The Problems in TVET for Apprenticeship from the Perspective of Different Groups of Actors: a Case Study

Problem praktyk zawodowych w kształceniu i szkoleniu zawodowym i technicznym z punktu widzenia różnych grup docelowych: studium przypadku

Key words: vocational and technical apprenticeship education, principals, teachers, students, managers of chambers of commerce, employers, master trainers.

Słowa kluczowe: praktyki zawodowe, dyrektorzy szkół, nauczyciele, uczniowie, kadra zarządzająca, izby gospodarcze, pracodawcy, nauczyciele mistrzów w zawodzie.

Introduction

Vocational education has recently been one of the primary policy areas of governments, industrialized, or developing alike (Simsek and Yildirim, 2000). Globalization of the economy, increasing international competition, changes in demographic development and in the labor market are giving rise to a need for new strategies on education and training policy. Economic development depends a great deal on adapting Technical and Vocational Education Training systems to meet social and economic demands. For this reason many countries stress the need to place a greater emphasis on TVET in the years to come and highlight the importance of: providing attractive, qualified training programs and continuing training opportunities in order to enhance employability and occupational mobility; designing TVET to conform more closely with the field of practice; orienting TVET closer to the requirements of the employment system and the corresponding labor market needs and preparing young people for degrees which comply with high standards while opening up forward-looking employment prospects (BIBB, 2004). Many governments are nowadays interested in expanding vocational preparation for young people at both upper-secondary and post-secondary level. Different economies use different mixes of full-time education and apprenticeship, even if both routes are present to some extent in almost all countries (OECD, 1996).

Apprenticeship, which has an important place in TVET education, may be seen as a form of upper secondary vocational education, in which case the alternative is full-time education, particularly vocational education. Alternatively, it may be viewed as training for young workers, after leaving school, in which case the alternative becomes either ordinary youth labor, including employment, unemployment and whatever training young workers typically receive, or participation in a labor market program for
unemployed young workers (Ryan, 1998). TVET apprenticeship has developed from simply being a method of inducting young entrants in industry skills. Apprenticeship programs in the world are business and industry driven programs which define a formal relationship between an employer and an employee during which the student-worker, or apprentice, learns a trade. Programs are offered in apprenticeable occupations which meet specific approved standards, registered with and approved and designed to safeguard the welfare of apprentices. Apprenticeship programs are those which provide benefits to learners and employers alike including: reductions of business and industry training costs, employees who are trained to meet the needs of new and emerging crafts and trades, labor and management representatives working with curriculum and instructors, certified programs, on-the-job training directly connected to classroom related and supplemental instruction (RSI). Apprenticeship on-the-job training wages and benefits are usually paid by program sponsors to registered apprentices (CDE, 2012). It is important, of course, in building a stronger and larger Apprenticeship program that the program is not just effective for employers and the economy but that it also produces successful results for Apprentices themselves (LSC, 2009).

A variety of existing instructional models in apprenticeship are appropriate for an intellectual processes curriculum. According to Collins, Brown & Newman (1989), possibly the most promising model of instruction for enhancing student intellectual processes is called cognitive apprenticeship. Cognitive apprenticeship uses many of the instructional strategies of traditional apprenticeship but emphasizes cognitive skills rather than physical skills. Traditional apprenticeship contains three primary components; (a) modeling, (b) coaching, and (c) fading. In traditional apprenticeship programs, the master craftsman models expert behavior by demonstrating to the apprentice how to do a task while explaining what is being done and why it is done that way. By observing the master perform, the apprentice learns the correct actions and procedures and then attempts to copy them on a similar task. The master then coaches the apprentice through the task by providing hints and corrective feedback if needed. As the apprentice becomes more skilled, the master gives the apprentice more and more control over the task by „fading” into the background. Another important aspect of apprenticeship includes the emphasis on „real world” activities which are appropriately sequenced by the master to fit the apprentice’s current level of ability. Cognitive apprenticeship uses the same modeling, coaching, fading paradigm to enhance students’ cognitive abilities. During the modeling phase of cognitive apprenticeship, the instructor shows students how to complete a task or solve a problem while verbalizing the activity. However, in contrast to typical school instruction, the activity is modeled within the context of real world situations. For example, if a lesson deals with the concept of recycling, an activity for students should be designed around a real problem such as the development of a community recycling program. As an introduction to this lesson, the instructor should work through a similar problem with the class to model the thinking processes to be used. By modeling the desired intellectual processes, students will discover that there are many ways to solve problems, which experts make mistakes, and that seemingly simple problems are very complex in the real world. Following the modeling of the desired processes, instructors need to become coaches. This involves observing students while they carry out a task, analyzing their performance, and providing hints and assistance if needed. Finally, as the students’ cognitive skills become more accomplished they will be able to perform with less and less instructor intervention. This fading aspect of cognitive apprenticeship results in the gradual transfer of responsibility for learning from teacher to student (Johnson, 1992).

In Turkey, apprenticeship has been part of the small business culture since the time of the Seljuk Turks in the 11th century. There were three levels of apprenticeship in Ottoman times: the apprentice, or cirak, the pre-master, or kalfa, and the master called usta. Only an usta was eligible to take in and accept new cirak for training. A boy would usually start the training process as a cirak at age 10–11 and finish as a master at the age of 20–25. Many years of hard work and disciplining under the authority of the usta was the key to the young apprentice’s education and learning process (Petkova, 2011).
Proper apprenticeship education practices started in 1977 with Apprentice, Experienced Apprentice and Mastership Law (nr. 2089) while education of apprentices were being performed within the framework of traditional master-apprentice relation and this Law is renewed in 1986 and became Apprenticeship and Vocational Education Law (nr. 3308). The last arrangement under the name Restructuring in Vocational Education is made in 2002 and put forth as Vocational and Technical Education Law (nr. 4702). With this law (nr. 4702) name changes are made especially in school and law and name of the Apprenticeship Education Center changed to Vocational Education Center and Apprenticeship and Vocational Education Law changed to Vocational Education Law (Yaman ve Eldogan, 2004). Thus, apprenticeship in Turkey is a dual system based on labor market oriented training schemes, and is separated from the non-formal education. This system was established on the basis of the German dual system and run by the ministry through 321 vocational training centers. Some regions also have ‘supra-enterprise training centers’ run by the Confederation of Turkish Tradesmen and Craftsmen (TESK) that have operated in a similar way since 1991. Under the provisions of Tradesmen and Craftsmen Law No 507, TESK is legally responsible for training, testing, assessment and certification in unrecognized occupations where Ministry of National Education (MoNE) does not offer apprenticeship training (Vos and Unluhisarcikli, 2009).

Apprenticeship training includes the training of children and young people of secondary education age who have completed primary education but cannot further this education because of various reasons. Young people between the ages of 14 and 19, who have at least graduated from primary education, are eligible for an apprenticeship. According to the Law, apprenticeship training is offered in 89 fields in all provinces of the country. According to Apprenticeship and Vocational Education Legislation, the Vocational Educational System has established three basic fields of education, namely, formal vocational education, apprenticeship and vocational courses. In the year 2011 187,743 apprentices, were provided 150 apprenticeship educations in 150 professions in 317 Vocational Training Centers (MEB, 2012). Thus, graduation from apprenticeship by taking a Mastership examination is a requirement to open a craft workplace (ETF, 2010). Nowadays a good mix of school-based and work-based learning within the national ET systems exists and is facilitated by employers’ organizations in Turkey. Approximately, 70% of apprentices in industrial vocations are male, while females make up 70% of apprentices in the services sector. Apprentices are given placements in workplaces where they work a five-day week and get one-day training in the closest vocational training centre. By law, companies pay apprentices at least one third of a minimum salary, while MoNE pays their social insurance. Enterprises with more than 20 employees are obliged to provide workplace training, and enterprises with 10+ students or more than 200 employees must have established units to provide apprenticeship training (Majcher-Teleon & Bardak, 2011). The Union of Chambers and Commodity Exchanges of Turkey (TOBB) not only encourages its members to participate in the apprenticeship scheme, but also invests efforts and resources in its innovation and transfer to tertiary education.

In Turkey, according to State Planning Organization report, as a result of both the lack of integration of programs between vocational schools in higher education and vocational and technical secondary education institutions and the inability to update the vocational and technical education school and apprenticeship programs according to the demands of the labor market, employment rates for vocational and technical education graduates cannot be increased, thereby, the demand for vocational education decreases (SPO, 2006). Although well-established in Turkey, VET and apprenticeship learning suffer from low attractiveness. (Petkova, 2011) Thus, strong social partner involvement such as Chambers of Commerce, Trade Unions, Employment agencies, Employers’ organizations and Individual organizations will be needed in order to to improve the status of TVET apprenticeship in Turkey.

This research analyzes principals, teachers, apprenticeship students (apprentices), managers of chambers of commerce, employers and master trainers’ perceptions on the problems in TVET for
The aim of this research is to analyze the perceptions of principals, teachers, students (apprentices), managers of chambers of commerce, employers and master trainers on the problems in TVET for apprenticeship and thus the outcomes of this research are expected to address important implications on how apprenticeship training can be improved more and well-organized according to market needs.

Participants

This study was conducted in Muratpasa Vocational Center in Antalya in Turkey. Thus the population of the study consisted of 7 managers (principals) of Vocational Center, 86 teachers, 38 executive committee members of chambers of Commerce, 2000 apprenticeship students and students’ parents, master trainers, and employers. The sample of the study consisted of 6 vocational center managers, 7 teachers, 8 students (apprentices), 4 parents, 8 master trainers- in automobile electrical maintenance, hairdressing, office electronic equipments maintenance, automobile body repairing and painting, hospitality and food technology, electrical house equipments maintenance, automobile ventilation and air cooling system maintenance, wood furniture production- all (A, B, C, D, E, F, G, H) of whom are also in the position of employers and three (A, B, D) of whom are also in the position of managers of chamber of commerce. The fact that master trainers are also employers is common in Turkey as about 90% of master trainers in Turkey run small or medium enterprises (SMES). And the apprenticeship students get their training (practical education) in those SMES. As employers in SEMS also have a certificate of master trainers, they are formally nominated to train apprenticeship students in their own SMES.

Method

A qualitative approach was selected for this study because this research was more concerned with understanding individuals’ perceptions of the world and seeking insights rather than statistical analysis (Silverman, 2005). Because investigation of participants’ perceptions and experiences related to problems in technical and vocational apprenticeship education and training at work and training settings, work and training settings were viewed as an instrumental case study. Case studies can establish cause and effect, indeed one of their strengths is that they observe effects in real contexts, recognizing that context is a powerful determinant of both causes and effects. Further, contexts are unique and dynamic; hence case studies investigate and report the complex dynamic and unfolding interactions of events, human relations and other factors in a unique instance (Cohen Mannion & Morrison, 2007). Thus, the focus of this study was the problems experienced at vocational centers, work and training settings and their perceptions by informants.

Data Collection

In order to investigate participants’ perceptions on the problems in technical and vocational apprenticeship education and training, semi-structured interviews were used because it would provide an in depth exploration of the topic, it would allow the researchers the flexibility, for example, to change the order of questions, simplify the questions and to probe the interviews (Cohen, at all, 2007). Data were collected from September, 2011 to through January, 2012. This included a 45 minute recorded interviews with the informants with initial interview questions. Face-to-face interviews were done and informants’ experiences, thoughts and feelings were recorded in a taped diary.

Data Analysis
Data analysis began with repeated readings of interview transcripts from conversations with participants. The purpose was to determine the essence of the phenomenon and structures of experiences of participants related to the problems in technical and vocational apprenticeship education. During data analysis, the data were organized categorically and chronically, reviewed repeatedly and continually coded. Interview transcripts were regularly reviewed. In addition, data analysis process was aided by the use of a qualitative data analysis computer program called NVIVO. These kinds of computer programs do not actually perform the analysis but facilitate and assist it. That is NVIVO does not perform the analysis but only supports the researcher doing the analysis by organizing data and recodes and nodes etc (Kelle, 1995; Cohen at all, 2007).

**Interview Process and Mapping**

The aim of this study was to understand what problems are experienced in technical and vocational education and training for apprenticeship, what participants perceptions on those problems and their suggestions to solve those problems. Thus the mapping of interview questions was carried out in seven categories: the quality of master trainers in apprenticeship education and training, the problems peculiar to enterprises chosen by apprentices, the problems related to apprentices’ interaction with clients, the problems on the unity of theoretical courses in vocational centers and practices at work, the role of the coordinator teachers in solving problems experienced both at vocational centers and enterprises, the suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training and the views on compulsory education and its effect on TVET.

**Ethical Considerations**

Participants were briefed about the research aims, kept informed at all stages and be offered anonymity. A consent form was signed between researcher and the each participant about the use of the data in terms of how its analysis would be reported and disseminated. It was also tried to be careful not to impose researcher’s belief on others and researcher’s beliefs were secondary and the participants thinking be what was required.

**Findings**

The findings of the study were analyzed under seven categories: the quality of master trainers in apprenticeship education and training, the problems peculiar to enterprises chosen by apprentices, the problems related to apprentices’ interaction with clients, the problems on the unity of theoretical courses in vocational centers and practices at work, the role of the coordinator teachers in solving problems experienced both at vocational centers and enterprises, the suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training and the views on compulsory education and its effect on TVET.

**The quality of master trainers in apprenticeship education and training**

Firstly, the analysis of 6 vocational center managers’ perceptions related to the problems on the quality of master trainers in apprenticeship education and training showed that 83% of managers complained that the education and training for master trainers were insufficient, 33% complained about low education background of master trainers, bad modeling behaviors by master trainers and lack of in-service education for master trainers and 17% poor communication abilities of master trainers, neglecting theoretical education in vocational centers by apprentices due to over demands by master trainers, master trainers’ being indifferent to the training of
apprentices, lack of in service education for members of chambers of commerce and the perception of apprentices as being employers instead of being students by master trainers.

Secondly, the analysis of 7 teachers' perceptions related to the problems on the quality of master trainers in apprenticeship education and training showed that 71% of teachers complained that education and training for master trainers were insufficient, 43% complained about master trainers’ being unaware of teaching methods and techniques, master trainers’ being rude and cruel to apprenticeship students and low education background of master trainers and 14% masters’ being indifferent to education supplied for them to become master trainers, master trainers’ insufficiency of vocational and technical knowledge, the perception of apprentices as being employers instead of being students by master trainers and lack of in-service education for master trainers periodically.

Thirdly, the analysis of 8 apprenticeship students’ perceptions related to the problems on the quality of master trainers in apprenticeship education and training showed that 25% of apprenticeship students complained about master trainers’ being unwilling to their apprenticeship students to have their own enterprises, master trainers’ easily getting angry with apprenticeship students and shouting at them and master trainers’ giving financial punishment to apprenticeship students such as reduction in wages and reimbursement of the defects by students and 13% a punishment of cleaning the workplace of the enterprise by master trainers, master trainers’ guiding the unwanted clients to the apprentices, master trainers’ being unwilling to explain in practice what is taught at school theoretically, punishment to apprentices especially by forcing them to work in their work off times, differences in what apprenticeship students are thought theoretically and what is asked to do in practice in enterprises and master trainers’ being rude and cruel to apprenticeship students. Apprenticeship students were not asked to express their opinions on mastership education and training as they did not have an idea on these issues.

Fourthly, the analysis of 8 participants’ perceptions from the group of master trainers, employers and managers of chamber of commerce related to the problems on the quality of master trainers in apprenticeship education and training showed that 38% of master trainers, employers and managers of chamber of commerce complained about poor education and training background of master trainers and masters’ being indifferent to education supplied for them to become master trainers, 25% lack of in-service education for master trainers periodically and the perception of apprentices as being employers instead of being students by master trainers and additionally 13% misleading modeling behaviors by master trainers, lack of in-service education organized by chambers of commerce, master trainers’ letting the apprentices do jobs on which they are not capable of, causing financial deficiency, master trainers’ distrust to apprentices, master trainers’ giving financial punishment to apprenticeship students such as reduction in wages and reimbursement of the defects by students and master trainers being unable to get the apprenticeship students to enjoy what they are doing for their professional life.

Finally, the analysis of 4 parents’ perceptions related to the problems on the quality of master trainers in apprenticeship education and training showed that 50% of parents complained about master trainers’ insufficient teaching qualities and performance and master trainers’ being rude and cruel to apprenticeship students and 25% the insufficiency of training by master teachers for gaining a vocation and masters’ being indifferent to education supplied for them to become master trainers.

The problems peculiar to enterprises chosen by apprentices

Firstly, the analysis of 6 vocational center managers’ perceptions related to the problems peculiar to enterprises chosen by apprentices showed that 50% of managers complained about apprentices’ not being able to attend to courses at vocational centers due to intensity of the work at workplaces of enterprises, 33% apprentices’ choosing vocations which are not compatible with their skills either physically or psychologically, 17% apprentices’ not choosing their vocations with their own will, apprentices’
having to work overtime until late in the evenings at workplaces of some enterprises, inefficiency of
the workplace settings of some enterprises for the development (physical, psychological, cognitive and social) of apprentices, the
diversity between the settings where apprentices live and work socio-economically and socio-culturally and unhealthy peculiarities of some vocations.

Secondly, the analysis of 7 teachers’ perceptions related to the problems peculiar to enterprises
chosen by apprentices showed that 29% of teachers complained about lack of sufficient tools, equipments and machines at workplaces or shops of the enterprises and low standards of enterprises where apprentices are employed. 14% stressed the necessity of some practices at work to be done correctly at a very first time, 14% complained about apprentices’ not being able to attend to courses at vocational centers due to intensity of the work at workplaces of enterprises, apprentices’ choosing vocations which are not compatible with their skills either physically or psychologically, apprentices’ having to work overtime until late in the evenings at workplaces of some enterprises, owing to no work division in big-scaled enterprises apprentices’ having to do the same work due to modular work all the time and unhealthy peculiarities of some vocations.

Thirdly, the analysis of 8 students’ perceptions related to the problems peculiar to enterprises
chosen by apprentices showed that 25% of the students complained about apprentices’ having to work overtime until late in the evenings at workplaces of some enterprises and dangerous peculiarities of some vocations in terms of the risk of being injured or loss of life, 13% apprentices’ serving alone out of workplace without the guidance or coaching of master trainers and apprentices’ having to work even in the times when they are public holidays such as weekends and feasts for others at workplaces of some enterprises.

Fourthly, the analysis of 8 participants’ perceptions from the group of master trainers, employers and managers of chamber of commerce related to the problems peculiar to enterprises chosen by apprentices showed that 13% of master trainers, employers and managers of chambers complained about apprentices’ choosing vocations which are not compatible with their skills either physically or psychologically, low standards of enterprises where apprentices are employed, unhealthy peculiarities of some vocations, apprentices’ having to go for long journeys for service outside, apprentices’ having to work overtime in some vocations, the difficulty of the work in the enterprises due to clients’ over demands and dangerous peculiarities of some vocations in terms of the risk of being injured or loss of life.

Finally, the analysis of 4 parents of apprentices’ perceptions related to the problems peculiar to enterprises chosen by apprentices showed that 25% of parents complained about dangerous peculiarities of some vocations in terms of the risk of being injured or loss of life, apprentices’ having to go for long journeys for service outside, apprentices’ having to work overtime in some vocations, apprentices’ having to work even in the times when they are holidays such as weekends and feast for others at workplaces of some enterprises, apprentices’ being afraid of doing something wrong or making something out of order while repairing something and the transformation in vocations as replacing and fixing something instead of repairing them.

The problems related to apprentices’ interaction with customers

Firstly, the analysis of 6 vocational center managers’ perceptions related to the problems on apprentices’ interaction with customers showed that 67% of managers complained about apprentices’ poor communication abilities and 17% the problems of apprentices’ being tried to solve at workplace of the enterprise instead of vocational center or school, the necessity of intensive communications with clients in some vocations such as hair dressing, electrical house equipments maintenance, automobile ventilation and air cooling system maintenance, bad modeling behaviors by some clients, clients’ bringing a suit to a court for apprentices or enterprise due to the defected service or damage they experienced, apprentices’ causing financial lost for clients and apprentices’ having to communicate with or serve to the clients no matter how inexperienced they are.
Secondly, the analysis of 7 teachers’ perceptions related to the problems on apprentices’ interaction with customers showed that 57% of the teachers complained about keeping apprentices away from communication with clients sufficiently, which prevents apprentices’ development and have problems in terms of communication in advance, 43% apprentices’ poor communication abilities, 29% apprentices’ being unable to develop communication styles compatible to the characteristics of the clients and 14% apprentices’ being unable to speak a foreign language.

Thirdly, the analysis of 8 apprenticeship students’ perceptions related to the problems on apprentices’ interaction with customers showed that 25% of the students complained about clients rejecting or being unwilling to getting serviced by apprentices and 13% bad modeling by some clients, clients’ thinking that some negative happenings caused by apprentices’ being unskilled or inexperienced and apprentices’ being unable to develop communication styles compatible to the characteristics of the clients.

Fourthly, The analysis of 8 participants’ perceptions from the group of master trainers, employers and managers of chambers of commerce’ related to the problems on apprentices’ interaction with customers showed that 63% of master trainers, employers and managers of chambers of commerce complained about keeping apprentices away from communication with clients sufficiently, which prevents apprentices’ development and have problems in terms of communication in advance, 50% apprentices’ poor communication abilities, 25% apprentices’ being unable to speak a foreign language and 13% lack of enterprises in informing and educating apprentices on the effective communication with clients.

Finally, the analysis of 4 parents of apprentices’ perceptions related to the problems on apprentices’ interaction with customers showed that 50% of the parents complained about keeping apprentices away from communication with clients sufficiently, which prevents apprentices’ development and have problems in terms of communication in advance and 25% slipshod of apprentices’ uniforms at workplace (dirty or bad smelling) and apprentices’ poor communication abilities.

The problems on the unity of theoretical courses in vocational centers and the practices at work

Firstly, the analysis of 6 vocational center managers’ perceptions related to the problems on the unity of theoretical courses in vocational centers and the practices at work showed that 83% of the managers complained about lack of unity of theoretical courses in vocational centers and the practices at work, 50% master trainers’ being indifferent to education in vocational centers during practices at work and master trainers’ not choosing pieces of work in which apprentices are able to practice what they were taught during theoretical courses in vocational centers, 33% apprenticeships’ attending to vocational centers only for diplomas but learn something for their vocations and 17% teaching apprentices who failed in their first year in vocational high schools but attend vocational centers the theoretical courses of second and third grades of vocational and technical high schools, apprenticeship students’ being unable to understand courses taught when they started to attend courses in vocational centers due to their insufficient cognitive and kinesthetic background, lack of courses such as art, physical education and music in vocational education centers, insufficiency of the practices at work place in the enterprises in term of the goals to be reached in the curriculum, lack of harmony of the vocations carried out at the workplaces with the vocations taught in vocational centers and the gap between theoretical courses in vocational centers and the practices at work.

Secondly, the analysis of 7 teachers’ perceptions related to the problems on the unity of theoretical courses in vocational centers and the practices at work showed that 100% of teachers complained about lack of unity of theoretical courses in vocational centers and the practices at work, 29% lack of harmony of the vocations carried out at the workplaces with the vocations taught in vocational centers and 14% inconsistent modular education practices at vocational education centers, insufficiency
apprenticeship teachers’ abilities in practices, lack of guidance to apprentices at work by teachers, master trainers’ preferring conventional methods with which they were trained, no control of apprentices’ practices at work whether they were compatible with the curriculum in vocational centers, the difference between the vocational text books in vocational centers and the vocational text books at work and master trainers’ being indifferent to education at vocational centers during practices at work.

Thirdly, the analysis of 8 apprenticeship students’ perceptions related to the problems on the unity of theoretical courses in vocational centers and the practices at work showed that 63% of apprenticeship students complained about lack of unity of theoretical courses in vocational centers and the practices at work, 38% master trainers’ being indifferent to education at vocational centers during practices at work and 13% lack of some practices peculiar to a certain vocations at the workplaces of those enterprises and students sharing the same class with the students of other vocations in vocational education centers.

Fourthly, the analysis of 8 participants’ perceptions from the group of master trainers, employers and managers of chambers of commerce related to the problems on the unity of theoretical courses in vocational centers and the practices showed that 75% of participants from the group of master trainers, employers and managers of chambers of commerce complained about lack of unity of theoretical courses in vocational centers and the practices at work, 50% master trainers’ being indifferent to education at vocational centers during practices at work, and 13% lack of education in practices at vocational centers, no nomination of the masters from enterprises to the courses in vocational centers and lack of teachers in vocational centers from vocations compatible with the vocations at work.

Finally, the analysis of 4 parents of the apprentices’ perceptions related to the problems on the unity of theoretical courses in vocational centers and the practices at work showed that 75% of the parents complained about lack of unity of theoretical courses in vocational centers and the practices at work and 50% master trainers’ being indifferent to education at vocational centers during practices at work.

The role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises

Firstly, the analysis of 6 vocational center managers’ perceptions related to the role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises showed that 33% of managers complained about coordinator teachers’ only checking attendance of apprenticeship students at the workplaces of enterprises but nothing else and 17% master trainers’ being reluctant to teachers’ intervention from vocational centers to the problems experienced at the work places of the enterprises, coordinator teachers’ having no authority over the problems experienced at the work places of the enterprises, lack of guidance service in vocational education centers, coordinator teachers’ being out of the related fields in some vocations, coordinator teachers’ not informing master trainers on the education in vocational centers and that coordinator teachers’ warning the responsible staff of the enterprises about the lack of unity with the apprenticeship training program could be misunderstood in terms of insufficiency of the enterprises.

Secondly, the analysis of 7 teachers’ perceptions related to the role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises showed that 43% of the teachers complained about coordinator teachers’ only checking attendance of apprenticeship students at the workplaces of enterprises and coordinator teachers’ having no authority over the problems experienced at the work places of the enterprises and 14% coordinator teachers’ being informed too late about the problems experienced by apprentices in the enterprises, apprentices’ being unable to share the problems with coordinator teachers, apprentices’ not seeing the coordinator teachers as authority who would solve the problems they experienced, master trainers’ not giving right information such as absenteeism and leaving about apprentices to coordinator teachers and coordinator teachers’ neglecting their duties.

Thirdly, the analysis of 8 apprenticeship students’ perceptions related to the role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises showed
that 25% of the students complained about lack of communication between apprentices and coordinator teachers and 13% master trainers’ being reluctant to coordinator teachers’ vocational guidance or coaching for apprentices at the work places of the enterprises, coordinator teachers’ willing to communicate with master trainers but students at the work places of enterprises, coordinator teachers’ being unable to check and observe students due to closed workplaces of the enterprises, coordinator teachers’ being unable to observe students when they were out of the workplaces of the enterprises for service and master trainers’ not giving right information such as absenteeism and leaving about apprentices to coordinator teachers.

Fourthly, the analysis of 8 participants’ perceptions from the group of master trainers, employers and managers of chambers of commerce related to the role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises showed that 38% of participants complained about lack of coordinator teachers’ contribution to the problems experienced by apprentices, 25% coordinator teachers’ only checking attendance of apprenticeship students at the workplaces of enterprises and 13% lack of the support of the parents of apprentices for the solution of the problems apprentices experienced.

Finally, the analysis of 4 parents of apprentices’ perceptions related to the role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises showed that 50% of the parents complained about coordinator teachers being indifferent to the problems of apprentices at the workplaces of the enterprises and 25% seldom visits by coordinator teachers to workplaces of apprentices, coordinator teachers’ only checking attendance of apprenticeship students at the workplaces of enterprises and apprentices’ not seeing the coordinator teachers as authority who would solve the problems they experienced.

The suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training

Firstly, the analyses of 6 vocational center managers’ suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training showed that 50% of the managers suggested that the time of education and training should be extended in terms of days and years and 17% that average age to start vocational education and training should be reduced, that vocational education and training should be updated in time according to the requirements of the changing market needs and curriculum in vocational education, that training should be improved according to the requirements of the changing market needs and that master trainers’ education and training courses should be done in coordination with universities.

Secondly, the analyses of 7 teachers’ suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training showed that 29% of the teachers suggested that vocational guidance should be supplied in choosing a vocation and 14% that modular system in vocational education centers should be carried out regularly and strictly, that coordinator teachers should also be nominated as vocational guides or coaches at the workplaces of the enterprises where practices for vocations are carried out, that apprentices’ parents should be included in the system and benefited more, that workshop equipments of vocational education centers should be improved, that education in practice should not only be carried out at work but also in vocational education centers as well, that the number of apprenticeship students in classrooms should be decreased, that all partners in apprenticeship education should work in harmony, and that courses such as art, music and physical education should be added to curriculum and social activities should also be arranged.

Thirdly, the analyses of 8 apprenticeship students’ suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training showed that 25% of the students suggested that the time and
term of education and training should be extended one more year in vocational education centers, 13% that motorcycle and bicycle parks should be built in the gardens of vocational education centers, that students should not be prevented and from smoking and punished and that there should not be strict rules for clothes and hair, beard and mustache styles.

Fourthly, the analysis of 8 participants’ suggestions from the group of master trainers, employers and managers of chambers of commerce on how to solve the problems related to apprenticeship education and training and to improve apprenticeship training showed that 50% of the participants from the group of master trainers, employers and managers of chambers of commerce suggested that vocational education should be started at junior high school level, 25% that vocational guidance should be supplied in choosing a vocation and that average age to start vocational education and training should be reduced and 13% that vocational education and training in developed countries should be benchmarked, that education terms in apprenticeship education should be extended one more year, that the periods when there is lots of work to do at the workplaces of enterprises should be taken into consideration while planning apprentices placements, that workshop equipments of vocational education centers should be improved and that standards of the workplaces of the enterprises chosen for apprenticeship education should be at acceptable and high levels.

Finally, the analyses of 4 parents of apprentices’ suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training showed that 25% of the parents demanded that the perception that the students whose intelligence qualities are lower attend vocational education and training instead of general education should be changed and suggested that vocational education should be started at junior high school level.

The views on compulsory education and its effect on TVET

Firstly, the analyses of 6 vocational center managers’ views on compulsory education and its effect on TVET showed that 50% of the managers demanded that vocational centers should be transformed to schools in formal education and 17% taught that vocational education centers could be run or functioned by private institutions instead of public ones and that vocational education could be started at junior high school level.

Secondly, the analyses of 7 teachers’ views on compulsory education and its effect on TVET showed that 14% of the teachers demanded that average age to start vocational education and training should be reduced and that guidance should be supplied in choosing a vocation and 14% of them also taught that some periods of apprenticeship education and training could be carried out at master level and vocational education could be started at junior high school level.

Thirdly, the analyses of 8 apprenticeship students’ views on compulsory education and its effect on TVET showed that only 13% of the students taught that as long as graduates of general high schools attend apprenticeship education and training, they will have difficulty in learning vocation and acquiring the required cognitive and kinesthetic skills.

Fourthly, the analyses of 8 participants’ views from the group of master trainers, employers and managers of chambers of commerce on compulsory education and its effect showed that 63 of the participants from the group of master trainers, employers and managers of chambers of commerce taught that the system of vocational education and training after junior high school level (10th, 11th and 12th grades) had effected TVET negatively and that the longer compulsory general education, the less effective vocational education and training.

Finally, the analyses of 4 parents of apprentices’ views on compulsory education and its effect on TVET showed that 75% of parents taught similarly to those of the participants from the group of master trainers, employers and managers of chambers of commerce that the system of vocational education and training after junior high school level (10th, 11th and 12th grades) had affected TVET negatively.
Discussion

As analyzed all the views of vocational center managers, teachers, students, master trainers, employers, managers of commerce and parents on the quality of education and training by master trainers, we might conclude that the education and training by master trainers were not taken into consideration as required and not found as very important. This is consistent with the finding in Yaman & Eldogan (2004)’ study called “Applicability analysis for the vocational knowledge course program in vocational education centers for auto motor repairing” that when the masters were considered on the basis of the education of the student, it was observed that there was a general pessimism on the issue of masters’ providing education in accordance with the curriculum.

One of the remarkable findings was the fact that apprentices were perceived as employers instead of being students by master trainers. Additionally, participant A from the sample of master trainers, employers and managers of chambers of commerce admitted that misleading modeling behaviors were performed by master trainers at the workplaces of the enterprises, sounded like a self-criticism. All participants agreed that training and education supplied for master trainers were insufficient due to their time and content. The suggestion that the education and training courses should be done in coordination with universities could increase their efficiency suggested by one of the vocational center managers (MC) and support the solution of this problem. Additionally, the fact that master trainers joined with apprenticeship training just after getting their certificates at the end of a course of 40 hours according to regulations might cause insufficiency of knowledge for them in terms of changes in their jobs and out of date in time.

As understood from analysis related to the problems peculiar to enterprises chosen by apprentices, apprentices’ having to work overtime in some vocations was defined as the necessity of those vocations by managers, teachers, students and parents. In vocations such as hairdressing and air cooling system maintenance were the cases especially in summer periods during the year. Moreover, parents especially stressed the negative effects of the apprentices’ working over time on their social life. Dangerous peculiarities of some vocations in terms of the risk of being injured or loss of life were mentioned by students, master teachers and parents. Especially vocations related to electrical maintenance and wood furniture production are demanded less by apprentices due to their dangerous peculiarities such as electrical shock and possible harm of sharp tools to body. Apprentices’ not being able to attend to courses at vocational centers due to intensity of the work at workplaces of enterprises was stated by teachers and managers, which affected students’ theoretical education and attendance to school negatively. The reason for this might be the fact that especially for the vocation of hair dressing before feasts and New Year apprentices were not able to attend courses at school due intensity at work. Low standards of some enterprises where apprentices were employed were complained by teachers and master trainers. The reasons for those complaints could be, as an example, the fact that apprenticeship education and training supplied as practices for those who worked at a wood furniture factory with 200 employees or more are not the same as for those who worked at a small enterprise producing wooden doors for houses with ten or fewer employees. Likewise, apprenticeship education and training supplied for practices for those who worked at a five star hotel with 200 employees or more are not the same as for those who worked at a small enterprise serving food with five or few employees. The challenge on this issue is also mentioned in ETF’s working paper (2010) ‘As only a slight majority of vocational students have access to practical training in enterprises, the key challenge is to ensure a larger number of in-company placements for students and teachers so that they can gain practical experience in line with the latest developments in a specific sector or industry.’ Indeed, every vocation has its own advantages and disadvantages, thus choosing the right vocation compatible with the abilities of the apprentices is of great importance. If an apprentice should choose a vocation not compatible with his or her abilities due to not knowing much about those vocations, he or she has to change the vocation in the short term or has to work unwillingly in the long term.
As for analysis of the problems related to apprentices’ interaction with clients in general, apprentices had poor communication abilities, which was fundamental for the problems they experienced with the clients. Apprentices’ being unable to speak a foreign language was the other problem mentioned by teachers and master trainers. The problem that apprentices cannot speak a foreign language can be solved by developing the curriculum of the courses taught in vocational centers. That master trainers and employers in the enterprise kept apprentices away from communication with clients sufficiently could prevent apprentices’ development and having problems in terms of communication in advance. Besides, as understood from analysis, managers of vocational center mentioned about some clients could be bad modeling for apprentices, which could affect apprentices who were still teenagers negatively. Additionally, that the problems of apprentices were tried to solve at workplaces of the enterprises instead of vocational center could cause apprenticeship being alone with their problems without the help of managers and teachers at vocational center.

As a result of the analysis of the problems on the unity of theoretical courses in vocational centers and the practices at work, all participants agreed that there was lack of unity of theoretical courses in vocational centers and the practices at work and theoretical courses were not taken into consideration during practices at workplaces of the enterprises. The reason for this issue could be the differences in perceptions between master trainers and managers of vocational centers. Master trainers B, C and D explained that there were pieces of works to be done every day at workplaces of the enterprises and it was difficult to take care of and follow the curriculum of vocational centers as an answer to the reason why they were indifferent to education at vocational centers during practices at work. Manager B and D explained that some master trainers accepted the day when apprentices were at vocational centers as their day off and did not let them extra day off during the week, which caused low attendance to courses at vocational centers as an answer to one of the reasons why apprentices were unwilling to attend to vocational centers.

Because there were no or few teachers in some vocations as mentioned by Manager D, teachers out of the fields in some vocations were nominated as coordinator teachers to observe apprentices at work, which affected the function of coordinator teachers negatively. Coordinator teachers were unable to observe some students in vocations such as office electronic equipments maintenance and electrical house equipments maintenance as the workplaces of the enterprises could be closed during services out or open but apprentices were out for services. Therefore, coordinator teachers were unable to observe apprentices when they were performing in practices of what they were taught theoretically and assess them. The complaint of the apprentice F in electrical house equipments maintenance ‘How will I know? I am out for service and don’t meet them’ as an answer to the question ‘Do teachers from vocational centers come and observe you at work? could explain and sum up this issue.

Besides, parents of the apprentices demanded that the teachers should often visit workplaces of the enterprises and solve their problems at work setting. Additionally, coordinator teachers could not do more than check the attendance of apprenticeship students at the workplaces of enterprises. The reason for this could be the fact that coordinator teachers had the responsibility for education and training of the apprentices but no or less authority to perform their duties effectively as MC (Manager C) complained that ‘Coordinator teachers’ had no authority over the problems experienced at the work places of the enterprises’.

When the suggestions on how to solve the problems and to improve apprenticeship education and training analyzed in general, there was an agreement that average age to start vocational education and training should be reduced because of the perception that it was too difficult to teach new skills easily and effectively to those over 15 years old and that modular system should be put in action effectively. Additionally, one of the teachers suggested that modular system should be put in action effectively, which is consistent with the Majcher-Teleon & Bardak (2011)’s view ‘The modular training curricula of apprenticeships and public education centers mean some pathways may combine different types of courses in order to reach the minimum level of formal apprenticeship requirements. For example, the apprenticeship system requires a minimum of 256 hours of training over one year, or 511 hours over two years that can be topped-up with public education courses. The new Vocational
Qualifications Authority (MYK) established in 2006 is expected to provide recognition and certification of such courses and combinations’ (Majcher-Teleon & Bardak, 2011).

Finally, when participants’ views on compulsory education and its effect on TVET analyzed in general, it could be concluded that they all shared the idea that vocational education and training should be started at younger ages as pedagogically it was really very hard to teach new skills easily and effectively to those over 15 years old, which reminded us the proverb ‘You cannot teach an old dog new tricks’. The new 4+4+4 (Primary+Junior High School+ High School) reform in Turkish education system in Turkey is expected to solve this problem if students are given a chance to start vocational education and training in the second 4 year education term. Thus, the enrolment rate to the VET can reach the target, of 9th Development Plan (2007–2013), which investigated that the 65% of the students are to be enrolled to the VET.

Implications

This research analyzes vocational center managers, teachers, apprentices, apprentices’ parents, managers of chambers of commerce, employers and master trainers’ perceptions on the problems in apprenticeship education and training. Thus the findings of the research have important implications about how apprenticeship training can be updated, improved and well-organized according to market needs based on the problems experienced in apprenticeship education and training in Turkey.

In addition, this study suggests important implications about what can be done to improve apprenticeship education and training in Turkey based on the suggestions on how to solve the problems related to apprenticeship education and training and to improve apprenticeship education and training by vocational center managers, teachers, students, managers of chambers of commerce, employers and master trainers as real partners of apprenticeship education and training, themselves, expressed their views related to the problems and suggested solutions on how to overcome the problems experienced in apprenticeship education and training.

Conclusion

In apprenticeship education and training in Turkey, there could be various problems related to the quality of master trainers in apprenticeship training such as insufficiency of education and training for master trainers, low education background of master trainers, bad modeling behaviors by master trainers, lack of in-service education for master trainers, poor communication abilities of master trainers, master trainers’ being indifferent to the training of apprentices, the perception of apprentices as being employers instead of being students by master trainers, master trainers’ being unaware of teaching methods and techniques, master trainers’ being rude and cruel to apprenticeship students, master trainers’ being unwilling to their apprenticeship students to have their own enterprise and master trainers’ demanding apprenticeship students more than they could do.

The problems peculiar to enterprises chosen by apprentices in apprenticeship education and training could be apprentices’ not being able to attend to courses at vocational centers due to intensity of the work at workplaces of enterprises, their choosing vocations which are not compatible with their skills either physically or psychologically and without their own will, their having to work overtime until late in the evenings at workplaces of some enterprises, inefficiency of the workplace settings of some enterprises for their development (physical, psychological, cognitive and social), the diversity between the settings where apprentices live and work socio-economically and socio-culturally, insufficient health and security conditions in some vocations, low standards of enterprises where apprentices were employed, their serving alone out of workplace without the guidance or coaching of master trainers and the transformation in vocations as replacing
and fixing something instead of repairing them.

As for the problems related to apprentices’ interaction with customers, there could be issues such as apprentices’ poor communication abilities, the problems of apprentices’ being tried to solve at workplace of the enterprise instead of vocational center or school, bad modeling by some clients, their being put on blame by clients due to the defected service or damage they experienced, their causing financial lost for clients, their having to communicate with or serve to the clients no matter how inexperienced they are, their being unable to speak a foreign language and keeping apprentices away from communication with clients sufficiently.

Besides, there could be some problems on the unity of theoretical courses in vocational centers and the practices at work such as lack of unity of theoretical courses in vocational centers and the practices at work, master trainers’ being indifferent to education in vocational centers during practices at work, apprenticeships’ attending vocational centers only for diplomas but learn something for their vocations, the high levels in theoretical courses, apprentices’ insufficient cognitive and kinesthetic background, lack of courses such as art, physical education and music in vocational education centers, insufficiency of the practices at work place in the enterprises in terms of the goals to be reached in the curriculum, lack of harmony of the vocations carried out at the workplaces with the vocations taught in vocational centers, the gap between theoretical courses in vocational centers and the practices at work, inconsistent modular education practices at vocational education centers, lack of guidance to apprentices at work by teachers, apprentices’ sharing the same class with the students of other vocations in vocational education centers and lack of teachers in vocational centers from vocations compatible with the vocations at work.

Additionally the problems related to the role of the coordinator teachers in solving problems experienced both in vocational centers and enterprises could be coordinator teachers’ only checking attendance of apprenticeship students at the workplaces of enterprises but nothing else, master trainers’ being reluctant to teachers’ intervention from vocational centers to the problems experienced at the workplaces of the enterprises, coordinator teachers’ having no authority over the problems experienced at the work places of the enterprises, lack of guidance service in vocational education centers, coordinator teachers’ being out of the fields in some vocations, coordinator teachers’ not informing master trainers on the education in vocational centers, misunderstandings in terms of insufficiency of the enterprises, coordinator teachers’ being informed too late or less about the problems experienced by apprentices and neglecting their duties and lack of the support of the parents of apprentices for the solution of the problems apprentices experienced.

Participants’ suggestions and views on how to overcome the difficulties and problems experienced in apprenticeship education and training were the extension of education and training periods, starting apprenticeship education at younger ages, update of apprenticeship education and training and its curriculum according to the requirements of the changing market needs, supplying vocational guidance, putting modular system in action effectively, participation in decision making by parents, increasing the quality in education and training but decrease the number of students per classroom and teacher, no strict rules but more facilities for students, high standards for the workplaces of the enterprises, increasing quality and attractiveness of TVET education, opening private vocational centers and transformation of vocational centers to formal schools.

To sum up, there are intensive and various kinds of problems and difficulties in apprenticeship education and training to be solved and overcome. Thus, all partners had better be aware of the difficulties and problems which are likely to affect TVET apprenticeship education and training negatively in order to create an improved, up-to-date and well organized TVET apprenticeship education and training according to the requirements of the changing market needs.

References

Ilhan GUNBAYI
Assoc. Prof. Dr., Akdeniz University
Faculty of Education, Educational Sciences Department, Educational Administration, Supervision,
Planning and Economy Program
Dumlupınar Bulvarı, Antalya 07058 TURKEY
Phone: +902423102135 Fax: +902422261953
E-mail: igunbayi@akdeniz.edu.tr
or gunbayi@hotmail.com

Mustafa OZEL
M.A. Student and TVET Teacher, Akdeniz University
Faculty of Education, Educational Sciences Department, Educational Administration, Supervision,
Planning and Economy Program
Dumlupınar Bulvarı, Antalya 07058 TURKEY
Phone: +902423102135 Fax: +902422261953
E-mail: mustafaozel54@hotmail.com