respondents agrees on the importance of additional courses in life skills and ethics, practice, apprenticeships and curriculum standards in VET. Additional courses and apprenticeships besides the government curriculum are mentioned in the actual view to be factors of success at the VTC of Hope. The current curriculum of the government is too theoretical and sometimes does not fit the job. The management mentions to have good relationships with industry, NGO's and government. Additionally they acknowledge the importance of workshops with accessory equipment and materials and well-equipped and sufficient amount of instructors in VET. In the actual view they mention their personnel to have a spirit for their work, but do not have enough up-to-date and practical knowledge. The number of machines and equipment is workable, but still not enough. They are not up-to-date either. The relationship between personnel, management and students is also mentioned to be important in VET by all of them. The management thinks at Hope this relationship is good. The majority of the other respondents at this level; governmental agencies and chamber of commerce mention the importance of responsiveness to labour market. In their perception of the formal curriculum on VET in general unemployment is still high and the curriculum needs to be revised to become more outcome-based, practice oriented and demand-driven. In the formal curriculum of Hope demand from labour market is investigated by different parties involved. A Job and Business center helps students to find a job or to set up their own businesses.

Logically respondents at **implemented level** mainly mention aspects related to the implementation of VET at school-level to be important. The majority mentions practice, workshops and accessory equipment and materials and well-equipped and sufficient amount of instructors. The operational curriculum at the VTC of Hope (actually the curriculum of the government) is found to be too wide and not practical enough. Some different opinions about the workshops and equipment can be recognized, as some say there are enough and others say there should be more. This aspect is mentioned to be difficult to keep up with due to a lack of money.

At **attained level** the same aspects as at implemented level were mentioned to be important in the experiential curriculum. However, less than half of the students mention workshop and equipment to be important despite these are needed to organize practical training in the training centers. Graduates mention the importance of up-to-date content and the majority of employers mention the importance of curriculum standards. According to the learned curriculum of the VTC the content as well as the process links up with practice very well. They are also very satisfied with the relationship with instructors. Strikingly apprenticeships are mentioned to be important by less than half of the employers and graduates even do not mention it at all. Interest of students is mentioned to be important by the majority of this group. According to the actual view the majority of the employers acknowledge students of Hope to be better than others.

The different groups of respondents mention different aspects of the ideal and actual curriculum at Hope. No big contradictions are found: the aspects mentioned mostly are complementary to one another. The actual curriculum of Hope corresponds very well with the ideal picture of VET in general. Therefore it can be concluded that Hope is doing very well with available resources. They are adding extra hours of social courses and apprenticeships to the government's curriculum. They claim to really offer 70% practice and have a good class-size. Compared to others, students are found to be better skilled. They maintain good relationships with industry, other NGO's and government and even with own personnel and are open to change. In order to place

students on the job effectively they guide them onto the labour market through the JBC and keep a sustainable view in mind. Their employment-rate is very high: 80-85%. Additionally, considering the limited budget they have rather good equipment and materials. The main characteristics of quality together are shown in Table 11.

Table 11. Main characteristics of quality of VTC Addis Abeba

Category	Main characteristics of quality of VTC Addis Abeba
1. Goals	<p><u>economic goals:</u></p> <ul style="list-style-type: none"> <li>- Improving the position of poor children and install them in the economical circuit after graduation.</li> </ul> <p>social goals:</p> <ul style="list-style-type: none"> <li>- changing attitudes to a more initiative, innovative mind and teaching students how to become good citizens.</li> </ul>
2. Content	<ul style="list-style-type: none"> <li>- <u>specific vocational skills:</u> mostly technical, some social trainings.</li> <li>- <u>social skills:</u> additional courses in ethics and life skills (on one hand for improving the confidence of students, on the other hand for achieving cultural change towards a working culture) besides common courses in the curriculum like civics, English, Mathematics and ICT.</li> </ul>
3. Processes	<ul style="list-style-type: none"> <li>- <u>method:</u> an accent on practice (at least 70%);</li> <li>- <u>location:</u> on-the-job: apprenticeships and off-the-job at the VTC;</li> <li>- <u>organization:</u> formally accredited: usage of curriculum standards</li> <li>- <u>length:</u> minimum of two years</li> <li>- <u>class-size:</u> teacher-studentratio (max. 25 students per class)</li> </ul>
4. Effects	<ul style="list-style-type: none"> <li>- high employment rate: 80-85%</li> </ul> <p><u>Stimulating factors:</u></p> <ul style="list-style-type: none"> <li>- guidance of students onto labour market, stimulating (self)employment (Job &amp; Business Center).</li> <li>- goals, content, processes and resources all adjusted to labour market demands</li> <li>- good contacts with labour market</li> </ul>
5. Resources and Conditions	<p><u>Resources:</u></p> <ul style="list-style-type: none"> <li>- up-to-date and sufficient amount of resources: instructors, materials and equipment. Instructors being more important than materials and equipment.</li> <li>- well established contacts with several parties (NGO's, government and industry).</li> </ul> <p><u>Conditions:</u></p> <ul style="list-style-type: none"> <li>- an open attitude towards external parties (government, industry);</li> <li>- flexibility and willingness to change</li> <li>- sustainability</li> <li>- interest of students</li> <li>- relationship between personnel, management and trainees</li> </ul>

When selecting the VTC Addis Abeba for the case study, this project was admitted to be a promising project. Some of the characteristics mentioned in Table 11 show unique characteristics of VTC Addis Abeba, thus in what way it distinguishes itself from others. Firstly, Hope uses economic as well as social goals and therefore offers vocational as well as common courses. They even offer extra common courses like ethics, life skills and HIV and offer extra hours of training and apprenticeships besides the curriculum of the government. Another characteristic is that ICT is integrated in all courses and trainings are formally accredited to be able to compete for governmental jobs. 70% of the trainings contain practice and a maximum of 20 students per class is allowed. Instructors are devoted to their work and eager to learn. The VTC has good contacts with industry, other NGO's as well as with the government. The government even copies aspects of VET from the 30 years' experience of Hope. The apprenticeship-program is very successful, also due to good contacts with industry stimulate. Hope excels in an attitude of helping others and having an open, transparent and flexible policy. They are aimed at sustainability: their graduates are the employers of the future.

### Quality-aspects to improve

From the latter can be concluded that the VTC Addis Abeba is doing very well with the resources available. Therefore indeed it appears to be a promising practice. Despite of this, several quality-aspects to be improved are mentioned. Although it must be mentioned that these mostly are beyond the scope of the project. The aspects mostly relate to governments' decisions about the curriculum or budget-related aspects like availability of resources. In the following the aspects are explained in detail.

Almost all respondents in at the **intended level** agree that the current curriculum of the government should be changed; among other things it needs to be more demand-driven and more practice-oriented. In contradiction to governmental agencies and the chamber of commerce the management of Hope does not mention apprenticeships to be improved. This can be explained by the fact there is no need for change at VTC Addis Abeba as it is going very well at the moment. Additionally the management of Hope acknowledges the need to improve workshops with accessory equipment and materials and well-equipped and sufficient amount of instructors. A majority mentions additional courses in life skills and ethics to be improved in the current situation. The majority of the other respondents at this level; governmental agencies and chamber of commerce mentions responsiveness to labour market to be improved. Workshops and accessory equipment and materials and well-equipped and sufficient amount of instructors are the main aspects to be improved according to the **implemented level**. The majority at the **attained level** agrees the amount of practice should even be more than the current 70%. Besides this half of the graduates mention up-to-date content to be improved.

In every group of respondents a certain part agrees that the governments' curriculum needs to be changed. It is too theoretical; the 70% allocated to practice is not the real practice. Besides this some respondents claim that time allocation to different subjects is not realistic, more norms and values should be integrated and VET should be given after grade 12. In contradiction to findings from the literature analysis where improvement of responsiveness to the demand of labour market is mentioned as very important, only a quarter of the employers in this case mentions this aspect to be improved. Although current percentage of practice already is 70, certain people within all the groups (even half of the employers) mention this needs to become even more. Logically the majority of all the groups mentions the improvement of up-to-date and adequate amount of resources, like workshops, equipment, materials and instructors. The biggest problem in this respect is the lack of money to provide these resources.

## 4 Conclusions, discussion and recommendations

Now all results of the study have been described and conclusions within the phases have been drawn, in this chapter all these findings are gathered. Main conclusions will be drawn in paragraph 4.1 through answering the overall research question of this study. In this paragraph also a reflection on the research method of this study is given. In the second paragraph the most important discussions, which follow from the conclusions, are elaborated. Finally, these conclusions and discussions together lead to recommendations, described in paragraph 4.3. In this paragraph the final version of the guidelines for partner-organizations of Woord en Daad is given.

### 4.1 Conclusions

This research consisted of two main analyses; a conceptual and an empirical analysis. The conceptual analysis resulted in a quality-card discussed with experts. In the empirical phase a view on practice is achieved through document-analysis of partner-NGO's in three countries and a case study on one promising vocational training center of partner Hope Enterprises.

The overall research question of this study is stated as follows:

***What are issues, trends and challenges related to quality of vocational education in developing countries and how do they influence the quality of vocational education provided by partner-organizations of Woord en Daad working in developing countries?***

To answer this question the literature analysis, document analysis and case study are compared, using the five categories of quality. In order to increase validity and reliability triangulation (Swanborn, 2001) is achieved through using these different sources of information (conceptual as well as empirical information). According to Miles & Huberman (2003) to get a more valid and reliable research and reduce the influence of the researcher (assumptions and bias) one could involve different people in the research. In this study this is done through involving experts as well as different groups of local people. At the end of the literature analysis, experts were asked their opinion about validity, relevance and usefulness of the first prototype of guidelines. In the case study several groups of local people are asked for their opinion about the quality of VET in general and of VET in their situation. To get the most information as possible, in a limited amount of time, which is useful for other partner-organizations, extreme case sampling is done.

Despite of the used methods to increase the validity and reliability of the study, this study also has some limitations. One limitation is the fact that in the literature analysis the focus mainly is on the whole VET-sector in developing countries, sometimes even in the whole world. Often VET-literature is about the public sector and little is said about the role of NGO's in offering VET. Although the literature analysis is useful in this study for achieving the first goal, this study mainly is meant for partner-NGO's of Woord en Daad. Therefore aspects from literature sometimes are less relevant than aspects from the empirical analysis.

Another limitation is the fact that only partner-NGO's in only three countries are analyzed in the document analysis using documents with limited information. The case study is done in a late stage of the study, and studies only one project in-dept. This is because this focus was recommended by the experts during this study. Besides that, because respondents in the case study did not always possess the skill of English talking, an interpreter was used during many of the interviews. Because this was done by an insider, results could have been influenced. It would have been better for the reliability to use a neutral person. A disadvantage of using opportunity sampling in the case study is that only a certain amount of respondents per group were asked, of

which the representativeness for a certain group is not really clear. Besides that, respondents could have given socially desired answers or could not have mentioned aspects because of reasons like time constrictions, beyond their power, shyness, logic of aspects or relation with other aspects.

Comparing the methods used to increase the validity and reliability with the limitations of the study, the following can be concluded. The results of the study can be found valid and reliable enough, concerning the circumstances (budget, time and information resources available) of this study. Therefore in the following main conclusions will be drawn concerning the overall research-question mentioned above. Firstly promising characteristics

### **Promising characteristics of quality and main challenges for the future**

In the following, main issues and challenges are classified according to the five categories of quality.

#### *Goals*

A combination of the economic and social perspective is important, which follows from the document analysis as well as the case study. The social perspective is often under-exposed in VET-literature, while from the document analysis and case study it indeed is found important. As this study mainly is meant for NGO's and literature focuses on the whole sector, the result of the literature analysis concerning this aspects is less relevant.

#### *Content*

Three kinds of skills can be recognized in literature; broad general vocational, specialized vocational and social skills. All these skills need to match with available jobs. The trend in this respect is to offer flexible, general VET to be able to respond to changing labour market. This trend is not explicitly recognized in the document analysis. In the three countries partner-NGO's of Woord en Daad offer specific vocational skills combined with social skills like ethics and norms and values. In the case study this is found in detail; besides specific vocational courses and common courses in governments' curriculum like English, Mathematics and ICT, the trainings contain social courses in ethics, life skills and values. However Hope educates for specific professions, results from the case study do show some examples of their flexibility to the changing labour market, for example in retraining youngsters to another profession in a few months.

Specific challenges resulting from the case study are as follows. Including additional courses in work ethics and life skills stimulates personal development of youngsters and cultural change. Another challenge is keeping course-content up-to-date in order to satisfy market demands. Stimulating English talking and listening in lessons is a challenges applicable to Hope Enterprises, which can also be a challenge for other projects. A visit of a foreigner with technical and English knowledge can be a stimulation for this.

#### *Processes*

In literature four main VET-systems can be recognized globally. Within these systems certain strategies have to be chosen on country-level. One of these choices concern the location of VET. In the literature analysis there appeared to be two main kinds of locations: on-or off-the-job. From the document analysis and case study it can be concluded that a combination of both is important. The apprenticeship-system plays an important role in this. The trend in literature is that responsibilities are shifted more to private sector and VET is offered more on-the-job. This can also be seen in the case study where the government of Ethiopia tries to involve the public sector in VET more. Another choice related to 'method' is the amount of practice in proportion to theory. In the case study at least 70% practice and 30% theory is desired. In literature a

promising example is found with 60% practice and 40% theory. Practice is done during apprenticeships, but also in workshops at the training center. A third choice concerning 'organization', resulting from the literature analysis, is offering VET formal, informal or non-formal by public or private providers. In the document analysis and case study VET is offered privately, as it concerns NGO's only. Both non-formal and formal education have their own purpose. In the document analysis non-formal VET appeared to be useful especially for dropouts. In the case study VET is offered formally to be able to compete for governmental jobs. From the literature analysis can be concluded that meeting needs of the target group is very important and besides that there is a need for extension of learning possibilities in VET. In the document analysis and case study the lengths of the trainings vary from six months up to four years. Unfortunately nothing is said about the lengths of the trainings in literature.

In literature the main challenge related to processes is exploring best ways of offering VET; enhance the trend of on-the-job learning or use new methods like distance learning and integrate more practice. In the case study more specific challenges are mentioned. The curriculum needs to be revised: VET should be offered after grade 12, duration must be 3 years, time allocation must be more realistic and apprenticeships should be longer. Integration of more practice (minimum of 60%, in the case study even more than 70%) is a factor of success and therefore a challenge following from the literature study as well as the case study. Besides this vocational (for job-market) and technical education (leading to further education) should be separated. For the latter opportunities should be created to continue studying after completing VET.

### *Effects*

According to literature VET can have two ways of follow-up: further schooling or (self) employment. In the document analysis and the case study VET is mainly meant for employment. Possibilities for further study after VET in Ethiopia are not available yet, but government is working on it. Besides that Hope Enterprises is stimulating entrepreneurship very well, resulting from the case study. In literature analysis, document analysis as well as case study the effects of VET are mostly measured by the number of trainees effectively working on the job. In literature demand of labour market appeared to be not met very well. This did not come forward that extreme in the document analysis and case study. In literature, document analysis as well as the case study, guidance of students onto labour market is seen as very important. At the NGO's in Ethiopia and India this is done through a Job and Business Center (JBC). It seems that the projects in India and Ethiopia have high employment rates (respectively 60-70% and 83%). However, nothing is said about this aspect in literature. Hope has good contacts with industry, other NGO's as well as with the government established, which helps them to adjust and improve their program and offer apprenticeships successfully. The government even copies aspects of VET from 30 years' experience of Hope Enterprises. Because of their good contacts with industry arranging apprenticeships is going very well.

From the literature main challenges related to effects are the stimulation of SME-development, creating opportunities for further study after VET, improve (bilateral!) cooperation with industry and stress importance of guidance. The connection to and cooperation with labour market (nationally and internationally) which helps meeting demands of labour market better is a big challenge in the document analysis and the case study as well. It also needs to be exploited more for exchanging knowledge and materials, like the good example in India, resulting from the document analysis. The need to pay more attention to job mediation, mainly in Burkina Faso, also came forward in the document analysis. Students evaluating instructors can be a challenge for improving the effects of VET, as an example from the case study.

### *Resources and conditions*

In literature-, document analysis as well as in the case study, up-to-date and adequate amount of resources like instructors, equipment and materials, are very important aspects of quality. Besides that equal accessibility, high status, good management,

foundation of stakeholders and basic conditions like water and electricity are necessary aspects leading from the literature analysis. A trend recognized in literature is that status is improving, mainly because governments are acknowledging the essence of VET for economic growth. The latter also can be recognized in the case study in Ethiopia. From the case study can be concluded that devoted instructors are very important. In practice they appear to be eager to learn. Other factors of success resulting from the case study are the limitation of students per class (max. 20). Acknowledgement by many stakeholders combined with an attitude of helping and an open, transparent and flexible policy is another factor of success. Besides that sustainability is important. Graduates in the case study are the employers of the future.

In this paragraph main issues and trends related to the quality of VET in developing countries are mentioned and compared. The correspondence between these issues and trends resulting from the literature analysis, document analysis and case study is rather well. The overall picture of VET in developing countries is that it is a developing sector. The importance of VET, mainly in developing countries is increasingly being acknowledged and therefore gets more attention. NGO's play an increasing role in providing learning opportunities, mainly to poor, disadvantaged and dropouts (Working group for international cooperation in skills development, 2004). Private providers of VET also seem to respond to labour market better than public ones.

Besides issues and trends, also challenges for the future are dealt with in this paragraph. The overall challenge in VET is quality-improvement with limited budget available. As a lot of NGO's are dependent on external donors, financing is one of the main problem concerning VET offered by NGO's. These financial constraints also count for partner-NGO's of Woord en Daad. High costs of providing up-to-date VET appeared to be a problem in the literature-, document analysis as well as the case study. Selling own products and services therefore is a challenge to gain more budget. Besides that sharing experiences and materials with other VTC's, universities and colleagues can be useful. Besides that materials, equipment and instructors need to be updated and the number needs to be extended. A specific solution resulting from the case study is installing a pc with an encyclopaedia as a solution for the shortage of good books. Teaching own teachers is mentioned to keep them up-to-date and practice-oriented. In literature also sustainability, innovation, flexibility (in relation to latter point) and is a big challenge. More (VET)schools should be developed, which is a specific challenge for Burkina Faso as a whole. Raising status comes forward as a challenge in literature, document as well as case study, mainly in India due to the caste system which is dominant in the culture. Coping with culture also is a challenge when parents' influence is sometimes causing troubles in offering VET or when, for example, girls are not allowed to go to school. While working on all these challenges, another challenges of raising status and creating awareness of the use of VET is dealt with.

One of the biggest differences between the conceptual analysis and the empirical analysis in this study is the integration of the social perspective. This perspective is underexposed in literature and very important in the empirical analysis. Another difference between conceptual and empirical analysis, related to the latter, is the degree of vocationalization and specialization, which is related to the content of VET. In literature broad general education is favored to be able to respond the fast changing labour market. However, as mentioned at the beginning of this chapter results from the conceptual analysis sometimes could be less relevant in this study than results from the empirical analysis. Therefore in the next paragraph these aspects and their relevance for partner-organizations of Woord en Daad are discussed further.

The biggest difference between ideal and actual situation in the conceptual- as well as the empirical analysis in this study is the relationship of VET with labour market. This aspect is also one of the main new challenges, resulting from literature as well as practice, and therefore is also discussed in the next paragraph.

## 4.2 Discussion

Now results and conclusions have been described, main issues, trends and challenges in VET have become clear. The main discussions float to the surface when comparing the main parts of this study: conceptual analysis with main issues, trends and challenges, document analysis with main issues and challenges and main characteristics of quality from the case study. As explained in the latter paragraph three main discussions can be distinguished; the importance of the social perspective, degree of vocationalization and specialization and the relationship between VET and labour market.

### *Importance of the social perspective*

One of the main aspects leading from the comparison of the three research activities is the fact that the social perspective is underexposed in the literature analysis, but plays an important role in the document analysis and the case study. In the literature study it seems to be that VET only needs to be reformed from an economic perspective and not much is written about the social perspective. In the document analysis as well as the case study the two perspectives are combined, which also influences goals, content and even effects of VET. Regarding goals, VET needs to stimulate the personal development and citizenship of the youngsters besides integrating them into the labour market. Regarding content social courses like ethics, life skills and citizenship are important aspects for VET.

The role of the social perspective also is a hot issue in the Dutch field of vocational education. Vrieze, Mok and Smit (2004) emphasize the difference between working and practicing a profession. The first means bringing ones knowledge and specific vocational skills into action and the second also contains the cultural and ethical side of working. In their research students in vocational education, even those in technical areas, indicate to be in need of the integration of career perspectives and dilemmas in work, like responsibility, cooperation, fellowship, honesty, participating in society. Therefore Vrieze e.a. (2004) claim that culture and ethics should be more integrated with specialized knowledge in vocational education This integration could also help to decrease the number of dropouts as more focus is laid on the individual and its development. Klep, Letschert & Thijs (2004) and the ERT (1994) also mention the social orientation of education, in which social and cultural integration of students are seen as the main roles of education besides economic integration. Participating in social networks as well as citizenship and norms and values are as much important as preparing students for labour market.

From the case study in Ethiopia can be seen that Ethiopia does not have a working culture. People stay with their family as long as possible, even without having a job. In order to increase the development of the country, Hope Enterprises wants to change their environment to a so-called working culture and therefore offering vocational skills only is not enough. Regarding effects of VET this means besides employment-rate, personal development and cultural change is important. The meaning of personal- and career development of youngsters, values and attitudes, citizenship and work ethics is not clear enough yet. Working on a job can give youngsters meaning to their personal life, next to serving the economy. As many cultures need to be changed towards a working culture one has to start changing from scratch. For example in Ethiopia youngsters often stay with their families as long as possible, as it used to be part of the culture for ages. But in a healthy society youngsters need to understand the use of working, of earning their own living instead of expecting money from their parents.

### *Degree of vocationalization and specialization*

As a conclusion from literature study about the content of VET many authors plead for flexible, general vocational education to be able to respond to the fast changing labour market. For example, Psacharopoulos (1991) mentions technological development goes too fast to predict. Even if technological development could be predicted, the

working life of an individual lasts long, and therefore one cannot stay in one occupation his whole life, especially not in a fast changing society. Besides in literature about VET in developing countries this is also an issue in the Dutch educational system. Flexibility and employability are main keywords in the discussion about broad availability of employees (VNO-NCW in Klep e.a., 2004). Van Aartsen (2004) mentions the importance of generic skills like reflection, decision making and self-knowledge in education. These skills are very important in professional practice and allow students to adapt adequately to changing professional and work situations. Van Aartsen (2004) mentions that these skills are closely related to specific vocational skills and therefore should be integrated in (rather than added to) specific vocational subjects. Questionable is if labour market indeed is changing fast in some developing countries and therefore if this discussion is applicable to the whole developing world. This discussion is neither mentioned in the document analysis nor in the case study. Besides this, when only general skills have to be offered, the importance of connection to labour market is not clear anymore.

An example from the case study shows saturation of the auto-mechanic market within a few years. Auto-mechanics-trainees followed two years of training in auto-mechanics, but at the time they were finished, the demand for auto-mechanics was down. However there was enough demand for auto-mechanics, garage owners preferred only family members as workers and therefore demand was prohibited to certain people. Then they got three months' training in plumbing and became plumbers. This three months training was enough, because they already had gained basic knowledge in mechanics.

Logically specific vocational knowledge still needs to be developed, also in a fast changing society. The right degree of vocationalization or specialization however is very difficult to establish. It depends on the speed of technological changes, on the demand of labour market, on the kind of profession and on the needs of the students. Especially children with low educational levels need to be educated to a specific subject faster, as it is difficult to keep them in education. However others claim these students will stay in education longer if they are not forced to choose one specific profession immediately.

#### *Relationship between VET and labour market*

Another important discussion is related to the context of VET; the relationship between VET and labour market. Cooperation with industry is very important in order to get feedback and to stay up-to-date with technological changes in labour market. According to Hövels (2005) vocational education is inextricably related to labour market. After all industry is the main 'buyer' of the 'product' of vocational education and also should be co-maker of the curriculum. There should be a shared responsibility of training centers and industry. An important example is the relationship regarding apprenticeships. The apprenticeships-system is a very good way of offering on-the-job education next to off-the-job education in a vocational training center, which can be concluded from the literature analysis, document analysis as well as the case study. During apprenticeships students get acquainted with a profession and the working environment. However, this system needs good linkage with the curriculum of the school, which often is a problem. Often there is a divided responsibility in which schools are responsible for the curriculum and industry is responsible for providing apprenticeships.

Cooperation between VTC's and industry can be exploited more through exchanging resources and knowledge, which can have a bilateral character and is already done in the case of India in the document analysis. Industry in developing countries must be made more aware that this cooperation is important for a good provision of personnel. In the study of Hövels (2005) about the relationship between Dutch industry and VET the tuning between practice and theory is the main issue in VET and industry is willing to involve in content and process-development to enhance this tuning. On the side of the cooperation, VTC's will be able to use resources from industry and better adjust their education to the demands of labour market. Instructors play an important role in

this cooperation according to Vrieze e.a. (2004). They have to maintain affinity with their occupational field, through visiting industry and staying up-to-date with issues and dilemmas. However insufficient orientation of VTC's towards industry, little openness, cultural differences between industry and VTC's and time-investment causes difficulties in this cooperation according to Hövels (2005). Therefore these aspects need attention when working on this cooperation.

In order to place students on the labour market guidance of students and stimulation of SME-development is very useful, leading from literature analysis and the case study. One of the big discussions in the VET-field, as can be concluded from literature analysis as well as from the case study, is that more responsibility is shifted to the private sector. Providence as well as financing VET should be left over to private institutions and companies more in order to get efficient content, processes and use of resources.

### 4.3 Recommendations

As stated in the conclusions the importance of VET, mainly in developing countries is increasingly being acknowledged. NGO's play an increasing role in providing VET, mainly to the poor, the disadvantaged and dropouts in developing countries (Working group for international cooperation in skills development, 2004). Besides that, private providers of VET also seem to respond to labour market better than public ones. On the other hand, as also follows from this study, reform related to the quality in VET is needed. Mainly the importance of the social perspective needs to be stressed, the relationship with labour market needs to be improved and aspects like flexibility and employability are main keywords getting more important.

However, a lot of NGO's, including partner-organizations of Woord en Daad have to cope with financial constraints. Therefore, the main challenge for them is improving VET with often limited resources available. Main issues, trends and challenges, discussed in the latter chapters of this study lead to implications for improvements in VET. These are meant for Woord en Daad, but especially for their partner-organizations. The implications for the latter are represented in the shape of guidelines, see Table 12. With these guidelines the second goal of this study is achieved; offer partner organizations of Woord en Daad working in developing countries guidelines to improve existing or start new projects in vocational education.

The guidelines are divided into five categories, as explained in paragraph 1.3. This classification is used throughout all the parts of this study and therefore they form a whole in this study. Many of the guidelines can be referred to the dual goal of VET, explained in paragraph 2.4.2. The core of VET namely is the combination of social and economic goals, which also influences the other categories: content, processes and effects. For example in the category 'content' this means offering social as well as vocational skills (paragraph (2.4.3) and for 'effects' this means the measuring employment-rates as well as personal and cultural development (paragraph 2.4.5). This explains the relation of the first discussion in paragraph 4.2, about the importance of the social perspective, with the given guidelines. The relation with the second discussion in paragraph 4.2 can also be seen in the social skills mentioned. These general skills make students able to switch to other jobs or react to changes within their profession more easily. They form a basis of competencies. The final discussion in paragraph 4.2 about the relationship and cooperation with the labour market is mainly found in the category resources and conditions. A lot of examples of exchanging knowledge and skills with others and of the dual profit of involving industry in VET are given. Every guideline is described in a practical way using promising examples from the case study as well as other promising examples from the literature and document analysis.

Table 12. Practical guidelines for partner-NGO's of Woord en Daad

Practical guidelines for partner-NGO's of Woord en Daad	
Goals	<p><u>- Use goals which are appropriate within the context.</u>                      ⇒ In rural areas the local economy focuses on entrepreneurship in agriculture and in urban areas the local economy focuses more on technical jobs.</p> <p><u>- Use goals which are social as well as economic.</u>                      ⇒ Besides integrating youngsters into the job market, their personal development and citizenship is also important.</p>
Content	<p><u>- Offer vocational as well as social skills. Integrate social skills into vocational courses. Explain the importance of these skills to all stakeholders.</u>                      ⇒ Social skills like in ethics, life skills, HIV, citizenship, entrepreneurship, devotion to work, responsibility, self-confidence, communication skills, flexibility, cooperation, English;</p> <p><u>- Meet demands from labour market, therefore stay up-to-date with (technological) developments continuously.</u></p>
Processes	<p><u>- Offer practice as a major part of your education, besides a small amount of theory:</u>                      ⇒ 70% practice and 30% theory is a good practice at Hope Enterprises, Ethiopia;</p> <p><u>- Combine on-the-job and off-the-job learning:</u>                      ⇒ on-the-job: through apprenticeships;                      ⇒ off-the-job: theory in classrooms and practice in workshops;</p> <p><u>- Choose informal or non-formal education, depending on your target group and goals:</u>                      ⇒ non-formal: often short, very practical training, mostly applicable to dropouts;                      ⇒ formal: comparable to governmental education, for regular students, Useful for competing for governmental jobs.</p>
Effects	<p><u>- Try to get a high employment-rate through:</u>                      ⇒ using job mediation (Job &amp; Business Centers) for guiding student onto labour market;                      ⇒ stimulating SME-development: through offering courses in entrepreneurship, loans, feedback or materials.                      ⇒ (examples of good practice: 60-70 % is achieved by partner-NGO's in India, at Hope Enterprises in Ethiopia this even is 83%)</p> <p><u>- Take care of personal development of youngsters:</u>                      ⇒ offering social courses and teach youngsters good citizenship, responsibility, self-confidence;</p> <p><u>- Start a new project with a feasibility study and evaluate the curriculum continuously, internally and externally.</u></p>
Resources and conditions	<p><u>- Use up-to-date and an adequate amount of materials and equipment. As a lack of budget often causes difficulties in up-to-date workshops with accessory materials and equipment, ways to improve this should be sought using the limited resources available:</u>                      ⇒ exchange materials and equipment with other VTC's;                      ⇒ exchange materials and equipment with industry;                      ⇒ integrate more courses into companies;                      ⇒ compensate costs through selling home-made products and services;                      ⇒ compensate costs through asking successful graduates for the returns of their school fees.</p> <p><u>- Use up-to-date and adequate amount of instructors. A lack of skilled and an adequate amount of instructors appears to be another big problem caused by a lack of budget or often due to the initiating stage of the VET-sector. Therefore:</u>                      ⇒ acknowledge instructors to be the most important players in VET because they implement the curriculum;                      ⇒ create possibilities of and stimulate personnel for knowledge exchange (with industry, other VTC's, universities etc.);                      ⇒ create learning possibilities for personnel, like attendance of workshops and seminars or even upgrading courses;                      ⇒ If government teaches teachers too theoretically, think of teaching or upgrading own teachers.</p> <p><u>- Involving industry in VET, make them aware of advantages in both ways:</u>                      ⇒ collective curriculum evaluation or development;                      ⇒ exchange materials, equipments and knowledge.;                      ⇒ employees can be part-time teachers in VET;                      ⇒ employees are schooled or upgraded by VET;                      ⇒ instructors from VET can do research for industry.</p> <p><u>- Connect and cooperate with government and other (VET)-institutions; exchange resources and knowledge and, if applicable, get accreditation.</u>  <u>- Involve and cooperate in governmental decisions and policy making.</u>  <u>- Be innovative and be open to change;</u>  <u>- Integrate into environment, get foundation from involved people, using media.</u></p>

### Organizational recommendations for partner-NGO's of Woord en Daad

Now the guidelines for partner-organizations are described, it is important to care for a good implementation of these guidelines in practice. Describing guidelines namely is not enough for improving or starting VET-projects. As Woord en Daad is the main initiator and facilitator of the improvement of quality of VET, offered by her partner-organizations, main recommendations concerning implementation are described in the next paragraph. In this paragraph some main organizational recommendations for partner-NGO's, related to the guidelines are given. Firstly, it is important to use the guidelines as list of *points of attention*, not as a checklist. Besides that, it is important to always take into account the context in which VET is implemented. Thirdly, it is important to recognize the *five categories of quality* used as a framework for the guidelines, to all be essential elements of a (VET) curriculum. Besides recognizing the five categories of quality, also the *three curriculum-levels* of a project are useful to investigate. Differences between or within levels can be recognized through comparing the different views on VET. After studying the reason of these differences, problems in the project might be solved.

### Organizational recommendations for Woord en Daad

Now main results and conclusions in this study are drawn and guidelines are designed, Woord en Daad has to take care of the follow-up of this study. The main recommendations for Woord en Daad concern three major aspects, mostly organizational. Firstly, they have a role in the implementation of the guidelines. Secondly, they should keep knowledge about issues, trends and challenges in the VET-field up-to-date and extend this even further. Thirdly, for further improvement of the quality of VET budget and follow-up studies are essential. These three aspects are described in this paragraph.

#### *Importance of instructors in implementation*

As this study brings forth several guidelines for partner-NGO's of VET Woord en Daad can play a role in the implementation of these guidelines into several projects. According to Fullan (2001) and Nijhof & Oosthoek (1978) the implementation process is a complicated process. A lot of innovations in education are initiated, work for a while, but afterwards disappear partly or completely. Local characteristics like community, management and instructors and external factors like government and other agencies are affecting implementation. Besides that also characteristics of change like practicality and need have their influence on the success of the implementation. As instructors play a big role in implementation of (vocational) education they were the most important factor in the case study. Therefore the guidelines (including this report, which forms the rationale behind the guidelines) should be distributed to the different partner-NGO's and mainly to the instructors, taking into account the organizational variables which are important in the implementation of the innovation. Besides that, Woord en Daad needs to stress the importance and explain the meaning of the guidelines, mainly to instructors, in order to let partners fully understand the goal and intention of the guidelines. As clarity and complexity often are big problems in implementation (Fullan, 2001), maybe even training of instructors is needed to transfer the meaning and importance of the guidelines. Another important aspect is that the guidelines are not meant to be a complete checklist. They can be modified or only some can be selected depending on the appropriateness in a specific situation. Besides this, Woord en Daad can facilitate the process of quality improvement of VET through stimulating partner-NGO's to be open to several parties (employers, government, personnel) and willing to adapt or change.

### *Keep knowledge about issues, trends and challenges up-to-date*

As Woord en Daad wants to help their partners improving the quality of their projects a good view on current issues, trends and challenges in the field is needed. As the project-files used in the document study give rather static and fragmentary information (a lot of information is in the heads of employees at Woord en Daad) it was difficult to get a complete picture of the issues in the different projects. Besides that the files do not have a clear structure, they only are stored in chronological order. In order to *create insight into the files*, and with that insight in issues and problems, they could be saved in a more structured way, like using an evaluation format regularly. The guidelines can be helpful to evaluate projects and keep the knowledge about a project up-to-date.

Another aspect to extend the knowledge about issues, trends and challenges in the VET-field is using a *knowledge network*. The list of experts, of which some already joined the expert meeting during this study, could be used for starting a knowledge-network around VET for further expertise-development in the future. This option of knowledge exchange is also useful for partner-NGO's themselves. Therefore Woord en Daad should create learning opportunities for partner-NGO's: exchanging info via seminars, platform, exchange visits etc.

### *Importance of budget and follow-up studies*

As explained in the conclusion the VET-sector is very important, mainly in developing countries and already is developing a lot. NGO's play an increasing role in offering VET, but mainly suffer from financing problems. Therefore, in order to develop this sector more, mainly more budget is needed. This report can serve as an explanation of the meaning and use of VET and therefore can be used for lobby-activities to (local) governments and donors in order to encourage and sponsor the development of the VET-sector.

As only limited information is used in this study (partner-NGO's in three countries and only one in-dept) it is advisable to do a follow-up study about more partner-NGO's. As Woord en Daad is also working in other educational field and education always needs improvement, a follow-up study about the possibility to use this study and guidelines for other kinds of education (primary or secondary) can be done.

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## Appendices

### Appendix 1. Educational structures

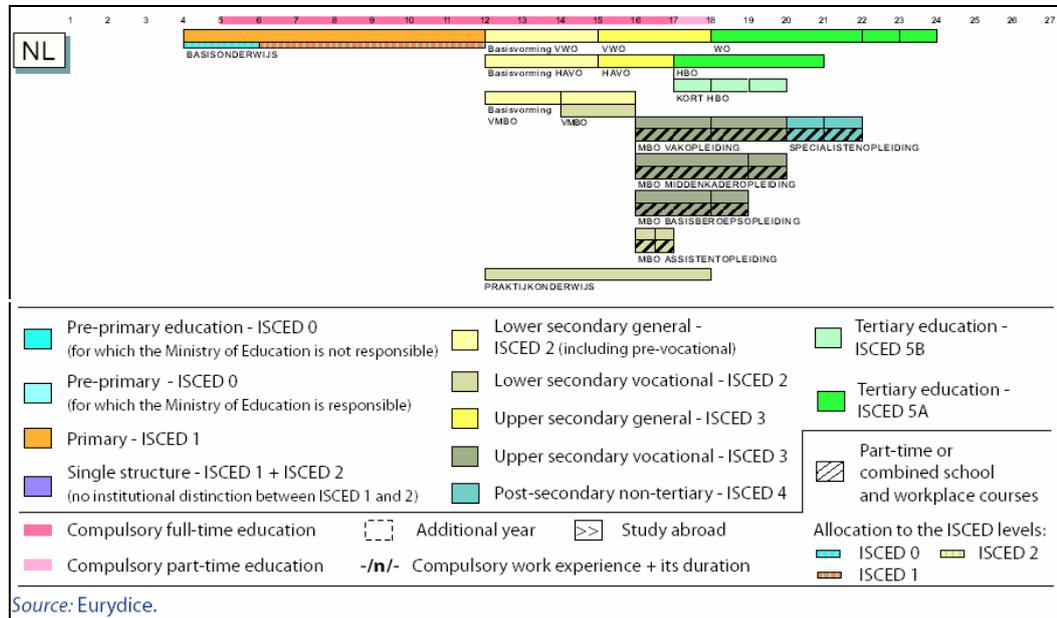


Figure 3. Educational structure of The Netherlands

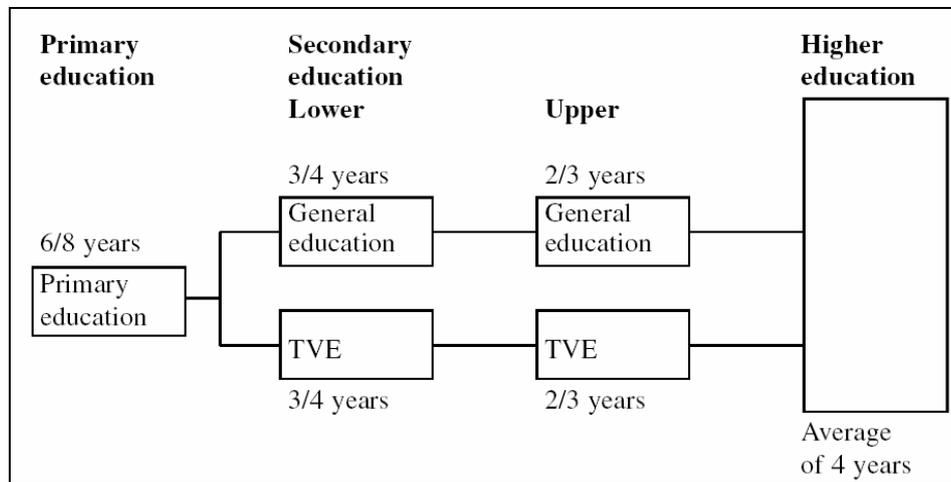
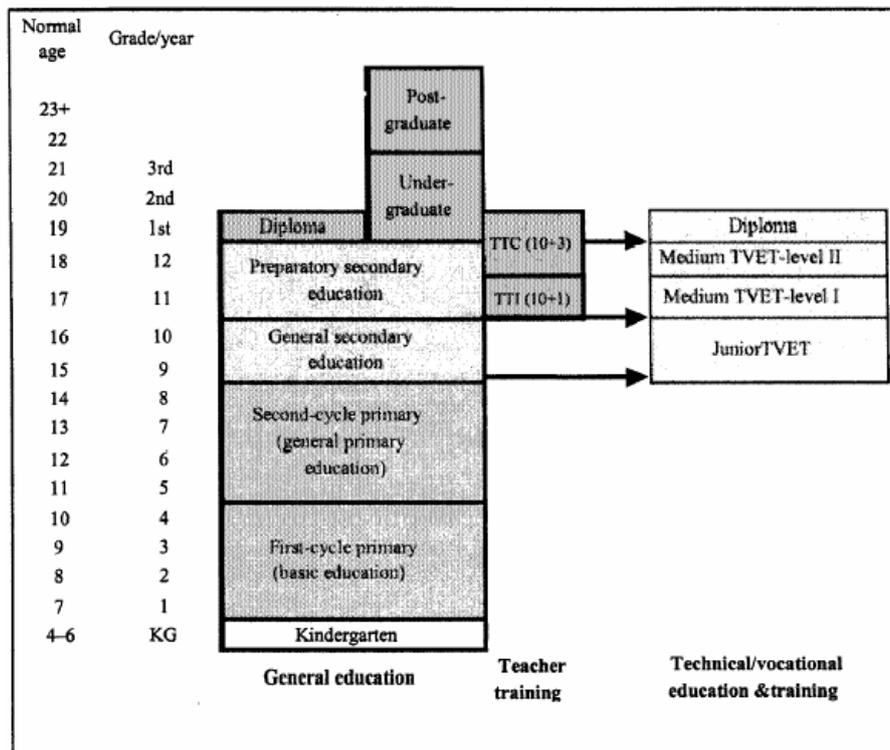


Figure 4. Educational structure of Burkina Faso

Source: Atchoarena & Delluc (2002)

AGE	Alternative Education Stream	Years	Regular Education Stream
18+	Open Universities/ Distance Learning Institutions. (Government and Private)		Academic and Professional Degree Colleges & Technical / Agricultural Universities (Government and Private)
17-18	National Institute of Open Schooling	Year 12	Senior Secondary Schools / Colleges, Vocational Training Institutions. (Government, Private and Religious Minority Schools)
16-17		Year 11	
15-16	National Institute of Open Schooling	Year 10	SECONDARY SCHOOLS (Government, Private and Religious Minority Schools)
14-15	Non Formal Education Centres	Year 9	
13-14		Year 8	
12-13		Year 7	
11-12		Year 6	
10-11		Year 5	PRIMARY SCHOOLS (Government, Private and Religious Minority Schools)
9-10	Year 4		
8-9	Year 3		
7-8	Year 2		
6-7	Year 1		
3-6	Pre School, Kindergarten		

Figure 5. Educational structure of India



Note: The duration of postsecondary courses may vary by field of study.  
Source: Ministry of Education, Govt. of Ethiopia.

Figure 6. Educational structure of Ethiopia '03/'04

## Appendix 2a. Expert meeting- quality-card

In this appendix the quality-card as a result from the literature analysis about the quality of Vocational Education and Training is shown, consisting of five tables, according to the five categories of quality of (vocational) education: goals, content, processes, effects and resources and conditions.

Table 13. Quality elements of VET in developing countries- Goals

← 1. GOALS →		
Discussion elements	Basic quality elements	Examples of good practices/ recommendations
<p><b>1.1.1 a.</b> Goals according to social perspective (see 2.1.1a)</p> <p><b>1.1.1 b.</b> Goals according to economic perspective (see 2.1.1b)</p>	<p><b>1.1</b> Goals are relevant within the context; specific needs and problems of target group/area (rural or urban) /country are addressed, with cultural, social, political aspects taken into consideration</p>	
	<p><b>1.2</b> All quality-aspects are consistent with the goals; content, processes, effects, resources and conditions are linked to each other aimed at intended goals</p>	

Table 14. Quality elements of VET in developing countries- Content

← 2. CONTENT →		
Discussion elements	Basic quality elements	Examples of good practices/ recommendations
<p><b>2.1.1 a.</b> Emphasis on generic skills and knowledge (key qualifications) for social, durable development of the individual: communication skills (speaking and writing), numeracy, social skills, trainability and flexibility</p> <p><b>2.1.1 b.</b> Emphasis on vocational skills for preparing the individual for labour market or further study. Education is demand-driven</p>	<p><b>2.1</b> Emphasis of content is consistent with stated goals</p>	
<p><b>2.1.2 a.</b> Specialization; aimed at current situation</p> <p><b>2.1.2 b.</b> Postpone specialization; key-qualifications have priority. Aimed at future situation.</p>		
<p><b>2.2.1</b> Meeting both current and future demands</p>	<p><b>2.2</b> Content that meets the demand from labour market</p>	<p>Having contact with employers through;</p> <ul style="list-style-type: none"> <li>- involving employers in curriculum planning (Qureshi, 1996) (Ziderman, 1997) (Dyankov, 1996)</li> <li>- involving teachers from VET in company research (Dyankov, 1996)</li> <li>- organizing 'job-fairs' in which students can show their best products and come into contact with employers</li> <li>- exchanging information about vacancies (Dyankov, 1996)</li> <li>- Staying up-to-date with technological changes in society (Korea: Unesco, 2005)</li> <li>- Knowledge exchange with other training centers, universities etc.</li> <li>- Regional knowledge centers</li> </ul>

Table 15. Quality elements of VET in developing countries- Processes

<b>3. PROCESSES</b>		
Discussion elements	Basic quality elements	Examples of good practices/ recommendations
<p><b>3.1.1 a.</b> Theoretical: aimed at knowledge transfer  <b>3.1.1 b.</b> Practical: hands-on experience in workshops or through apprenticeships (useful for future employment)</p>	<p><b>3.1</b> Organization of training which suits the kind of skills and meets the intended goals</p>	<p>In Mexico (Lee, 1998) 20% general theory, 20% technical theory and 60% 'hands-on' practice</p>
<p><b>3.1.2 a.</b> Off-the-job  <b>3.1.2 b.</b> On-the-job</p>		<p>- Dual system in Germany (Harris, Simons, Willis, Carden, 2003)                      - New methods like distance education</p>
<p><b>3.1.3 a.</b> Informal (learning resulting from daily activities)  <b>3.1.3 b.</b> Formal (learning within organized and structured context )  <b>3.1.3c.</b> Non-formal (learning embedded in planned activities, but not explicitly designated as learning)</p>		
<p><b>3.1.4 a.</b> Parallel vocationalized system (general education parallel organized to vocational education)  <b>3.1.4 b.</b> Comprehensive/diversified system  <b>3.1.4 c.</b> Vocationalization of part of the core of the curriculum  <b>3.1.4 d.</b> Informal training centers</p>		
<p><b>3.1.5 a.</b> Public  <b>3.1.5 b.</b> Private</p>		
<p><b>3.2.1</b> Individual education which fits the individual needs or differentiation in groups?</p>	<p><b>3.2</b> Processes that meet the needs of target group</p>	<p>- Providing education in local language for minority groups (Watson, 1994) (UNESCO-UNEVOC, 2003)                      - Attractive learning environment                      - Reckon with enrolment qualities (prior education) with the help of entry exams (Qureshi, 1996) (UNEVOC, 1995)</p>
	<p><b>3.2</b> Innovation</p>	
	<p><b>3.3</b> Good management of education</p>	

<p><b>3.4.1 a. On-the-job</b></p> <ul style="list-style-type: none"> <li>- Feedback and explanation</li> <li>- Stimulation from employer or colleagues</li> <li>- Learning culture</li> <li>- Information, instructions, simulations</li> <li>- Tutoring</li> <li>- Material workplace-characteristics</li> </ul>	<p><b>3.4 Adequate learning environment</b></p>	<p>Use of information and communication technologies (up-to-date technologies) ? (Qureshi, 1996) Multimedia promotion in Mexico (Lee, 1998)</p>
<p><b>3.4.1 b. Off-the-job</b></p> <ul style="list-style-type: none"> <li>- Realistic</li> <li>- Coaching</li> <li>- Stimulates activity</li> <li>- Practice- assessment</li> <li>- Aimed at learning independently</li> </ul>		

Table 16. Quality elements of VET in developing countries- effects

← 4. EFFECTS →		
Discussion elements	Basic quality elements	Examples of good practices/ recommendations
<p><b>4.1.1</b> Education for further schooling or for (self-) employment?</p>	<p><b>4.1</b> Output which meets the intended goals (poverty reduction)</p>	<ul style="list-style-type: none"> <li>- Dropout rates</li> <li>- Rates of graduates (learning results)</li> <li>- Graduates being employed; follow-up graduates</li> <li>- Career-counselling or guidance; guide students onto the labour market/ to further education (Ziderman, 1997) (Dyankov, 1996)</li> </ul>
	<p><b>4.2</b> Quality assurance</p>	<ul style="list-style-type: none"> <li>- Program evaluation/ 'feasibility studies'</li> <li>- Aimed at sustainability- Long-term perspective (Powell, 2001)</li> <li>- Teachers questioning each other</li> <li>- Creation of new employment</li> </ul>

Table 17. Quality elements of VET in developing countries-resources and conditions

<b>5. RESOURCES AND CONDITIONS</b>		
Discussion elements	Basic quality elements	Examples of good practices/ recommendations
<p><b>5.1.1</b> How can this be done in an effective way? Competence or authorized? How to compete/ cooperate with industry? Pre-service or in-service?</p>	<p><b>5.1</b> Well educated and adequate amount of teachers</p>	<p>Using expertise from industry; employees being part-time teachers in VET: they practice what they preach (Lee, 1998) (Dyankoy, 1996) (UNEVOC, 1997)</p>
	<p><b>5.2</b> Adequate resources (reference books, tools, machinery and raw materials) depending on the aim (for instruction or for production)</p>	<p>- Using facilities, machinery and materials from industry (Dyankoy, 1996) - Exchanging ideas, information and materials with other countries or institutions within the country (Dyankoy, 1996) (UNESCO-UNEVOC, 2003)</p>
<p><b>5.3.1 a.</b> Public (government) <b>5.3.1 b.</b> Private (institutions and individuals)</p>	<p><b>5.3</b> Financing</p>	<p>- High tuition fees bring about more motivated and hard working students in Mexico (Lee, 1998) - Sell products made in VET (Ishumi, 1988)</p>
<p><b>5.3.2 a.</b> Give priority to budget <b>5.3.2 b.</b> Give priority to quality</p>		
<p><b>5.3.3</b> No financing in VET until universal primary education has been achieved</p>		
	<p><b>5.4</b> Management</p>	
	<p><b>5.5</b> Innovative capacity</p>	
	<p><b>5.6</b> Basic conditions, like electricity, space and water supply</p>	
	<p><b>5.7</b> Institution is integrated into environment</p>	
	<p><b>5.8</b> Foundation from directly involved people</p>	

## Appendix 2b. Expert meeting- list of participants

Table 18. List of participants of the expert meeting

Participant	Employer	Expertise
Mrs. Van Amelsvoort	Inspection of Education	Expertise in evaluation
Mr. Van den Broek	MDF	Working on a unit for Education Role Development. MDF consults for projects in middle-level and higher vocational education.
Mr. Hammink	Span consultants	Consultant for several international projects. Recently he was involved in an evaluation of vocational education in Tanzania.
Mr. Nijhof	University of Twente	Expertise in Dutch vocational education. Actively involved in research about learning at the workplace.
Dhr. K. Visser	CINOP	Broad view on vocational education.
Dhr. T. Visser	CINOP	A lot of experience in foreign educational projects.
Mr. Van Bochove	Stabiplan	Involved in the business platform of Woord en Daad (vocational education committee).
Mr. Roelofse	Woord en Daad	Until recently working at CNV as policymaker for vocational education and training. Now volunteer at Woord en Daad.
Mrs. Den Hartog	Woord en Daad	Working in Labour and Income, especially with Job and Business centers (entrepreneurship and job mediation) and vocational education.
Mr. De Kock	Woord en Daad	Projectmanager in education
Mr. Lock	Woord en Daad.	Director
Mrs. Nieuwenhuis	Woord en Daad	Policymaker, setting up new research-department in which vocational education will take an important part
Mrs. Willemsen	Woord en Daad.	Secretary Projects and Programs and Institutional funds
Ms. Baars	Woord en Daad	Secretary Projects and Programs
Ms. Hoogerwaard	University of Twente, Woord en Daad	Student Educational Science and Technology, HRD

## Appendix 3. Case study

Table 19. General interview guide case study

Category	What do I want to know?	From whom?	How?
overall	What are the most important quality aspects in VET? What are your experiences at Hope related to these aspects? How could current quality of this VTC be improved?	all	Interviews
goals	What are the goals of VTC/ what are goals of VET?	4 t/m 8	Interviews
content	What kind of skills are trained, what is the content of the training (job-related, general)	1 t/m 3, 5	Interviews
processes	How is management of education organised	5, 6	Interviews
	What kind of training is offered Formal/informal/non-formal Duration % theory/practice off-the-job/on-the-job individual education or differentiation in groups	1 t/m 3, 5	Interviews + observation
To adjust processes	What are characteristics/ needs of the target group	1 t/m 3	Interviews
effects	In what amount is there innovative capacity	4 t/m 6	Interviews
	Is there Follow-up of students	5, 9	Interviews
	What is done in evaluation/ feasibility studies	5	Interviews
	What are the dropout-rates, rates of graduates, employment rates	5, 9	Interviews
	Does creation of new employability take place	5, 9	Interviews
resources and conditions	What are characteristics of teachers (educational level)	1, 5	Interviews
	What are elements of the learning environment adequate resources adequate processes: coaching, instruction, feedback and explanation, learning independently, stimulation.	1 t/m 5, 9	Interviews, observation
	Is there integration into the environment (Relationship/differences with) VTC's in neighborhood Relationship/cooperation with employers in neighborhood Knowledge of current demand from labour market Knowledge of technological changes in society	4 t/m 10	Interviews
	financing (compared to output: relation cost/benefits)	5	Interviews
	Basic conditions like water, electricity	-	Observation
	Accessibility (infrastructure, entrance criteria like age, sexe, status)	5	Interviews

Respondents (from whom?):

1. Instructors
2. Trainees
3. Graduates
4. Apprenticeship offering companies (Moha Soft drinks Factory, Tikur Abay H,H & Office Furniture Factory ) and employing Agencies (GM wood works factory, EPCO SAFECON CO, Federal micro and small enterprises development agency)
5. Branch Manager & VTC Head
6. Board Members Hope
7. Regional & zonal Education Bureau
8. Chamber Of Commerce
9. Career Planning & Job Placement Manager
10. Governmental Technical school (Higher4) and one Non Gov. TVET (OIC) – only for observation

Results of all the interviews can be retrieved at the author of this thesis.

Table 20. Tentative schedule for the case study

Date	Time	Activities	Facilitator
Jan 16, 2006	9:00-10:30	Briefing & Discussion with Executive Director	Ato zenebe Ayele
	11:00-4:30	Hope enterprises Addis Abeba, Branch Visit Interview with Branch Manager & VTC Head	Ato Solomon Tesfaye Ato Tefera Tadesse
Jan 17,2006	8:00-4:30	Interviews with Instructors and Trainees	Ato Tefera Tadesse A.A VTC Head
Jan 18,2006	8:00-4:30	Visit & interview with apprenticeship offering companies (Moha Soft drinks Factory, Tikur Abay H,H & Office Furniture Factory )	Ato Tefera Tadesse
Jan 19,2006	10:00-12:00	Holiday(Epiphany Ceremony)	Ato Tefera Tadesse
Jan 20,2006	9:00-4:00	Visit and interviews with two Business organized under Hope Enterprises	Ato Tefera Tadesse
Jan 21,2006	10:00-12:00	Site Seeing	Ato Tefera Tadesse
Jan 22,2006	10:00-12:00	Church Program	Ato Zenebe Ayele
Jan 23,2006	8:00-12:00	Observation of one Governmental Technical school (Higher4)and one Non Gov. TVET (OIC)	Ato Tefera Tadesse
	2:00-4:00		
Jan 24,2006	9:00-12:00	Interview with Regional & zonal Education Bureau	Ato Tefera Tadesse
	2:00-4:00	Interview with Career Planing & Job Placement Manager	Ato Abreham Sahilu
Jan 25,2006	9:00-12:00	Interviews with Employing Agencies & Graduates (GM wood works factory, EPCO)	Ato Tefera Tadesse A.A VTC Head
	2:00-4:00		
Jan 26,2006	9:00-12:00	Interview with Employing Agencies (SAFECON CO., Federal micro and small enterprises development agency) Interview with Chamber Of Commerce	Ato Tefera Tadesse
	2:00-4:00		
Jan 27,2006	9:00-12:00 1:00-4:00	Interview With Board Members Debriefing session	Ato Zenebe Ayele Staff