

(Figure 1)

1. INTRODUCTION

Dear members of the RESPECT-network!

I´d like to thank you very much for your invitation. It is very nice to be here in the famous city of Budapest.

First (**Figure 2**), I want to give you some background information on the

- reasons for the research we did in Jena, that was grant-aided by the German Federal Institute for Vocational Education and Training on the state-of-the-art in the field of internationalisation the German system of Vocational Education and Training;
- structure and architecture of Vocational Education and Training in Germany; (And)
- tasks of our department of Business, Economic and Vocational Education at the Faculty of Economics, Business Administration and Management, which is a part of the State University of Thuringia, called Friedrich-Schiller-University in Jena.

Secondly, I have to mention that we did our research from a pedagogical point of view and so I will point out two aspects of our results of research: (namely)

- what are the main domains of that kind of qualifications or competences, which we call “international competences” in a vocational context of white and blue collar occupations? (And)
- which way of teaching and learning these “international vocational competences” seems to be the best and what are possible opportunities for a step-by-step strategy to a lasting change in the curricular conditions and teaching methods in Vocational Schools and enterprises?

Finally, I will discuss some of the results of our research, which I mentioned in part two of my lecture.

2. SOME BACKGROUND INFORMATION

2.1 Reasons of Our Research on Internationalisation of Vocational Education and Training in Germany

The international division of labor leads to products being sold all over the world, and thus the service for these products also has to be provided on an international basis. Experts from the factory will solve problems that cannot be eliminated locally. Furthermore, Global Sourcing means that components are purchased globally, and products are built according to the purchaser's guidelines – therefore, quality management procedures have to be designed internationally. By creating "flat hierarchies" the employees are directly confronted with international requirements. Internationalisation does not only affect white-collar workers, but blue-collar workers as well.

The results of representative surveys carried out in the enterprises by the Institute of the German Economy (Institut der Deutschen Wirtschaft) qualify the status quo data in a sense of prospective

demand. These surveys showed, for example, that those "international qualifications", used regularly by skilled workers, were divided as follows: 32.4% used "vocationally orientated foreign language skills", 21.6% used "international specialised knowledge", and 15.9% used "other international knowledge and qualifications". Generally, enterprises considered the importance of these areas as follows: 23.6% voted for "foreign language skills", 23.3% for "international specialised knowledge", and 25.5% considered "intercultural knowledge/dispositions" as most relevant. Altogether, the international dimension of training is important for about 25% of the enterprises involved. All these figures are average results. In some businesses, industries, regions or professions the demand is even higher. The increasing demand for international competences is a challenge for the German System of Initial and Further Vocational Education and Training. For this reason the German Federal Institute of Vocational Education and Training wanted to get more and better information of current activities in the domain of internationalisation, especially in the fields of curricular changes and teaching methods. Our task was to identify pedagogical concepts, examples of good practise, but also examples of existing restraints.

2.2 Main Aspects of the Structure of the German System of Vocational Education and Training

If somebody wants to talk about initial and further VET in Germany, first he has to speak about the so called "Dual System" – and of course, I will proceed in this way. "Dual" means a simultaneous education and training at the working place in enterprises and public utilities and in special Vocational Schools, but it does not mean that the two parts of the system are equivalent. The training at the working place dominates the school-based part of the VET-System in Germany. So, this system stands in the tradition of the classical European Apprenticeship System.

Nowadays, the "Dual System" is still the most important pathway from school to working life for young people in Germany. For example: there were about 3,3 Million students at the age of 16 to 20 in Germany in 1999. Nearly 29 % attended the "Gymnasium" or a full-time higher vocational school to get the permission to study at a university or an institution of applied science ("Fachhochschule"). More than 50% of the students choose the "Dual System" to get a qualified vocational certificate in one of nearly 400 occupations, apprentices can study in Germany. But additionally, there is a third way from school to working life in Germany, and this way is mostly unknown in foreign countries. About 21% of the students – mainly female students - at the age of 16 to 20 attended a full-time vocational school to become a nurse or a kindergarten teacher or a technical assistant in medicine or chemistry and so on. I also have to mention another important and surprising point for people from foreign countries: Nowadays, nearly 20% of the students, which have got the permission to study at a university, prefer the "Dual System" against the academic way. Apprenticeship, the work-based route of VET called Dual System, is the most attractive way from school to working life for the majority of young people and companies in Germany.

To explain this dominance, we have to look back in the history. The Dual System was established in the last two decades of the 19th century and the first two decades of the 20th Century, but the tradition of apprenticeship is much older. The guilds of craftsmen and tradesmen established this type of VET in the 14th and 15th Century in nearly all European countries. But these guilds lost their social and economic importance at the beginning of the 19th Century in most of the European countries. In Germany the guilds or corporations remain in strength up to the present time. So, these corporations set the standards of apprenticeship. The corporations established Apprenticeship in the manufacturing industry and in banking, insurance companies and some parts of the public service in the first three decades of the 20th Century. The German employers' associations of the metal working, electrical, chemical and other industries created a new type of skilled-workers. In German

this type is called “Facharbeiter” and it copied the traditional form of craftsmen’s apprenticeship. The employers in the trading, banking and financing sectors followed this way some years later.

Afterwards, there was no important change in the structure of the German “Dual System” until 1968. In that year a law about apprenticeship came into force in Germany. This law, called “Berufsbildungsgesetz”, regulates the rights and duties of apprentices and employers up to today. And the employers’ associations and trade unions got the permission to construct the curriculum for the vocational training within enterprises and companies together with public authorities. Nowadays, curricula and training programs exist for nearly 400 vocations. These curricula have an obligatory character for both partners of the articles of apprenticeship – for the respective employer and apprentice as well. Employers’ associations and trade unions also have an important influence on the process of constructing the curricula for the vocational schools as a part of the “Dual System”, and even on the process of constructing programs of Further Vocational Education. These programs offer skilled workers the chance to get better jobs and higher earnings.

2.3 The Department of Business, Economic and Vocational Education at the FSU Jena

In Germany many experts are needed for Initial and Further Vocational Education and Training to reach a high quality of teaching and instruction in Vocational Schools and the apprenticeship within enterprises and public services. People who want to become a teacher in Vocational Schools or an expert for planning, organising and controlling programs for Vocational Training have to study a special Teacher Training program at a university. This program is a long-term study with one final masters exam and it lasts at least four and a half years. One part of the Curriculum consists of pedagogical theory of Vocational Education and Training and this includes curriculum studies, methods of teaching and instruction, history of Vocational Education and Training, international developments in Vocational Education and training in a comparative view and so on. The tasks of our department in Jena are on the one hand to teach these subjects and on the other hand we do some research, especially in the area of Curriculum Studies in a comparative view.

3. SELECTED RESULTS OF RESEARCH FROM A PEDAGOGICAL POINT OF VIEW

3.1 Main Domains of “International Competences” in a Vocational Context

Our research on Internalisation of Vocational Education and Training in Germany encountered some difficulties. Primarily, there was no consensus about the subject, we were interested in – neither about the name of the subject nor about the content and extension of the topic. Everybody, who had already written or talked about this topic used different terms and definitions.

For this reason, we decided to label it “International Vocational Competences.” These competences include four dimensions (Figure 3):

- a. Due to the increasing internationalisation of life and work, along with growing cross-border mobility, we can conclude that every person, living, learning and working in Germany has to be capable to communicate in at least one foreign language (“**Foreign Language Competence**”).
- b. The increase of world-wide migration processes and the impact on national cultures and identities associated with it have increased difficulties in handling individual and social relations. From this we derive the claim for the ability to communicate thoughtfully when

meeting members of a foreign culture - with comprehension, acceptance and tolerance for the foreign culture and person ("**Intercultural Competence**").

- c. The increasing globalisation of the economy has led to the fact that more and more knowledge of foreign regulations that deviate from German standards is required in business actions. Correspondingly, we demand the increase of such elements in the corresponding educational careers ("**International Competence**" in a special domain).
- d. Information and communication technology opens up considerable chances for individuals and enterprises to participate in world-wide communication and information networks. The qualifications for knowledge-based, methodical handling of the relevant media and its adequate use in communication across the borders can be considered one central goal and element in all kinds of educational careers ("**Network Competence**").

In our opinion it is necessary to change the German Curriculum for Compulsory and Vocational Education. First, we have to start with international educational programs already in Basic School Education. Secondly, we need new pedagogical concepts for international educational programs in Secondary Education and finally, we have to integrate these four dimensions of International Vocational Competences in all Programs of Initial and Further VET as well as in the Higher Education Programs.

3.2 Changing Curricular Conditions and Teaching Methods

What are the best ways to integrate the four dimensions of "international vocational competences" in the obligatory curricula for VET in schools and at the working-place? I will try to answer these questions by concentrating on four aspects, namely Foreign Language Teaching, Teaching of Intercultural Competence, Education and training of teachers for Vocational Schools and Instructional Environments for Teaching and Learning International Vocational Competences.

First, I will take a look on **Foreign Language Teaching**:

- a. At least one foreign language (preferably English) must become a compulsory subject in the curriculum of vocational schools for all trades and professions at a medium-term basis. The foreign language acquisition has to be seen as a part of vocational training and thus has to be defined in standard curricula. When defined as such in the training, parts of the final examination have to be accomplished in the foreign language.
- b. A specific method needs to be developed for the teaching of foreign languages (usually English lessons at vocational schools) that underlines the correlation between theoretical and practical training.

Secondly, I want to talk about **Teaching of Intercultural Competence**:

- a. The learning locations of the dual system definitely offer favourable conditions for intercultural learning in a narrower sense. That is why today learning groups in enterprises as well as in vocational schools ordinarily consist of trainees from different national, ethnic and cultural backgrounds. The learning locations "enterprise" and "school" already form a multicultural space. However, the extent depends on region and profession of the learner. A suitable instrument would be to implement cooperative pilot projects in enterprises and schools. Such projects could be used to test curricular models for intercultural learning in

vocational schools. Moreover, a program for the training of teaching personnel in enterprises and schools could be developed.

- b. Therefore, it is absolutely necessary to include the field of intercultural learning and the aspect of the organisation of international exchange programs, too, as an independent subject in the standard curriculum of the preparation courses for the Instructor Qualification Examination. Adequate training programs for enterprises training personnel have to be offered. Regarding the questions of internationalisation of vocational training, these programs should be designed and carried out in a manner that vocational school teaching staff as well as enterprise instructors can attend it.

The third point I want to mention is the **Education and training of teachers for Vocational Schools**:

- a. As a training measurement and in order to improve the qualifications of the teaching staff, German vocational teachers should perform a stay abroad of about one year. This stay includes teaching abroad. In exchange, foreign vocational teachers should work in a German vocational school under the same conditions.
- b. The concept of vocational or business education studies in connection with a foreign language should be improved regarding content and structure. Especially the training of the foreign language - in terms of specialised knowledge and specialised teaching methods - has to be orientated more strongly towards the specific conditions of teaching in a vocational school.
- c. we consider didactic competence regarding intercultural learning in the stricter sense necessary for all teachers in vocational schools; in order to be able to use these learning fields in connection with those subjects where specialised knowledge is taught (and not only in subjects like social studies, religious education or ethics). We therefore do not support the introduction of a separate optional subject called "Intercultural Education" (or something similar) in the first phase of the training for vocational or business teachers. This would only promote the tendency to delegate this task to "specialists" in practical school life. We do, however, realise the difficulties in integrating this educational focus in the studies of vocational and business teachers.

Finally, I want to talk about some possible **Instructional Environments for Teaching and Learning International Vocational Competences** based on the theory of Situated Learning.

Please have a look at **Figure 4**. It shows the opportunities for teaching and learning International Vocational Competences in the German System of VET. These opportunities already exist. In contrast, one of the major results of our research shows, that only some enterprises, schools and teachers use them as an obligate part of apprenticeship today. To the lines of this matrix of instructional environments, we assigned the four dimensions of International Vocational Competence and the two main learning locations of the German Dual System in the columns. We added a third Learning Environment namely "Learning and work in a location in a foreign country". In the cells of the matrix you will find single instructional environments, such as "cross-cultural training at the working place" or "Teaching a vocational subject in a foreign language". By following the lines, you can find ideas for constructing co-operative instructional environments for one dimension. This is a way to connect the different learning locations. If you follow one of the

columns, you can find ideas for constructing integrated instructional environments for one learning location.

4. DISCUSSION

As already mentioned, the implementation of international activities depends strongly on the personal commitment of individual persons (trainees, apprentices, teachers, instructors, etc.). If we want to prepare our youth for the needs of the modern learning society and knowledge-based economy, it will be absolutely necessary to change this unsatisfying state of affairs in a very short time, not only in the field of initial and further VET, but also in the field of Higher Education. What should be done to achieve this goal? I will only emphasise two aspects, namely the cooperation between learning locations and developing regional networks:

- First, in order to carry out measures which include different learning locations, it is necessary to create a communication forum, e.g. between instructors and teachers, to develop and coordinate concepts.. Projects for international learning have to be initiated by enterprise and school mutually, and specific problems can be picked up in general and specialised classes or the practical part of the training. It is therefore necessary to create incentives, to include cooperative international projects in the official standard curricula, and to work out media and handouts suitable for all learning locations. Consequently, the international training could, in certain aspects, lead the way in making the dual system more flexible. Coordination processes would have to be institutionalised within the bounds of regional networks.
- Secondly, we have to support the development of regional networks. A central aspect is the development of regionally located advice centres for questions regarding international training; advice centres could on the one hand contribute to an optimised promotion and information policy, and on the other hand establish contacts between persons and institutions of vocational training in a regional context. This process can be supported by appointing qualified instructors or teachers in enterprises or schools as contact persons for questions regarding international training.

Although other EU states like Denmark or the Netherlands are far better prepared for the challenge of the 21st century than Germany, the results of our research in the field of internalisation VET have shown clearly, that the effects of the globalisation will sooner or later lead to a strategy of complete internationalisation, which will affect the entire system of Vocational Education and Higher Education in all member states of the European community. Taking into account the time, educational policy needs to take effect, especially regarding personnel, it is recommended to act quickly. There is no ideal way, not in terms of revising the syllabus/standard curricula nor in deploying legal means or financial programs. Everything that can be realised at short notice should be done and we should be ready to learn from each other.

Thank you for your attention.