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Difficulties Apprenticeship Trainers in Secondary Vocational Education Deal within their Educational Work: A Greek Case Study

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Abstract

The institution of the Post-Secondary Year - Apprenticeship Class was introduced in Greece in 2013 and after its pilot phase, its application in Vocational High Schools (EPAL) throughout the country was expanded in 2017. After the completion of four years of presence and implementation of the institution, with significant benefits for the apprentices, some factors emerge that make the participation and operation of the trainers involved in the Apprenticeship difficult. The aim of this study is to record, investigate and interpret a) the difficulties trainers encountered in their educational work and b) the necessary supplies they utilized to deal effectively with these difficulties. The sample was fifteen (15) trainers of EPAL who participated in the implementation of the Apprenticeship. The qualitative method was selected for the research, with semi-structured interviews as a tool for data collection and thematic analysis for their analysis. According to the findings of the research, trainers face difficulties in their educational work, mainly in the extensive course material, the low level of knowledge and the indifference of apprentices. The main means they use in the classroom to manage and deal with these difficulties are the very good knowledge of their specialized subject, the extensive educational experience, the application of the principles and practices of Adult Education and their skills. The present study aims to contribute, through the utilization of the research conclusions, to the feedback of education executives and trainers for the functional improvement and enhance the effectiveness of the institution.

Keywords: Apprenticeship, Vocational High Education (EPAL), Professional Development, Adult Education

1. Introduction

In recent years at the European level the governments of many countries have recognized that the role of Apprenticeship is crucial:

- ❖ in the combating youth unemployment,
- ❖ in improving the professional skills of the adult workforce,

- ❖ to better match training and labor market needs and
- ❖ to facilitate the transition to employment, agree to formulate a common strategy, promote and implement reforms and investments of significant resources to introduce new or strengthen existing Apprenticeship programs under a specific framework of guidelines.

The Greek state, in its effort to harmonize with the European directives and to use the given positive European experience and the policies of the European Union, dynamically restored the institution of Apprenticeship and made it a priority for the upgrading of VET (Vocational Education and Training).

2. The apprenticeship in Greece

During the period 2013-2016, the Greek state enacted a series of legislative provisions concerning the structure, operation and organization of the Apprenticeship system. New Apprenticeship programs, in parallel with those already offered, were introduced, resulting in a national Apprenticeship system that includes:

- a) The 49 EPAS Apprenticeship Schools, under the auspices of OAED (Labor Force Employment Organization)
- b) The Post-Secondary Year-Apprenticeship Class of EPAL supervised by the Directorate of Vocational Education of the Ministry of Education and
- c) The Apprenticeship Program of IEK (Vocational Training Institutes), under the auspices of GSVETLLY (General Secretariat of Vocational Education, Training, Lifelong Learning & Youth). By 2021, when the evaluation of the entire Apprenticeship system will have been completed and decisions will be made regarding its future structure, all three programs will coexist, operating in parallel.

The financial crisis of 2008 brought a deep recession to the Greek economy with negative effects on employment rates in almost all age groups and in almost all sectors, with small and medium-sized enterprises having been hit hard. These unfavorable developments that are happening in the country, are a great challenge for the Apprenticeship system both in terms of increasing the enrollment of apprentices and in terms of their future transition to regular employment in the labor market (CEDEFOP, 2018).

2.1 The institution of the Post-Secondary Year – Apprenticeship Class

The institution of the Post-Secondary Year - Apprenticeship Class, introduced in 2013, is built on formal education and constitutes a continuation of it as non-formal (optional) education. It is a learning environment based on the dual system of VET, in which the learning time alternates between a) the school unit with the teaching of specialty courses and preparatory courses for the certification and b) the workplace. The implementation of the Apprenticeship Class is supervised by the Directorate of Vocational Education of the Ministry of Education, while its operation is co-financed by European and national resources (Paidousi, 2014).

It is primarily aimed at young adults and GEL (General Lyceum) graduates and holders of EPAL degrees, who are out of training and employment, and have the right to participate. Their selection is based on criteria such as the high school diploma (GEL or EPAL), the degree of the EPAL degree and finally the age. Study in the Apprenticeship Class lasts nine (9) months. The apprentices attend the laboratory course of their specialty for one day (7 teaching hours) per week and a total of two hundred and three (203) hours, while in the professional space of a public or private body they follow a training program of twenty-eight (28) hours per week in four (4) days. The process of implementation of the Apprenticeship Class is subject to a regulatory framework, institutionalized by the Ministry of Education, which determines: the employment contract, trainers in the school unit, supervisors, instructors in the workplace, remuneration and full insurance and employment rights of apprentices. The compensation of the apprentices is set at seventy five percent (75%) of the minimum wage of the unskilled worker and is divided into a subsidy from the Ministry of Education through the Partnership Agreement for the Development Framework (PA) and into monthly payment by the employer of the private or public body that has undertaken their education.

By the participation of the graduates of EPAL in the institution of apprenticeship, their smooth and safe entry into the labor market is attempted, with the aim of supporting them after obtaining their degree. At the same

time, unlike other forms of training in the workplace, it is ensured, through the implementation of a specific Curriculum, that students acquire essential knowledge, relevant to their specialty. Upon completion of the program, graduates obtain a Degree in Vocational Education and Training level 5 of the National Qualifications Framework, which is awarded after the completion of the certification of their qualifications by the EOPPEP (National Organization for the Certification of Qualifications and Vocational Guidance). They also gain valuable work experience which leads them to obtain a license to practice. So far, two certification exams have been held (June 2018, February 2019) for the first two phases of implementation of the institution and already more than 1,500 graduates have obtained a level 5 degree in their specialty. The success rate in these exams ranged from 75-80%.

The European Commission praised the program "Post-Secondary Year - EPAL Apprenticeship Class" in the annual report on the Structural and Investment Funds. The European Commission includes the "Post-Secondary Year - Apprenticeship" as an example of good practice of the European Social Fund (ESF) for "Spreading apprenticeship programs across the country as a path to excellence" at both national and European level.

2.2 Implementation phases of the Post-Secondary Year - Apprenticeship Class

After the implementation of the pilot application in the school year 2016-2017, the program of the Apprenticeship Class is developed and evolved (CEDEFOP, 2018). From the completion of the four phases of successful implementation of the program, very encouraging data emerge for the future of the institution in Greece. Specifically, there is a continuous integration of new specialties (2016-2017: 6 specialties, 2019-2020: 29 specialties), a gradual increase in the number of participants (+ 231% compared to the school year 2016-2017), and the school units that have included Apprenticeship in their educational process (+ 49% in relation to the school year 2016-2017), as well as an increase in the number of Apprenticeship departments that operate in them (+ 128% in relation to the school year 2016-2017).

The criteria set by the Ministry of Education for the selection and gradual integration of the specialties in the Apprenticeship Class are the following: to belong to the specialties in different fields, to create departments with a sufficient number of apprentices, a prospect should exist for graduates to be absorbed in the labor market and a sufficient number of posts to be available in the private and public sectors.

Despite the ongoing development of the institution and the improvement initiatives of the Greek state, the challenges that still need to be addressed are a) the assignment of roles, the cooperation and coordination of the stakeholders and b) the response of the content of the apprenticeship education and training with the labor market.

3. Apprenticeship trainer's role

The active participation of trainers in the Apprenticeship Class is realized with a dual role: a) as a trainer (adult educator) in the classroom and b) as a supervisor, a mediator between the apprentices and the companies of private or public sector. To successfully fulfil their role, they must develop the following perspectives:

a) As an adult trainer in the Apprenticeship Class:

- ⊙ Excellent knowledge of the subject they teach, to present the thematic material of the course, to organize and coordinate the necessary activities that promote the critical thinking of the apprentices.
- ⊙ To systematically encourage the active participation of learners in the learning process, using the participatory methods of Adult Education.
- ⊙ To cultivate meaningful and effective communication with the apprentices, to develop a relationship of mutual respect, cooperation and dialogue with them and to support them in achieving the goals of the Apprenticeship.

b) As a Supervisor in the Apprenticeship Class:

- ⊙ To supervise the compliance with the terms of the signed contract between the apprentice and employer.
- ⊙ To complete all the necessary forms of the program and the monthly reports from the workplace.

- ⊙ To inform the system database of the Apprenticeship with all the necessary data.

In order to ensure the proper implementation of the Post-Secondary Year - EPAL Apprenticeship Class, the trainers of EPAL involved in it attend a short and flexible 39-hour training program that includes: i) 18-hour classroom training (Apprenticeship framework and Apprenticeship procedures, basic principles of Adult Education, etc.), ii) 21-hour online education training (safety and health at work, entrepreneurship, etc.). A total of 786 trainers were trained in 2018 alone (Cedefop, 2020).

3.1 Professional development of trainers and Apprenticeship programs

The quality and skills of trainers can contribute to ensuring a high-quality provision of Apprenticeship programs (CEDEFOP, 2016). The professional development of trainers is a factor that determines the quality of the work produced. It is a laborious process in which trainers constantly modify their practice and technique according to their experiences and their participation in formal and informal forms of training. Their professional development is directly related to lifelong learning, the need for which is further reinforced by the ongoing changes taking place in education and in the global digital society. These changes, which must be addressed effectively, create new needs in the qualifications of trainers (Korelli & Mouzourides, 2016). That is, the trainers of VET who participate in the Apprenticeship programs, are invited to develop a dual professional identity. To evolve as experts, with the constant updating of their professional knowledge. To evolve as educators, by adopting and enhancing what is needed for contemporary teaching, pedagogical knowledge and techniques as well as acquiring skills in information literacy and developing community-based collaboration communities (Jones, Pittard & McClusky, 2011). The adoption of such a professional development strategy maximizes the potential of trainers in improving learning and cultivating the skills of 21st century learners, which is its ultimate goal (Chu, Reynolds, Notari, Taveres & Lee, 2016).

4. Methodology

This section contains the methodological framework of the research.

4.1 Research questions

The research questions were:

1. What difficulties did the trainers who participated in the Post-Secondary Year-Apprenticeship Class encounter in their educational work?
2. What knowledge and skills do the trainers of the Post-Secondary Year-Apprenticeship Class consider necessary to face the difficulties in their educational work?

4.2 Research Method - Strategy - Research Tool

The qualitative approach was chosen, as it is suitable for the detection, understanding, development and highlighting of a central phenomenon (the difficulties faced by the trainers involved in the Apprenticeship), "*based on the views of the participants in the study*" (Creswell, 2016, pp. 16-17).

The semi-structured interview was used to collect qualitative data because "*it has a specific purpose of obtaining research-related information and focuses the interviewer on content defined by the research objectives with a systematic description, prediction or interpretation*" (Cohen, Manion, & Morrison, 2008). It shows flexibility in the order, layout and modification of the content, also in adding or subtracting questions, depending on the interviewer's perception of what he deems most appropriate with the evolution of the discussion with the respondent (Creswell, 2016; Robson, 2010).

Thematic analysis was applied for the analysis of the qualitative data of the research. It is the method that allows the researcher to access collective concepts and experiences, to focus their attention on the numerous semantic

patterns that are detected in all data under study and are suitable to answer their research questions (Braun & Clarke, 2012).

4.3 Research limitations

The research findings are not generalizable to the general population, as participants are not a representative sample of any group other than themselves (Cohen et al., 2008).

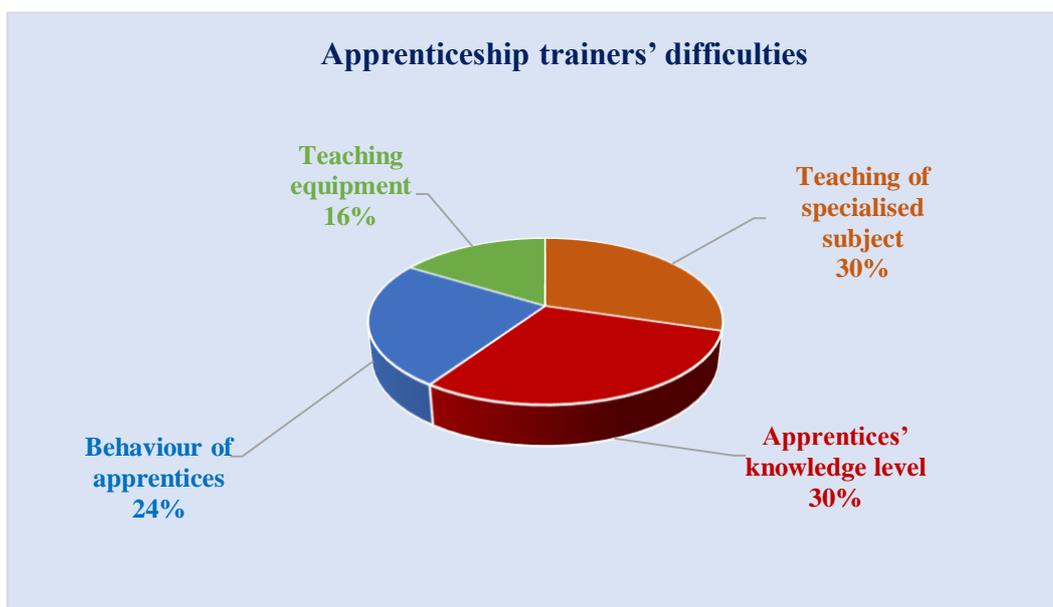
4.4 The sample of the research

The survey was conducted from January to March of the school year 2019-2020. The sample of the research consists of fifteen (15) trainers of four (4) EPAL of Patras of Achaia, who implemented the Post-Secondary Year-Apprenticeship Class of the C phase (2018-2019). The researchers had easy access (Cohen, Manion & Morrison, 2008) to the specific trainers due to their long-term partnership and as they stated, they were "available and willing" (Creswell, 2016, p. 146) to participate in the research process (convenient sampling). Eight (8) of the trainers in the sample were women and seven (7) were men. Most of the trainers in the sample work in VET from 21 to 30 years, three (3) from 16 to 20 years, while one trainer from 11 to 15 and another from 6 to 10 years. All but one worked on the Apprenticeship program for two years. Eight (8) of the interviewed trainers had attended the training program of the Ministry of Education for Apprenticeship, ten (10) knew and applied in their training the principles of Adult Education and finally five (5) had the Certification from the EOPPEP (National Organization for the Certification of Qualifications and Vocational Guidance).

5. Presentation of results

The qualitative analysis of the trainers' answers to the first question showed that the difficulties they encountered in their educational work were related to the teaching of the specialty course for each field, to the attitude of the students in the classroom as well as the means of supervision and teaching space of the school unit. The difficulties are illustrated in the following Graph. 1:

Graph 1: Apprenticeship trainers' difficulties



Most trainers, eleven (11) out of fifteen (15), answered that the difficulties they encountered in teaching the specialty course come mainly from the material provided by the Curriculum. Eight (8) of them argued that the material is voluminous, extensive, very specialized, with the cognitive range of modules covering many areas,

while the time provided is insufficient for its detailed teaching (*Interview 4: "The material was extensive and demanding," Interview 12: "The time to cover the material is short"*). They pointed out that the questions contained in the material have poor and rough wording, while their answers are difficult to identify (*Interview 8: "Poor wording in some questions with difficult answers"*). Three (3) pointed out that the material is structured in sections that do not correspond or are very theoretical about the professional subject of the apprentices' workplace (*Interview 5: "The course of the specialty does not correspond to the reality of the labour market"*).

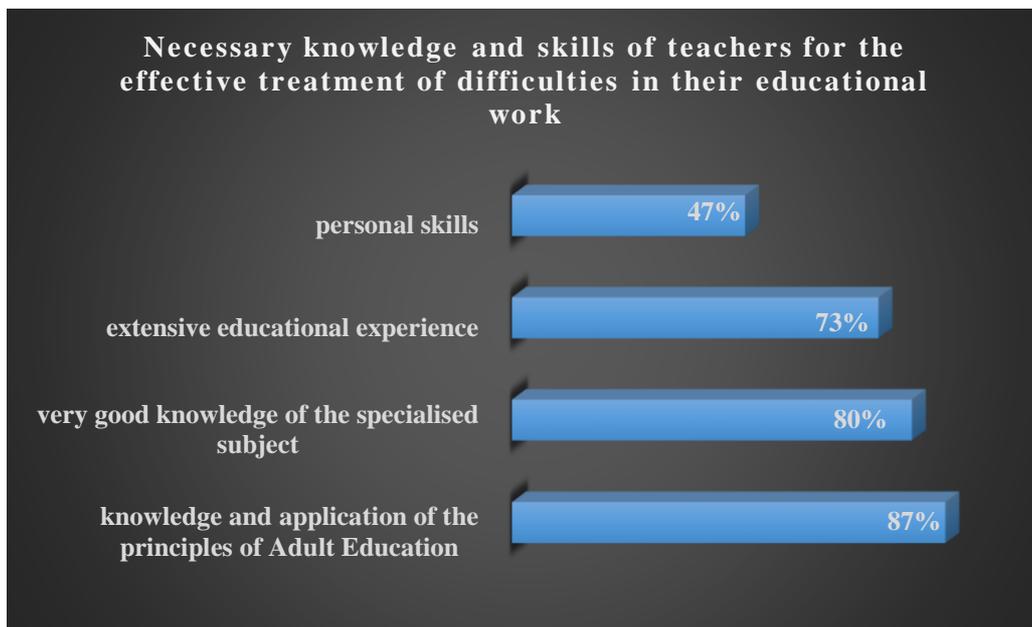
The students' cognitive level, which was low in relation to the high level of knowledge provided by the specialty course, caused intense concern. Apprentices are characterized by many learning gaps that they "carry" from their previous schooling. *"The biggest difficulty I encountered as a trainer in the classroom is the low level of knowledge of the students"* (*Interview 12*), "The level of knowledge provided by the Curriculum is high compared to the level of knowledge of students, who are characterized by many learning gaps, legacy of previous years of study" (*Interview E9*). These two answers summarize the statements of eleven (11) of the fifteen (15) trainers interviewed.

The trainers involved with the Apprenticeship also faced significant problems in relation to the participation and cooperation of the apprentices. The attitude of the apprentices in the classroom made it difficult for the majority, - nine (9) - trainers interviewed. The apprentices, according to the Apprenticeship program, come to the school to attend for one day - for seven (7) hours - the specialty course. They approached the lesson either with a relaxed mood and reluctance, or with fatigue and indifference, or refused to learn and engage in activities or participate actively. The apprentices considered the day they came to the school unit for the specialty course as a peculiar "holiday" of the maximum five days training and work to the employer (*Interview 2: "They participated in the course with difficulty," Interview 11: "Unfortunately, the apprentices did not show particular interest in learning," Interview E13: "They generally had a relaxed mood and immaturity," Interview 15: "They considered the school day to be something like a break from work, they were relaxed and generally reluctant to attend class"*).

Finally, almost half of the trainers in the sample stated that they encountered problems in the implementation of laboratory exercises due to the insufficient available teaching equipment. The non-existent electrical devices, the few and technologically obsolete computers, the lack of a video projector as well as the lack of consumables such as photocopy paper and stationery, impeded the teaching of the course in the way provided by the Curriculum (*Interview 4: "Teaching equipment was scarce and outdated," Interview 8: "There was difficulty in disposing of and using the required consumables such as photocopy paper and stationery," Interview 13: "There was no projector in the class which would help the course"*).

Regarding the second research question, the trainers who participated in the research, mentioned the very good knowledge of the subject of specialization, the principles and techniques of Adult Education, the long educational experience in VET and the personal skills of the trainers themselves, as valuable supplies in dealing with implementation difficulties of the Apprenticeship. These qualities and the necessary skills are shown in Graph. 2:

Graph 2: necessary knowledge and skills of trainers for the effective treatment of difficulties in their educational work



Twelve (12) out of fifteen (15) trainers claimed that their in-depth knowledge of the subject helped them to fulfill their role as Apprenticeship trainers (*Interview 1: "It helped me in my Apprenticeship because I know the subject in depth," Interview 3: "I faced the difficulties with the good knowledge of the subject that I have already acquired"*). Thirteen (13) trainers emphasized that the Apprenticeship trainer should have a very good knowledge of the basic principles of Adult Education, in order to adopt in the classroom, the appropriate techniques and the appropriate tools based on them, since the apprentices are on the verge of adulthood and need different and careful treatment. Besides, four (4) of them stated that they are certified in Adult Education trainers in a corresponding question that was asked to them (*Interview 2: "It is necessary for the Apprenticeship trainer to have additional knowledge in Adult Education in order to know the skills, techniques and the tools and to adjust them appropriately to the learners," Interview E6: "The trainer who participates in the Apprenticeship ... is required to have passed the training in Adult Education in order to be able to meet the requirements of the program, because the apprentices are in a transitional stage of adulthood"*). Most of the trainers also interviewed - eleven (11) - pointed out the educational experience as another tool on which they relied on to effectively overcome the difficulties they encountered (*Interview 1: "It helped me face the difficulties by having a great educational experience," Interview 3: "I faced the difficulties with the teaching experience"*).

More than half of the trainers - seven (7) - said that in order to be able to manage their students, they developed appropriate skills and communication codes. More specifically, they pointed out that the Apprenticeship trainer needs to be social, to cultivate dialogue, constant communication, and substantial cooperation with the apprentices in order to achieve the goals of the program. They stressed out that the participation of the trainer in the program must be accompanied by good mood, passion, and zeal to be effective and efficient. One trainer went further and argued that it would be very helpful if the Apprenticeship trainer had the psychological skills to support the students (*Interview 1: "And of course to have the mood and desire to help the students," Interview E8: "The sociability of the trainer plays a big role ... must have a constant open dialogue with learners, Interview 10: "Even counselling and supportive psychology skills are required", Interview 12: "Communication skills certainly increase the resources to deal with the difficulties that arise"*).

6. Discussion

Regarding the first research question, we notice that the trainers of the sample taken, in their attempt to achieve the objectives of the Apprenticeship program, were faced with difficulties that caused:

- The material of the Apprenticeship specialty course that follows the curriculum is voluminous, extensive and very specialized for its effective teaching and the students face problems in understanding and assimilating the new knowledge in the time available. The opinion of the trainers is very important for the discrepancy between the modules of the material taught in the school unit and the actual practical training in the professional field. The same is pointed out in the studies of Zarifi, Fotopoulos, Zanolis and Manavi (2017), Karatzogianni and Pantazi (2014) and Karoula (2017) as well as in the report of CEDEFOP (2018). In addition, the aforementioned report states that the Apprenticeship specialty courses are not yet systematically harmonized with the needs of the market and are not based either on research needs or on evaluation of the results of the program.
- The participation and attitude of the apprentices in the Apprenticeship makes in many cases the work of the trainers involved difficult. The main difficulties are the low learning ability of the apprentices, as pointed out in the research of the IEP (2018) and the lack of willingness and interest for their active participation in the learning process. This conclusion contradicts the research of the IEP (2018) according to which only 19% of the surveyed trainers considered the aforementioned difficulties as inhibiting factors in their work.
- The insufficient logistical structure is a deterrent key to the implementation of the Apprenticeship, a finding which contradicts with Zarifi et al. (2017) and Papastefanakis (2002), who argue that the available logistical infrastructure is one of the strengths of VET.

In order to effectively manage the aforementioned difficulties, the trainers mobilized:

- Their many years of teaching experience since everyone has been working in VET for over ten years.
- Their cognitive adequacy in the material of the specialty course, since in addition to the knowledge of their basic degree, the long-term teaching of specialty courses in the B and D class of EPAL, whose material of the specialty course of the Apprenticeship is a natural continuation, led to the in-depth cultivation of the required technical knowledge. They feel well prepared for the effective transmission of knowledge to the apprentices, since they themselves have developed their own knowledge, skills and abilities and communicate them with codes adapted to their culture (McCoshan, 2017).
- The utilization and application of the principles and techniques of Adult Education in the classroom. Apprentices are in the transition to adulthood and need careful treatment, while developing a different relationship between trainer and learner (Rogers, 1999). Some trainers have already been certified by EOPPEP, while others have attended the training program of the Ministry of Education for Apprenticeships, which included training in the field of Adult Education. After all, the quality implementation of the Curricula of the Apprenticeship specialties presupposes trainers not only with an appropriate cognitive and technical level but also with updated pedagogical training, able to apply appropriate pedagogical practices in the classroom, in order to stimulate the interest of the students and strengthen their desire for learning (Karatzogiannis & Pantazi, 2014; IEP THE2, 2018).
- The personal skills and abilities they possess. They consider that the most important ones are suitable for adult educators, such as communication, dialogue, sociability, cooperation, motivation, and guidance of learners. The willingness, diligence and dedication showed by the trainers are mentioned by Zarifi et al. (2017) as one of the positive elements of VET. In addition, they state that a good knowledge, not only of the local market, is needed. Many times, the specialty trainers due to their long stay in the classrooms of vocational schools, lose part of their cognitive burden and move away from the real professional space (Adam, 2008). This removal leads them to the inability to monitor the technical and professional developments in their field. Therefore, the quality of teaching and effective participation in Apprenticeship, cannot be guaranteed when trainers are isolated from broader trends and developments in their field (Broek, Pagliarello, Noort, & Vroonhof, 2017).

7. Conclusion

EU Member States face common challenges, such as the globalization of the economy, technological change and the advent of the information society, and common phenomena, such as very high levels of youth unemployment, "formal qualification inflation" and lack of professional skills (European Commission, 2015b). One of the policies adopted to address these problems is the development of VET and the promotion of Apprenticeship programs, which are internationally recognized as valuable learning models for a successful and smooth transition of young people from school to work (Akkerman & Bakker, 2011). These are programs that combine internships in real working conditions with the provision of knowledge in the school unit and aspire to be for students an integrated proposal of preparation for the world of work and an advantage in finding a job. They provide the possibility of a possible alignment of the needs and requirements of the labor market with the skills and abilities of young future employees (Zimmerman, Biavaschi, Eichhorst, Giulietti, Kendzia, Muravyev, Pieters, Rodriguez-Planas, & Schmidl, 2013).

The Greek state in its effort to follow the strategy of "Europe 2020", implements from March 2017 the program "Post-Secondary Year-Apprenticeship Class" in Vocational High Schools. The role of EPAL specialty trainers in the implementation of the Apprenticeship program is crucial and multifaced to ensure the quality of learning and teaching (CEDEFOP, 2016). In order to better support the Apprenticeship trainers in their educational work, it is necessary to adopt actions and initiatives to support and enhance their professional development, which is an investment in the provision of high-quality teaching and the acquisition of updated teaching standards, so that trainers can face key challenges.

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