DOI: 10.17165/TP.2016.1-2.3

# LIODAKI NIKI¹ – THANASSIS KARALIS²

# Motives and Barriers of Adults Learners in Initial Vocational Education in Greece

This paper examines motives and barriers of Adults Learners in Initial Vocational Education in Greece. The research involved 80 participants who attended educational programs at publics I.E.K. in Greece. The data collection was carried out by using the PRB Questionnaire (Participation-Reason-Barriers). The results of this study showed that participants attend education programs/seminars in order to become more efficient in their work, to obtain certificate of attendance and to satisfy their interest in learning. The efficiency at work was introduced as the most significant motive. On the other hand, barriers that prevent participation in a seminar/ program are the cost of participation, the lack of transport to the seminar venue, the lack of information and lack of awareness of seminars held; among these barriers the most important one, is the cost of participation.

#### Introduction

In Greece, a large number of Secondary Education graduates continue their studies through Initial Vocational Education. They often choose to study at Initial Vocational Training Institutions (I.E.K), (a) because of the short duration of the courses offered by these institutions, which lead to the obtainment of a training certificate, (b) the low cost of study, (c) their immediate placement in the workforce upon acquiring such a certificate, and (d) because of their unsuccessful attempt to pass the National Higher Education Entrance Examination. For those who belong to the latter case, the choice of going to I.E.K is an option out of necessity rather than of choice.

The overall situation in Greece, after the outbreak of the economic crisis and the vast reduction of the work force it produced, has led to an oversupply of employees. In order to face such a situation, the participants studying in public I.E.K, in their attempt to gain more skills than those acquired in the courses offered in the above mentioned institutions, participate, also, in other educational programs that will enable them to become more competitive in the labor market. The present article examines the reasons why adult participants take part in seminars as well as the barriers that discourage them from doing so.

\_

<sup>&</sup>lt;sup>1</sup> Phd Candidate, Department of Educational Science and Early Childhood Education. University of Patras, Greece. *liodaki@upatras.gr* 

<sup>&</sup>lt;sup>2</sup> Associate Professor, Department of Educational Science and Early Childhood Education. University of Patras, Greece. *karalis@upatras.gr* 

#### 1. Theoretical Framework

#### 1.1 Initial Vocational Education in Greece

In Greece, the Initial Vocational Education is provided by public I.E.K.<sup>3</sup>, which may function either as privately owned units or as public institutions. Under the Public Law 2009/1992, the aim of public I.E.K. is "to provide participants with all forms of initial or supplementary vocational training, and to ensure that, through the teaching of scientific, technical and professional knowledge they will develop the skills needed to facilitate their vocational integration within society and will secure their adjustment to the changing conditions of the production process" (General Secretariat for Lifelong Learning, 2015). More specific, the main objectives of I.E.K. are the following:(a) provide initial vocational training; (b) to ensure that they are qualified (depending on the chosen specialty) by providing scientific, technical, vocational and practical knowledge; (c) to enable them to develop corresponding to their specialty skills; (d) to facilitate their professional integration in society and (e) to ensure their adaptation to the changing needs of the production process.

The programs run for two academic years and participants have to attend theoretical, practical and combined subjects. The function and management of public I.E.K. come under the General Secretariat for Lifelong Learning and the National Organization for the Certification of Qualifications and Vocational Guidance (E.O.P.P.E.P.) is responsible for the development of the National Qualifications Framework and also for recognizing and certifying these qualifications in accordance to the levels of the National Qualifications Framework. The learners at the public I.E.K are Junior High School graduates who come from Technical and Professional Schools, Senior High School graduates, or any adults who may want to complement, update or upgrade their knowledge, abilities and skills, in specialized disciplines gained from the vocational education system and the initial vocational training, which ensure employment and professional and personal development.

High school graduates have the opportunity of attending training specialties for up to four semesters, while the High School Leaving Certificate holders have the ability to monitor post-high school specialties up to two semesters. Graduates EPAL - EPAS entitled to be selected in corresponding specializations for the 3rd semester of Vocational Training, completing their studies in 2 semesters.

\_

<sup>&</sup>lt;sup>3</sup>The term "Public Initial Vocational Training Institutions" will be used for public I.E.K.

Each year of training is composed of two independent semesters training, winter and spring, each of which has 14 full weeks training. The winter semester starts in October and ends in February, while the spring semester begins in February and ends in June. The training takes place mainly in the afternoon (General Secretariat for Lifelong Learning, 2015).

# 1.2 Motives and Barriers in Participation

"Motivational orientations might be defined as constructs that identify the underlying structure of the diverse reasons that people give for continuing their education" (Darkenwald, 1977, p. 2). Because these forms reflect on the needs and interests of adults, it is imperative to be taken into account while planning and developing an Adult Education program (Boshier, 1976; Darkenwald, 1977). The reasons that guide adult learners to participate or not in education and training programs have been a central issue in research during the past few decades in the field of Adult Education.

In a study of 22 participants, Houle (1961) introduced three types of adult learners. The distinction was made in connection with the reasons for participation: the goal-oriented, the learning-oriented and the activity-oriented ones. The goal-oriented learners see education as the means to achieve the goals they have set. In the second type, the learning-oriented learners, consists of adults who are interested to learn for the sake of learning. In the third type Houle includes those who are not interested in the content or the aim of the program but rather in the social contacts they can make during the program (Gordon 1993; Merriam—Caffarella, 1999). Later on, in 1968, Tough carried out a study similar to Houle's which concluded that the reasons why adults participate in education programs can be varied and not interrelated (Tough, 1968).

Boshier in 1969 used Houle's distinction of the three types of learners upon which he based the Education Participation Scale (EPS) in order to accurately rank the factors that urge adults to attend education programs (Boshier–Collins, 1985). The EPS (Boshier, 1971) in its original form consisted of 14 parameters as it can be seen from the table below *(Table 1)*:

1. Social Welfare	8. Cognitive interest
2. Social Contact	9. Educational compensation
3. Other directed professional advancement	10. Social sharing
4. Intellectual recreation	11. Television abhorrence
5. Inner-directed professional advancement	12. Social improvement and escape
6. Social conformity	13. Interpersonal facilitation
7. Educational preparedness	14. Education Supplementation

Table 1. Factors of participation (Boshier 1971).

The EPS is a valid research tool measuring/ ranking the reasons for participation. It has been used in numerous studies(Miller, 1992; Gordon et al.,1990) either as the only research tool or in combination with other questionnaires. Indicative of its effectiveness is Fujita-Starck's research titled 'The effects of Motivation and Classroom Environment of Non-credit Continuing Education Students' where she combined the EPS with the Adult Classroom Environment Scale (Darkenwald, 1987) and the Dimension of Adult Student Satisfaction (Henry, 1983) questionnaires to present her findings.

Of equally important contribution to this research field that examines the adults' reasons for participation in such programs, were the findings of Morstain–Smart (1974). Their results came from the answers of 648 participants with the use of the EPS and produced the following six categories: 1/ Social Relationships, 2/ External Expectations, 3/ Social Welfare, 4/ Professional Advancement, 5/ Escape Stimulation, 6/ Cognitive Interest. They also, concluded that the reasons for participation were closely related to the learners' demographic profiles such as sex and age. However, for a better understanding of the whole issue in question, it is important, apart from the motives, to also explore the barriers adults have that prevent them from attending education programs of this kind. An analysis of the barriers is most of the times hard to carry out, due to the difficulty to reach non-participants and hence explore the reasons which lead them to abstain from participation in courses of Initial Vocational Education. Still, as in the case of the motives, several studies have been conducted in various contexts for the better understanding of such barriers.

The most popular and widely acknowledged typology is the one introduced by Cross (1981) according to which barriers are grouped into three categories: the situational, the dispositional and the institutional. The situational barriers involve the living conditions an individual has at a certain point in time. An example of this might be that of an unemployed

person having a chance to attend a seminar. The cost of the seminar, however, since he/she is unemployed, would be a serious barrier. The dispositional barriers refer to a person's perceptions and beliefs, on how one sees oneself as a trainee. For example, a person may believe that he/she is too old to enter an educational course. The third category refers to the institutional barriers. These barriers do not derive from the individual but rather from the organizational constraints of the institutions carrying out programs; such an organizational constraint would be an inconvenient seminar timetable. Although nowadays it is achievable to overcome some of the institutional barriers, mainly with the organization of distance learning programs that correspond to the basic principles of adult education (Karalis–Koutsonikos, 2005; Vorvilas–Karalis–Ravanis, 2011), still the barriers of this category seem to be very serious especially for on-the-job training programs (Karalis, 2010).

Darkenwald and Merriam (1982 as cited in McDonald Cason, 2003, p.15) argued in favor of four categories of barriers instead of Cross's three categories; the situational, the institutional, the psychological and the informational. Their ranking of the psychological barriers is the same as Cross's dispositional ones whereas the informational barriers are grouped as a separate set. In Cross's (1981) typology, the informational and the institutional barriers come under the same category. From the three categories, situational barriers are more significant than institutional barriers and the hardest to overcome seems to be the dispositional barriers (Desjardins–Rubenson, 2013; Rubenson–Desjardins, 2009, p. 191) as it is not easy to transform adult participants' perspectives.

## 2. Methodology

#### 2.1 Purpose and Research questions

The purpose of the study was to examine the reasons of participation and the barriers that faced adult learners in Initial Vocational Education in Greece. The research questions were the following:

- 1) Which are the three more referring reasons that motivate an adult learner to participate in initial vocational education programs and which of them is the most important.
- 2) Which are the three most important barriers that faced an adult learner in his/her wish to participate in lifelong learning in initial vocational education programs and which of them is the most important.

#### 2.2 Participants

The study involved 80 participants who studied at I.E.K. in Greece. The participants attended the follow programs: "Administration and Finance" (n=20), "Education- preschool teachers" (n=23), Nursing (n=17), "Conservation of works of arts and antiquities" (n=20). The profile of this target group is as follows: the highest percentage (62.5%) of the participants were between the ages of 18-20, while the lowest (1.3%) were 36-40, and the most of them were female (n=48) in contrast to male participants (n=32). The majority of them lived in rural areas (56.3%), a smaller number in urban areas (27.5%) while 16.3% lived in non-urban areas. In regards to their previous education level, 56.3% had a Senior High School (Unified Lyceum) diploma, 35% a Technical High School (EPAL) diploma, 5% had finished a Professional High School (EPAS) and only 2.5% of the participants had a University degree while 1.3% had a Technical Vocational School (TEE) diploma.

As far their family income is concerned, most participants (60%) said that they belonged to families who barely managed to meet their needs while 32.5% of them needed to cut back on spending and restrict themselves to absolute necessities so as to afford participating in I.E.Ks programs. Only 6% of them came from families that could live comfortably and save up money, while a few of them (1.3%) claimed that their families could not only afford the necessities but also needed extra money to meet their basic needs.

#### 2.3 Data Collection

The present research was conducted in 2015 in two I.E.K located in the prefecture of Crete and Western Greece, Patras. All the participants had primarily informed for the scope of the research and the data collection was carried out by the researchers using hard copies of the questionnaire due to the fact that many of the participants were not familiar with the informatics. Especially, the participants were asked to filled in the PRB Questionnaire (Participation-Reason-Barriers), developed by Karalis (2013, p. 215), appropriately modified for research in Initial Vocational Training. In its original form the PRB questionnaire investigates the reasons for participation (the motives and barriers of adults participating in Lifelong Learning). Its design is based on the international literature covering the reasons adults attend or abstained from lifelong learning programs. It has been used in two studies in Greece so far; the first was conducted in 2011 by the research institute of the Trade Union Confederation and the second in 2013 on behalf of the Confederation of Professionals, Craftsmen and Merchants.

The present questionnaire consists of four parts. The first part focuses on the demographic profile of the participants such as age, educational level, place of residence and family income. The second part looks into the motives for participation in seminars other than these compulsory for the completion of their studies in public I.E.K, whereas the third part outlines the barriers that inhibit adults' attendance of such non-obligatory seminars. In the parts of the questionnaire that focus on the reasons for participation or non-participation in seminars, the participants are first asked to choose three reasons for each case and subsequently to point out which they consider as the most important ones. According to previous research for participation there is more than one factor that affects the learners' decision to participation in an educational program. Thus, the researchers considered appropriate to examine the three most important motives and barriers and then the most important one, in order to ascertain the extent that each one of them is appeared and the impact it has on the decision for participation.

### 3. Presentation of findings

As already mentioned, after having chosen three of the motives that could encourage learners to take part in education programs or seminars, beyond the seminars provided at the public I.E.K where they study, participants were then asked to choice the motive they believe as the most important.

The analysis of the results showed the following three motives that affect adult participants: their professional development/advancement, the acquisition of a certificate of attendance, and their interest in learning. In particular, 82.5% of the participants said that they would attend a seminar in order to become more efficient in their work, At this point it must be noted - in order to clarify the above mentioned motive that even though the participants of this study were students at the public I.E.K. and most of them were in the age range of 18–20, still, they needed to work, and did in fact work, in order to meet their needs.

The 66.3% thought chose the acquisition of a certificate of attendance. An explanation why this reason gathered the second highest motive, could be that the for participants who are just starting their professional career is very important to obtain the typical qualifications in order to build their curriculum vitae, while 40% included the "interest in learning" as one of their three motives. Also, 25% of the participants believed that they would improve their place in the labor market by finding a better job, whereas 21.3% of them emphasized the

significance of attending an educational program for their subsequent recruitment in a business.

A percentage of 18.8% of the participants claimed that "I could not go to University and learn all I want" and the 17.5% argued that the knowledge and skills the I.E.K. provided them with, were not sufficient for them to act as professionals. A 15.0% found that educational programs/seminars would contribute to their personality integration. Furthermore, 12.5% chose to attend a seminar in order to make the best of their leisure time. The lowest rates were found in the motives referring to the development of a social network (8.8%), and lastly to the financial rewards/benefits (6.3%)and lastly, to the concepts of lifelong learning such as "I believe education should last throughout life" (3.8%). The results can be seen in *Table 2*.

Motives	%
1. To be more efficient in my work	
2. To attain a certificate / certificate of attendance	66.3%
3. Because I like learning new things	40.0%
4. To get a better job	25.0%
5. Because I think seminar certificates are necessary to get hired	21.3%
6. Because I could not go to University and learn all I wanted	18.8%
7. Because the I.E.K. does not provide me with enough knowledge/ skills to	17.5%
help me when I get a job	
8. To form an integrated personality	15.0%
9. To make the best of my leisure time	12.5%
10. To meet new people and widen my contact/social network	8.8%
11. Because I think that if I have many seminar certificates, I will be better	6.3%
paid when I get a job	
12. I believe education should last throughout life	3.8%

**Table 2. Reasons for participation (three choices)** 

Professional development/ advancement appeared to be the most significant reason for participation. In two studies the motive "to be more efficient in my work" got the highest rates; specifically, it got 45% in the present study, and 24,3% in Karalis' (2013) study respectively. The motive with the second highest rate (16.3%), concerned the obtaining of a certificate, in contrast to Karalis' study in which job retention came second. The interest in learning was the third most important reason in both studies. Furthermore, 5% chose the

motive "I could not go to University and learn all I wanted". The reasons that referred both to the significance of attending an education program as the means to get a job and to the concepts of lifelong learning were chosen by 3.8% of the participants. The reasons referring to the possible financial gains and the best use of leisure time received only 2.5% rate. Lastly, the development of a social network and the advancement in the market place were the motives with the lowest rates (1.3%). The results can be seen in the *Table 3*.

Motives	%
1. To be more efficient in my work	45%
2. To attain a certificate / certificate of attendance	16.3%
3. Because I like learning new things	16.1%
4. Because I could not go to University and learn all I wanted	5%
5. Because I believe education should last throughout our lifespan	3.8%
6. Because I think seminar certificates are necessary to get hired	3.8%
7. To make the best of my leisure time	2.5%
8.Because I think that if I have many seminar certificates, I will be better paid	
when I get a job	2.5%
9. Because the I.E.K. does not provide me with enough knowledge/ skills to	
help me when I get a job	2.5%
10. To get a better job	1.3%
11. To meet new people and widen my contact/social network	1.3%
12. To form an integrated personality	0.0%

Table 3. The most important reason for participation (one choice)

Having examined the motives that drive adult learners to participate in lifelong educational programs, we may turn our interest on the issue of barriers. The findings in regards to the barriers (as it can be seen in table 4), indicated that the cost of participation was the number one reason the respondents gave for not attending a program (51.3%). Most participants (60%) – as it seems from the demographic data – belonged to families who barely managed to meet their needs, thus they can't afford the cost of a seminar/educational program. The next two barriers referred to transportation problems one had to face in order to get to a seminar venue (38.8%). The third barrier appeared to be the lack of information/ lack of awareness

about a seminar (32.5%). The lack of Internet skills is a very important inhibiting factor affecting the information about the seminars/educational programs.

Quite high in the ranking were the reasons referring to time. In particular, "the lack of time due to job responsibilities" reached 31% while "the lack of time because of other occupations" got 26.3%. However, the lack of time due to childcare or other family obligations barrier got the lowest rate (13.8%).

The participants found the inconvenience of the days and times of a program, a relatively important barrier, and that was why they rated it with 20%. Another 10% thought the lack of a certificate of attendance was a barrier to their participation. A percentage of 6.3% of the participants did not attend an education program/seminar due to their health problems, while another 5% pointed out the "selection process" as a barrier, claiming that they did not think they would be chosen. The barriers that follow received 3.8% rate according to this research: "attending a seminar plays no role in the advancement of my working place", "the quality and the structure of the seminars are not at the desired level", "seminars last long", "I have learnt enough so far", "The I.E.K. provides me with sufficient knowledge".

The lowest rates corresponded to reasons such as: "Negative response from friends and family", and "I do not like attending seminars, they remind me of school". None of the participants chose the reasons that refer to qualifications; therefore, the statements: "I do not have the educational / academic qualifications for attendance", "I am too old to learn" and "I can learn the same things in ways other than going to a seminar" had no impact on this group.. The above was a rather predictable result because in the motives category, the participants placed in the third position with 40% rate, their perception that education should last throughout life.

Barriers	%
1. Cost of participation in seminars.	51.3%
2. Lack of transport to the seminar venue	38.8%
3. Lack of information and lack of awareness of the seminars held	32.5%
4. Lack of time because of job responsibilities	31.0%
5. Lack of time because of other occupations.	26.3%
6. The seminars take place on days and times I cannot attend.	20.0%
7. Lack of time due to childcare or other family obligations	13.8%
8. A certificate of attendance is not provided	10.0%
9. I have health problems	6.3%
10. The selection process, I do not think I have the chances to be	5.0%
chosen	
11. I have learnt enough so far	3.8%
12. The I.E.K. provides me with sufficient knowledge	3.8%
13. The quality and the structure of the seminars are not at the	3.8%
desired level	
14. Seminars last long	3.8%
15. Attending seminars plays no role in the advancement of my	3.8%
working place	
16. I do not like attending seminars, they remind me of school	1.3%
17. Negative response from friends and family	1.3%
18. I do not have the educational/ academic qualifications for	0.0%
attendance	
19. I do not have the skill requirements for attendance	0.0%
20. It is not considered a special asset in my workplace	0.0%
21. I am 'too old' to learn	0.0%
22. I can learn the same things in ways other than going to a seminar	0.0%

Table 4. Reasons for non-participation (three choices)

As it is shown in *Table 5*, the 28% of the participants indicated that the cost of participation in education programs/seminars, was the most significant barrier to their attending. The same finding came up in Karalis' research (2013) with 46.9% of the respondents sharing the same view. The second barrier with the highest rate (22%) was the lack of information and the lack

of awareness in regards to the education programs/seminars that were being held. The lack of transport to the seminar venue was the barrier that stood in the third place with 13.8% rate. The high percentage of this barrier is easy to explain since 56.3% of the participants of this study, lived in rural areas.

The reasons for non-participation concerning the lack of time because of job responsibilities or other occupations got 8.8% and 7.5% respectively, while 6.3% was attributed to the inconvenient timetable of the programs/seminars. Low percentages received the barriers referring to the acquisition of a certificate of attendance (3.8%), to health problems participants faced (2.5%), to the lack of time because of childcare and other family responsibilities and lastly, to the participants' concept of their reduced chances to be chosen for a seminar (1.3%).

The following barriers that were not chosen by any of the participants: 'the negative response from friends and family, I do not have the educational/ academic qualifications for attendance, I do not have the skill requirements for attendance, I have learnt enough so far, I am 'too old' to learn, I can learn the same things in ways other than going to a seminar, The I.E.K. provides me with sufficient knowledge, It is not considered a special asset in my workplace.

Barriers	%
1. Cost of participation in seminars.	28%
2. Lack of information and lack of awareness of the seminars held	22.%
3.Lack of transport to the seminar venue	13.8%
4. Lack of time because of job responsibilities	8.8%
5. Lack of time because of other occupations	7.5%
6. The seminars take place on days and times I cannot attend.	6.3%
7. A certificate of attendance is not provided	3.8%
8. I have health problems	2.5%
9. The selection process, I do not think I have the chances to be	1.3%
chosen	
10. The quality and the structure of the seminars are not at the	1.3%
desired level	
11. Seminars last long	1.3%
12. Lack of time due to childcare or other family obligations	1.3%

Barriers	%
13. I have learnt enough so far	
14. The I.E.K. provides me with sufficient knowledge	
15. Attending seminars plays no role in the advancement of my	0,0%
working place	
16. I do not like attending seminars, they remind me of school	0,0%
17. Negative response from friends and family.	0,0%
18. I do not have the educational/ academic qualifications for	0,0%
attendance.	
19. I do not have the skill requirements for attendance	0,0%
20. It is not considered a special asset in my workplace	0,0%
21. I am 'too old' to learn	0,0%
22. I can learn the same things in ways other than going to a seminar	0,0%

**Table 5. Reason of non-participation (one choice)** 

#### 4. Conclusions

In Greece, the participation rate in 2003 in non-formal education did not exceed 2.6% (males 2,6% - 2,7% women), while in 2004 and 2005 decreased by 1.8% and 1.9% respectively. In 2008 there was a slight increase reaching 2,9% (males 2,8% and females 3,1%) whereas in 2009, the participation rate was 3,3% (males 3,2% and 3,3%). In 2010, it was 3% (males 3,2% and females 3,3%) and remained at the same level in 2012 (2.9%) (European Commission, 2013; Eurostat, 2010, 2011, 2012). As it follows from the above, the rates of adult participation in Greece are not only below average, but also one of the lower in the European Community.

The national strategy adopted by Greece in 2011 for lifelong learning, aimed at providing more and better learning opportunities for adults (European Commission, 2013) and to strengthen the role of trainers in order to be able to create learning environments that will meet the needs of learners, which is directly linked to the motives and interests of learners (Boshier, 1976). Despite the efforts made but the lack of funding from the state and the lack of a comprehensive and coherent strategy are the two main obstacles to the implementation of programs relating to non-formal education.

The results of this study showed that participants attend education programs/seminars in order to become more efficient in their work, to obtain certificate of attendance and to satisfy

their interest in learning. The efficiency at work was introduced as the most significant motive. Its significance could be attributed to an internal need of the participants to be as efficacious professionals as they can, or to an external need, such as to be up to their employer's expectations.

Furthermore, the oversupply of employees on offer in the labor market, in present day in Greece, necessitates, according to this research, the advancement of the qualifications of the participants, for their easier recruitment in the business world. Such advancement, the participants believe, will also make them more competent and competitive towards their colleagues. For these reasons, it is easy to understand why obtaining a certificate of attendance came second in the motive, in the findings of this study.

The reason for participation in a seminar/ program relating to the 'interest in learning' is closely connected to the reasons that participants choose to continue their studies in the Initial Vocational Education. This is an area worth of further research, since it can provide us with some interesting findings.

On the other hand, the barriers that prevent participation in a seminar/ program are the cost of participation, the lack of transport to the seminar venue, the lack of information and lack of awareness of seminars held; among these barriers the most important one is the cost of participation. Based on Cross' typology, we can conclude from the study findings that the respondents appear to face mainly situational barriers and, in some cases, institutional barriers.

At this point, we consider serious to highlight the fact that the majority of the education programs in Greece take place in urban areas and therefore, it is less likely for adults living in rural areas to attend. The cost of the seminars also needs to be examined in relation to the lack of transport to the seminar venues. That is because adult learners, who live closely to these venues, will choose to attend as they will only have to pay for the seminar fees whereas those living far away, will be extra charged with the transportation and residential expenses.

#### REFERENCES

Boshier, R. (1971). *Motivational Orientations of Adult Education participants:* A factor analytic exploration of Houle's Typology. *Adult Education Journal*, vol. XXI, no.2, pp. 3–26. doi: 10.1177/074171367102100201

Boshier, R. (1976). Factor Analysts at Large: A critical Review of the Motivational Orientation Literature. *Adult Education Quarterly*, vol. 27, no. 1, pp. 24–47. doi: 10.1177/074171367602700103

- Boshier, R. Collins, J. (1985). The Houle Typology after twenty two years: A Large- Scale Empirical Test. *Adult Education Quarterly*, vol. 35, no 3, pp. 113–130. doi: 10.1177/0001848185035003001
- Cross, P. (1981). Adults as Learners. San Francisco: Jossey-Bass
- Darkenwald, G. (1977). Why Adults Participate in Education: Some Implications for Program Development of Research on Motivational Orientations. Speech presented to the faculty of the University of Extension Division (Rutgers University, January 26, ED 135992.
- Desjardins, R. Rubenson, K. (2013). Participation Patterns in Adult Education: the role of institutions and public policy frameworks in resolving coordination problems. *European Journal of Education*, vol.48, no. 2 ,pp. 262–280. doi: 10.1111/ejed.12029
- European Union (2010). Europe in Figures, Eurostat year book 2010 [online]. http://ec.europa.eu/eurostat/documents/3217494/5721265/KS-CD-10-220-EN.PDF/e47b231c-c411-4d4e-8cd6-e0257be4f2e6?version=1.0[10 December 2015]
- European Union (2011). Europe in Figures, Eurostat year book 2011 [online] http://ec.europa.eu/eurostat/documents/3217494/5729317/KS-CD-11-001-EN.PDF/2b62ee78-6f91-4341-9098-1f815ff42536?version=1.0[10 December 2015]
- European Union (2012). *Europe in Figures, Eurostat year book 2012* [online]. http://ec.europa.eu/eurostat/documents/3217494/5760825/KS-CD-12-001-EN.PDF[10 December 2015]
- European Commission (2013). Commission Staff Working Document. Education and Training Monitor 2013, Vol 2: Country analysis Part 3 of 7: Finland, France, Germany, Greece SWD (2013) 434 final Brussels [online] http://edz.bib.uni-mannheim.de/edz/pdf/swd/2013/swd-2013-0434-4-en.pdf[10 December 2015]
- Fujita- Starck, P. (1994). The effects of Motivation and Classroom Environment on the Satisfaction of Noncredit Continuing Education Students. Paper presented at the 34<sup>th</sup> Annual Forum of the Association for Institutional Research: New Orleans, LA.
- General Secretariat for Lifelong Learning (2015). *Initial Vocational Education*: Vocational Training Institution (I.E.K.) [online] http://www.gsae.edu.gr/el/epaggelmatiki-katartisi/i-e-k-institoyta-epaggelmatikis-katartisis/mathe-gia-ta-institoyta-epaggelmatikis-katartisis [21 October 2015]
- Gordon et al (1990). Assessment of the Motivational Orientations of Vocational, Technical and Adult Education Graduates in Off-Campus Credit Programs. Report Research/Technical (143), Marshall University. Eric Documentation: ED 348488.

- Gordon, H. (1993). *Houle's typology. Time for Reconsideration*. Paper presented at the American Vocational Association Convention. Nashville, TN. Eric Documentation: 363785.
- Houle, C. O. (1961). The Inquiring Mind. Madison: University of Wisconsin Press.
- Karalis, T. (2013). *Motives and barriers of adults' participation in lifelong education programs*. Athens: Confederation of Professionals, Craftsmen and Merchants and Confederation of Employees.
- Karalis, T. (2010). Situated and transformative learning: exploring the potential of critical reflection to enhance organizational knowledge. *Development and Learning in Organizations: An International Journal*, vol. 24, Iss. 1, pp. 17–20. doi: 10.1108/14777281011010479
- Karalis, T. Koutsonikos, G. (2005). Issues and Challenges in Organizing Web-based Courses for Adults, *Themes in Education*, vol. 4, no. 2, pp. 177–188.
- McDonald Cason, Julie (2003). Barriers to participation in educational programs as perceived by first-time enrolling freshmen in higher education. Phd thesis. Louisiana State University and Agricultural and Mechanical College.
- Merriam S. Caffarella, R. (1999). *Learning in Adulthood. A comprehensive Guide* (2nd edition). San Francisco: Jossey Bass.
- Miller, B. (1992). Participant Motivation in Off-Campus Agricultural Credit Programs. *Journal of Agricultural Education*, vol. 33, no. 2, pp. 2–9. doi: 10.5032/jae.1992.02002
- Morstain, B. Smart, J. (1974). Reasons for participation in adult education courses: A multivariate analysis of group difference. *Adult Education*, vol. 24, no 2, pp. 83–98. doi: 10.1177/074171367402400201
- Public Law 2009/1992. National System of Vocational Education and Training.
- Rubenson, K. Desjardins, R. (2009). The Impact of Welfare State Regimes on Barriers to Participation in Adult Education. A Bounded Agency Model. *Adult Education Quarterly*, vol. 59, no 3, pp. 187–207. doi: 10.1177/0741713609331548
- Tough, A. (1968). Why Adults Learn: a Study of the Major Reasons for Beginning and Continuing Learning Project. Toronto Ontario: Institute for Studies in Education.
- Vorvilas, G., Karalis, T., Ravanis, K. (2011). Designing Learning Objects: A Genre-Based Approach. *Journal of Baltic Science Education*, vol. 10, no. 2, pp. 114–126.