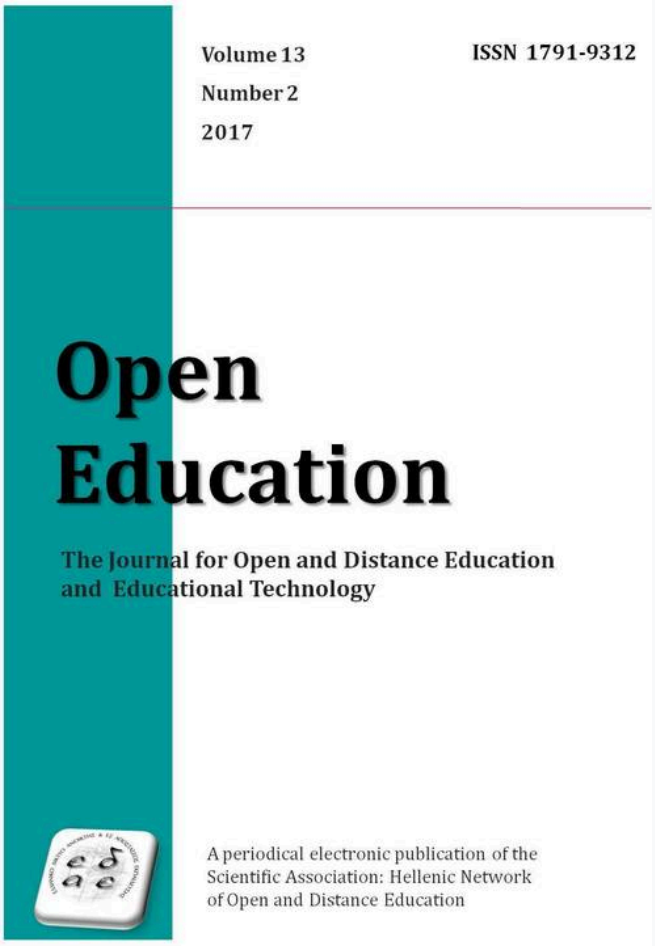
Ανοικτή Εκπαίδευση: το περιοδικό για την Ανοικτή και εξ Αποστάσεως Εκπαίδευση και την Εκπαιδευτική Τεχνολογία

Τόμ. 13, Αρ. 2 (2017)



ECONOMIC EFFICIENCY OF LIFELONG LEARNING: The SCS in Greece and their exploitation.

Ιωάννα Χρήστος Τσάρπα

doi: 10.12681/jode.13806

Economic Efficiency of Lifelong Learning: The SCS in Greece and their exploitation

Ioanna Tsarpa
University of the Aegean
School of Humanities
tsarpa@aegean.gr

Abstract
The economic efficiency of lifelong learning is studied in the present paper, in order to be estimated if the concerned educational structures are "efficient" or not. It is discussed the concept of investment in education, while this investment and its efficiency is tested. Special education relations and economic efficiency for the student will be taken into account in establishing the framework of empirical research. Specifically, the effect of the investment in education, initially through the theory of human capital is investigated. Moreover, it is demonstrated that the personal, educational and professional development of the individual leads to more effective achievement of objectives, better organization and management of working groups, personal schedules and increased efficiency and competitiveness. Furthermore, for the calculation of the investment in education is needed to study the efficiency of investment in education. Moreover, a key-tool for the study and analysis of cost efficiency is the method of cost – benefit, that presupposes the estimated benefits and costs of investing in education. Finally, it is emphasized that the calculation of the efficiency of the training takes place in a marginal basis with the help of methods of consideration: the full method, the short method and the income function.

Keywords
Lifelong learning, second chance schools, Greek education, economic efficiency

Introduction
The Second Chance Schools (SCS) are a relatively new institution in Greece (2000), which has been studied and analyzed little, but is of particular interest for research. Additionally, it is propounded and promoted by the European Union in the context of Lifelong learning (LLL). In this project, the candidate collected data of these schools to contribute to the strengthening of the institution. For the realization of this investigation a series of actions have been implemented, which afterwards were analyzed. Moreover, for the investigation of the above mentioned subject, six-dimensional research was developed and presented below.

Literature Review
Investment on LLL
The contribution of investment in human capital has created new standards in economic thought (Bowman 1966). Special analysis for the investment importance of education was made by Becker and Schultz, who distinguish education in general and special. The *general education* is the standard school education, while *special education* refers to the specialization of the individual, while it is concentrated mainly

on the context of occupational employment. Today there is an increase in investment in LLL sector, particularly in education and training. The most positive results from the training of citizens increase investment in lifelong learning and training (OECD 2003; Ravens 1998).

Investment in human capital, particularly in formal education, has been studied in the past and has shown very encouraging results, especially in the productivity of the economy, which is examined hereby (Psacharopoulos & Patrinos 2002). On the other hand, the investment in LLL, due to the fact that the research that have been carried out in this area are minimal, is particularly difficult to draw conclusions regarding the benefits that they are managing (Jenkins et al. 2002).

Therefore it is identified that there is lack of the data required and there are difficulties observed concerning the calculation of performance. Existing surveys include data referring mainly to training and less on education (Blundell et al. 1999; Kanellopoulos 2005). In order to better organize data on investment in LLL and training the cost of the education/training needs to be studied and calculated.

Thus, the cost is separated into *direct* and *indirect*. Direct costs are the payment of school fees, transport costs and various expenses related to the educational process, eg books, stationery etc. Indirect cost is the loss of time to take a training instead of the use of time in another object *eg* work–pay. That is the time lost because of trainees studying instead of working (Sohnesen & Blom 2005).

Investment of individual on LLL

The perspective of microeconomics considers that, each person of a society, that invests capital in an education, expects to bring about a positive result. That is why the individual rationally invest in order to acquire more education, which will help him increase the income of his subsequent professional/working course (Fokiali 2010).

Specifically, the cost of training of a person is identified as (Akpotu 2008):

- Direct private costs of education which contains the cost of individuals in schools, books, etc.
- Indirect private costs when income lost by the individual for his years of study, with the assumption that these years is studying and not working with the qualifications of the previous educational level and further that as a student is not working (Brewer & McEwan 2009).

Direct private costs include various costs such as purchase of stationery, school fees, purchase of books, accommodation and subsistence costs. Indirect private cost is the opportunity cost of the learner, or otherwise lost earnings. The cost depends on factors such as the amount of wages that are shaped in the labor market, the level of unemployment, but also the skills of the trainee (Hani 2012).

The private cost refers to the part of the costs (or investment) performed either by parents or students or by both (Kumar 2004). This means that the financing costs incurred by students or their parents in over a year for the acquisition of education, are called the private costs of education, and can be classified into two categories: the academic costs and maintenance costs (Agboola & Adeyemi 2012). The academic cost refers to costs, objects and people in school fees or teachers, tuition fees, library usage charges, payments to books, stationery etc. On the other hand, maintenance costs include costs for clothing, transport, boarding and accommodation and miscellaneous expenses (Kumar 2004).

The investment in education on the part of the individual, respect sacrifices both economic and time. The financial sacrifices include expenses directly incurred for education, such as tuition fees for tuition, purchase of educational materials etc, while

the sacrifices in terms of time concerning the loss of income, *ie* income which would obtain if worked instead of studying. Certainly, the choice of a person for extra education is directly related to the expected receipt of higher income because of additional education (Fokiali 2010).

In Greece the private costs of education, according to a survey conducted by the Educational Policy Development Centre - General confederation of Greek Workers (and which is conducted on an annual basis), based on data drawn from Greek Statistical Authority, has costed for 2013 € 5,247,405,437.48 €. From these resources the 1,027,068,450.95 € were spent on schooling services (tuition) of all types (private, public, subsidized) and 859,289,493.68 € were spent on schooling services (fees) in foreign languages. The costs of the formal support of students at all educational levels are greater than the previous and amounted to 1,054,122,615.07 € for 2013. 42,802,305.26 € regard household expenditure on educational excursions. Also, financial resources amounting up to 438,553,959.78 € were spent on general purchases in education and 1,428,804,220.01 € were financial transfers for studies in other households. Finally there is also an amount of expenses of 396,764,392.72 €, which cannot be classified (KANEP-GSEE 2014).

Investment of society on LLL

The immediate social cost refers to the expenditure on the part of the state and society for education. Much of this cost refers to the remuneration of teaching staff, and in some degree, concerns the costs of maintenance of the buildings, to purchase technical equipment, and general operating costs. The indirect social costs are the social opportunity cost, or whatever it is called, the alternative cost. This cost includes the resources which are committed to training and could be available for the provision of another good (Hani 2012).

The social cost of education is cost which the community, especially through the tax burden gives, in order to finance the provided education services (Brewer & McEwan 2009). The social cost is directly related to efficiency, both in private and in social terms, since the individual efficiency of investment in human capital, especially for investments in higher education, is higher than the corresponding social efficiency because of the subsidy of study by social spending (Agboola & Adeyemi 2012).

The social cost of education includes both the *institutional* cost of education and the *private* cost of education, which we described above. The institutional cost of education regards state expenditure on education, which are not directly recovered from pupils and students of all educational levels. The institutional cost of education is further divided into recurrent and non-recurrent costs, which alternatively is also known as variable and fixed costs or as current and capital expenses (Saruparia & Lodha 2013).

Economic efficiency of investment on LLL

The concept of efficiency in investment, particularly in education, is the indicator in which profit maximization can be calculated for the investor. Efficiency refers to the resulting cash balance, *ie* the relationship between benefits and capital used for investment. Therefore, efficiency is the difference between benefit and cost, expressed in monetary terms (Dimakos 2004).

In economics of education the "efficiency" is crucial, which is associated with the cost - benefit analysis, as resources are not unlimited. Thus, the use is required in the best possible way in order to maximize the results of investment in education. Moreover, the concept of efficiency is divided into *internal*, when referring to the same educational sector and in *exterior* when the educational sector is also linked to other economic sectors (Dimakos 2004; Papageorgiou & Chatzidima 2003).

The calculation and measurement of the cost of education is the subject of the broader field of economic education, which provides important methodological tools to measure the efficiency of investment, social and private. The efficiency is a direct indicator, relative to alternative social, investment decisions in order to achieve a more efficient allocation in every case of scarce resources (Brewer & McEwan 2009) (Brewer & McEwan 2009; Karatzia-Staulioti & Labropoulos 2006).

The efficiency is generally the relationship between the financial result and capital employed. Efficiency is the difference between the benefit and the cost expressed not in terms of physical quantities but in monetary terms (Postlethwaite & Husen 1994). This concept is a key element in the cost-benefit analysis, as well as more generally in the economy, so in education, the limited resources must be located or used in such a way so to maximize the effect (Levin et al. 1976).

A commonly discrimination used in the economics of education is *private* and *social* efficiency. Private profitability takes into account the costs, which made by an individual or a household, while social efficiency includes, besides of the amounts invested by individuals, the amounts that the state has too (Brewer & McEwan 2009).

The measurement and calculation of efficiency in education is an important factor in decision making for two very important reasons. First, like any human activity, and hence social activity, characterized by economic logic, applies the relationship between the results and the limited resources, where the relation is shown in the case of education (Cornali 2012). So economists are entitled to ask questions about the effective usage of resources.

Given that the first way is probably not feasible, and the second should not for social reasons to be acceptable, the profitability therefore becomes vital. If we focus on more efficient usage of current and future resources (financial and human), educational systems can provide more and better opportunities for personal and social improvement (Windham 1988). Indeed, as the cost is increased while the budget narrows for education, there is a growing need to find resources which should be used more effectively in order to maintain both the quality and innovation (Coco & Lagravinese 2012).

The above analysis shows that, in principal, efficiency is a concept related to any social activity that is targeted for the implementation of which uses finite resources. In this context, the universities meet these basic requirements (Agasisti 2014).

Economic efficiency of investment on LLL for individual

According to the classical economic model, the remuneration is linked to productivity and efficiency of the worker, since there is dependence of individual performance on human capital *ie* the knowledge, skills and experience. It is found that the more educated and/or experienced one is the higher income he wants, who often gains, compared to the less educated or the inexperienced.

On the other hand, the employer understands and is willing to pay a higher fee in the most educated and/or experienced workers for the following reasons:

- The more educated and/or skilled worker knows that the human capital has a positive effect on productivity and profitability and thus claim higher pay.
- The employer knows that the more educated and/or experienced is more productive and efficient than the less educated and/or inexperienced worker. So he prefers a worker with more skills and are willing to allocate more pay, while waiting to bring greater efficiency to work (Fokiali 2010).

Economic efficiency of investment on LLL for society

According to the theory of human capital, society invests in knowledge in order to increase productivity and efficiency. The income of a society, are considered to be

higher when society has higher levels of education compared with a society that has lower incomes and correspondingly lower levels of education. The above relationship is explained by the fact that productivity and efficiency of the educated society are higher. Thus, the total "investment of society in education" is efficient and brings GNP growth and general economic development of society (Fokiali 2010).
Each country knows that the social human capital, *ie* the set of knowledge, skills and experience available to the society convert it to a more productive and efficient one. Therefore, investment in education is ensured by providing free education and setting compulsory education for all its citizens.
Investing in education means of course financial cost and burden on the state. Indeed, the state investing on education reduces the amount of investments in other areas, as it considers that the performance that will bring the state is associated with higher incomes and therefore a higher growth rate. All these sacrifices of society are the social investment in human capital.
Moreover, it is worth mentioning that the efficiency of society by investing in education is related to the average income per capita of a society with high levels of education and lower education level. The difference between the two amounts is the efficiency of society by investing in education (Fokiali 2010).

Methodology

The research was conducted through questionnaires supplementation. The administration of questionnaires and the arrangement of the process are described below. The questionnaires were given to the participants in the SCS of Greece. The collection of necessary information held in the period February to June 2015. The questionnaires were sent personally via courier by the researcher. They were granted personally to each student, who wished to complete it, after consultation with the director of each school unit having first approval and authorization by the Youth and Lifelong Learning Foundation.
The postage of the questionnaires was done after phone calls and in consultation with the directors to conduct and achieve its objective of research. Questionnaires were sent to all learners in SCS and managers, while the sample of graduates was convenient with the help of Panhellenic Union of Students and Graduates of Second Chance Schools.
The main advantage of the questionnaire, for which it was selected as a methodological tool, is that it can be distributed to a large number of participants at the same time and in different geographical regions (Singh 2007). Further advantages of the questionnaire are that it has a low cost, it is relatively easy to get coded and analyzed and therefore results processing and production (Singh 2007). The questionnaire used in this research is well-structured. This means that respondents are asked to answer the same answers in the same order. The structured questionnaire ensures a higher degree of reliability, because if different questions were posed, it would be very difficult to codify responses and get reliable data analysis (Clark-Carter 2004).

Results and Discussion

Funding of SCS

Table 1 shows the total budget of SCS for the period 2008-2015. Certainly the amount the funds pledged to date (24/05/2015) concerning the money that is available for SCS. It is noted that funding meet the requirements of the SCS and the corresponding paid covered economic needs. The remaining amount has not been given mainly to

payments of non-permanent teachers to be held at the end of the first half of 2015, *ie* end of June 2015.

Table 1: total budget, funding and realized amount of SCS for the period 2008-2015

total budget of SCS 2008-2015 (since 10/9/2008)	35,452,957.4 €
funding	22,523,200
(realized amount) total payments recorded in the computer system of payments (24/5/2015).	19,440,127

Table 2 shows the budget by region for the axes 7, 8, 9 for the period 2008-2015. It is observed that the amount of the budget is very satisfactory for particularly high demands and needs of SCS. Moreover, the equal sharing of money depends on the number of SCS in each region of the shaft 7, 8, 9. The table also shows the realized amount and funding of the axes 7, 8 and 9 for the period 2008-2015. It is observed that the amount to date (24/05/2015) has been given to the needs and operation of SCS meets the particularly high demands of SCS.

Table 2: budget by region, realized amount for the axes 7, 8, 9 for the period 2008-2013

Axes 7, 8, 9	budget by region 2008-2015	realized amount 2008-2015	Funding 2008-2015
Axis 7	20,461,175.4 €	11,393,867	13,157,200
Axis 8	11,276,287	5,763,417.8	6,440,000
Axis 9	3,715,495	2,282,841.4	2,926,000
Total budget	**35,452,957.4**	**19.440.127**	**22,523,200**

Table 3 shows cost per region per year for the period 2008-2015. It is easy to understand the big difference in the South Aegean cost in proportion to the Eastern Macedonia and Thrace, and Attica, mainly due to the smaller number of SCS in relation to the other two regions. More specifically, it is observed that in each region and respectively in each SCS, cost is about the same, with no great variation. As for Thrace region, in the case of Rodopi that has almost most classes of SCS in Greece, it appears proportional to the county cost (Komotini Sapes). As for Attica region, in the case of Peristeri where is the first SCS which functioned in Greece, appears approximately the same cost rates with other SCS.As for South Aegean region, in the case of Rhodes because of its insularity and its frontier, the cost per SCS is relatively higher than in Syros, where insularity true but is relatively close to mainland Greece

Table 3: cost per region per year for the period 2008-2015.

SCS	cost 2008-2015 **(1)**	Cost per region per year **(2) = (1)/ 7** (7 years for 2008-2015)
Eastern Macedonia, Thrace	2,467,449.46 €	352,492.77 €
Attica	2,290,821.52	327,260.22
South Aegean	536,912.67	76,701.81
Total	**5,295,183.65**	**756,454.8**

The subsequent development of learners

According to research conducted by the Youth and Lifelong Learning Foundation (2012) for the subsequent development of trainees it has been observed that older

graduates are unemployed, many, especially men, are employed in the private sector full time. Less frequently it occurs that trainees are employed on the work of the house, working in the private sector part-time, in the public sector and as freelancers. Very less it seems to be working in the public sector as contractors, continuing their studies at other educational levels or finally very few are pensioners and soldiers.

Calculation of private and social efficiency

In order to calculate the efficiency it is needed to calculate the salary increase received by a graduate of the SCS. The calculation will be made for those working in private and public employment. As reported, the calculation of profitability can be done by a shortcut method. Specifically, according to Psacharopoulos & Kazamias 1985, the following formulas may be applied:

Table 4: Payment for civil servants (Law 4024/2011) **Source:** http://didefth.gr

years of employment	High School Graduates	Graduates with 1 year Technological schools	Technical School Graduates	University Graduates		years of employment	High School Graduates	Graduates with 1 year Technological schools	Technical School Graduates	University Graduates
Level 6						Level 3				
1	780	858	1037	1092		1	1135	1248	1509	1589
2	780	858	1037	1092		2	1135	1248	1509	1589
Level 5						3	1157	1273	1539	1620
1	858	944	1141	1201		4	1157	1273	1539	1620
2	858	944	1141	1201		5	1181	1299	1570	1653
3	875	963	1164	1225		6	1181	1299	1570	1653
4	875	963	1164	1225		7	1204	1325	1601	1686
5	893	982				8	1204	1325	1601	1686
6	893	982				9	1228	1351		
7	911					10	1228	1351		
8	911					11	1253			
9	929					Level 2				
10	929					1		1498	1810	1906
Level 4						2		1498	1810	1906
1	987	1085	1312	1381		3		1498	1810	1906
2	987	1085	1312	1381		4		1528	1846	1944
3	1006	1107	1338	1409		5		1528	1846	1944
4	1006	1107	1338	1409		6		1528	1846	1944
5	1027	1129	1365	1437		7		1528	1883	1983
6	1027	1129	1365	1437		8		1528	1883	1983
7	1047	1152				9		1528	1883	1983
8	1047	1152				Level 1				
9	1068					1			1991	2097
10	1068					2			1991	2097
11	1089					3			1991	2097
12	1089					4			2030	2139
						5			2030	2139

For private efficiency: $r_i = \frac{\overline{Y_i} - \overline{Y_{i-1}}}{S_i\ (\overline{Y_i} + C_i^{I\Delta})}$

For social efficiency: $r_i = \frac{\overline{Y_i} - \overline{Y_{i-1}}}{S_i\ (\overline{Y_i} + C_i^{K})}$

where *i* is the educational level of a, b, c/primary, secondary, tertiary education (Dimakos 2004; Psacharopoulos 1999).

- For private efficiency applies: $r_i = \frac{\overline{Y_i} - \overline{Y_{i-1}}}{S_i\ (\overline{Y_i} + C_i^{I\Delta})}$

So for the SCS it will be: $r = \frac{\overline{Y_\Gamma} - \overline{Y_\Delta}}{2\ (\overline{Y_\Delta} + C_\Delta^{I\Delta})}$

where:
Y = monthly income
S = 2 years of study in SCS
C = private education costs.
If the private schooling in SCS cost is almost zero, according to the statements of SCS learners we will have monthly:

$$r = \frac{\overline{Y_\Gamma} - \overline{Y_\Delta}}{2\,(\overline{Y_\Delta} + C_\Delta^{I\Delta})} = \frac{858-780}{2\cdot(780+0)} = \frac{78}{2\cdot 780} = 0.05 \Rightarrow 5\%$$

Therefore, if the same data apply annually the annual private profitability without private schooling in SCS costs on behalf of the trainees, shall be 5%.

If the private schooling in SCS cost is not almost zero, according to the statements of SCS learners, then adding a direct annual private cost, we have monthly:

$$r = \frac{\overline{Y_\Gamma} - \overline{Y_\Delta}}{2\,(\overline{Y_\Delta} + C_\Delta^{I\Delta})} = \frac{858-780}{2\cdot(780+100)} = \frac{78}{2\cdot 880} = 0.0443 \Rightarrow 4.43\%$$

Therefore, if the same data apply annually then the annual private efficiency, with private schooling in SCS cost on behalf of the trainees, amounts to 4.43%.

- For private efficiency applies: $r_i = \frac{\overline{Y_\iota} - \overline{Y_{\iota-1}}}{S_i\,(\overline{Y_\iota} + C_i^K)}$

Where for SCS it is: $r = \frac{\overline{Y_\Gamma} - \overline{\Delta}}{S\,(\overline{Y_\iota} + C_i^K)}$

where:

Y = monthly income

S = 2 years of study in SCS

C = social education costs.

If the monthly social cost of providing a place in SCS is 1,037.83 €, according to the Youth and Lifelong Learning Foundation, then the social cost per month

$$r = \frac{\overline{Y_\Gamma} - \overline{Y_\Delta}}{2\,(\overline{Y_\Delta} + C_\Delta^{I\Delta})} = \frac{858-780}{2\cdot(780+1{,}037.83)} = \frac{78}{2\cdot 1{,}817.83} = 0.0214 \Rightarrow 2.14\%$$

Therefore, if the same data apply annually then the annual social efficiency, with participation of the state cost of attendance for learners in SBS amounts to 2.14%.

Where *r* is interpreted as the extra income, as a percentage, with respect to the amount of investment in SCS education.

Conclusion and Future Trends

The SCS aim to develop learners that consider the long development process. Specifically, they use means like the end of compulsory education, they bring together the trainees with knowledge and training, and they help them acquire new/improved knowledge, attitudes, and capabilities, while they contribute to the development of their self-esteem. Through these processes, the trainees have the opportunity to grow personally and socially, while their chances of finding a job are improved. Among the educational objectives set out in the operation of the SCS and the organization of their activities, the student participation in determining the content of the training received, knowledge acquisition and improvement of skills/capabilities, the development of critical thinking and shaping attitudes about personal matters, professionally, socially and politically are included.

Institutional objective of Greek SCS is to be the link to the work market. In this context there is a training program called “Advisory Guidance”, in which the students have contact with the work market. This is accomplished indirectly by teaching creation techniques and analysis of professional profiles, employment and self-awareness. While, direct contact is obtained through acquaintance with "market people", visiting the educational structure at a scheduled time, information for European programs and subsidized or innovative actions. The cooperation and contact with the work market systematically sought from those responsible, despite the fact that domestic SCS are more oriented to education and to, a lesser extent, in training. At the same time, schools seek contact with local authorities, through which also the premises are available, accommodating the educational structure. Finally, the relationship with the local community is a theme of principle cooperation, as the

community is the market, which is addressed to the school and seeks trainees. Secondly, there is a relationship of support, encouragement and development activities as well as representatives of institutions and services visiting the school for making speeches, meetings and various information events.

From the foregoing analysis the below key findings are provided. The first is that the monitoring of SCS can contribute to economic (Bezanson 2003; Jackson 2003; Rausch 2004; Schuetze 2006; Okumoto 2008; Love 2011) professional (Bezanson 2003; Jackson 2003; Rausch 2004; Schuetze 2006; Okumoto 2008; Love 2011), personal (Miller & Mullins 2002; Jackson 2003; Rausch 2004; Tuschling & Engemann 2006; Varbanova 2011) and educational (Tsamadias & Hani 2011; Hani 2012; O'Carroll et al. 2006; Mitra 2011) development. From the side of the participants in these programs, they improve their health (Chowdhury & Bhuiya 1995; WHO 2015), as well as their social and community development (Schweinhart 2007; Groot & van den Brink 2010; Machin et al. 2011; Boeren et al. 2012; D'Agostino et al. 2013; Verduijn & Essers 2013).

The second main conclusion from this research is that the economic development resulting from the attendance from those programs at the SCS may not ultimately have a positive impact, which also has be mentioned by several researchers. This is mainly through education and the theory of human capital due to the economic downturn which may prevail in a society. In particular, Greece is currently characterized by high unemployment rates, difficulty of finding a job and low financial rewards. Consequently, the economic benefits of monitoring the SCS might not apply if the economy and the work market of a country is in crisis.

Nevertheless, it was found that there has been an increase of learners in SCS in the biennium 2014-2015 and especially in SCS of Rhodes. This point out the importance considered attending the SCS for the individuals. Therefore, the SCS should further be promoted through various marketing activities, through traditional publicity and promotional ways, such as radio, television, posters and brochures (Hudson 2008), through the use of new technologies such as social media and online advertising (Trusov et al. 2009; Serrat 2009; Cao et al. 2009; Chen et al. 2011; Acker et al. 2011; Zhang 2011), but also through personal recommendation, which, as it was found, is one of the strongest media of SCS (Egan 2007; Hudson 2008).

Acknowledgements

I would like to thank those who helped me in completing my project which are the Institute for Youth and Lifelong Learning, as well as the working Team of Second Chance Schools, which operates under Institute for Youth and Lifelong Learning. I would also like to show my gratitude to the directors of Second Chance Schools throughout Greece and the learners from school year 2014-2015 in these Schools. These people were the sample of my research, who willingly agreed to fill out the questionnaires distributed to them and facilitated the collection of survey data. Finally I would like to thank, the Panhellenic Union Foitounton and Alumni Second Chance Schools, who has helped me with the distribution and collection of questionnaires to graduates.

References

Acker, O. et al., 2011. Social CRM: How companies can link into the social web of consumers. *Journal of Direct, Data and Digital Marketing Practice*, 13(1), pp.3–10.

Agasisti, T., 2014. The Efficiency of Public Spending on Education: An empirical comparison of EU

countries. *European Journal of Education*, 49(4), pp.551–489.
Agboola, B. & Adeyemi, J., 2012. Analysis of Private Cost of Education in a Selected Nigerian University. *Journal of Research in National Development*, 10(3), pp.281–292.
Akpotu, N.E., 2008. Social Cost Analysis of Secondary Education in South West. *Journal of Social Science*, 16(1), pp.27–33.
Bezanson, L., 2003. Connecting Career Development and Lifelong Learning: A Background Paper on The Contribution of Career Development to a Productive Learning and Working Force. Available at: http://www.iaevg.org/crc/files/communication_strategy_no.4_bezanson694_2.pdf [Accessed September 14, 2016].
Blundell, R. et al., 1999. Human Capital Investment: The Returns from Education and Training to the Individual, the Firm and the Economy. *Fiscal Studies*, 20(1), pp.1–23.
Boeren, E., Nicaise, I. & Baert, H., 2012. Adult learners' satisfaction and its relation to characteristics of the individual and the educational institution. *Pedagogies: An International Journal*, 7(2), pp.132–149.
Bowman, M.J., 1966. The Human Investment Revolution in Economic Thought. *Sociology of Education*, 39(2), pp.111–137.
Brewer, D.J. & McEwan, P.J., 2009. *Economics of Education*, Oxford, UK: Elsevier.
Cao, J. et al., 2009. Word of Mouth Marketing through Online Social Networks. *AMCIS 2009 Proceedings. Paper 291*.
Chen, Y., Fay, S. & Wang, Q., 2011. The Role of Marketing in Social Media: How Online Consumer Reviews Evolve. *Journal of Interactive Marketing*, 25(2), pp.85–94.
Chowdhury, M. & Bhuiya, A., 1995. *Effects Of Socioeconomic Development On Health Status And Human Well-Being: Determining Impact And Exploring Pathways Of Change, Proposals For Phase II of the BRAC-ICDDR,B Matlab Joint Project 1996 - 2000 AD*, Dhaka.
Clark-Carter, D., 2004. *Quantitative Psychological Research*, New York: Psychology Press.
Coco, G. & Lagravinese, R., 2012. *Incentive Effects on Efficiency in Education Systems' Performance*, ECINE - Society for the Study of Economic inequality WP 2012-270. Available at: http://www.ecineq.org/milano/WP/ECINEQ2012-270.pdf [Accessed September 14, 2016].
Cornali, F., 2012. Effectiveness and Efficiency of Educational Measures: Evaluation Practices, Indicators and Rhetoric. *Sociology Mind*, 2(3), pp.255–260.
D'Agostino, E., Sironi, E. & Sobbrio, G., 2013. The role of education in determining the attitudes towards crime in Europe. *Applied Economics Letters*, 20(8), pp.724–727.
Dimakos, G.M., 2004. *Economics of Education*, Athens: EKPA.
Egan, J., 2007. *Marketing communications*, London: Thomson Learning.
Fokiali, P., 2010. *Dimensions of socioeconomic development in education*, Athens: Pedio.
Groot, W. & van den Brink, H.M., 2010. The effects of education on crime. *Applied Economics*, 42(3), pp.279–289.
Hani, S.H., 2012. *Assessment and Evaluation of Efficiency Investments in Post- Secondary Professional Education and Training in Greece*. Πανεπιστήμιο Πειραιώς.
Hudson, S., 2008. *Tourism and hospitality marketing : a global perspective*, London: SAGE.
Jackson, S., 2003. Lifelong Earning: working-class women and lifelong learning. *Gender and Education*, 15(4), pp.365–376.
Jenkins, A. et al., 2002. *Determinants and Effects of Lifelong Learning*, London: Centre for the Economics of Education.
Kanellopoulos, K.N., 2005. *Economic dimensions of adult training*, Athens: KEPE.
KANEP-GSEE, 2014. Public and Private Expenditure on Education in Environmental Crisis. *Centre Development of Education Policy General Confederation of Greek Workers*. Available at: http://www.kanep-gsee.gr/sitefiles/files/KANEP_DAP_EKPAID_2013.pdf [Accessed September 15, 2016].
Karatzia-Staulioti, H. & Labropoulos, H., 2006. *Effectiveness Evaluation and Quality in Education* G. Dardanos & C. Dardanos, eds., Athens: Gutenberg.
Kumar, A.N., 2004. Private Cost of Medical and Paramedical education in Kerala. In Nair K.N. & Gopimathan N. *Higher Education in Kerala*. Delhi: Daanish Book.
Levin, H., Jamison, D. & Radner, R., 1976. Concept of Economic Efficiency and Educational Production. In *Education as an Industry*. pp. 149–198.
Love, D., 2011. Lifelong Learning: Characteristics, Skills, and Activities for a Business College Curriculum. *Journal of Education for Business*, 86(3), pp.155–162.
Machin, S., Marie, O. & Vujić, S., 2011. The Crime Reducing Effect of Education. *The Economic Journal*, 121, pp.463–484.

Miller, C.E. & Mullins, B.K., 2002. Lifelong learning to reduce domestic violence. *International Journal of Lifelong Education*, 21(5), pp.474–484.

Mitra, D., 2011. Pennsylvania ' s Best Investment : The Social and Economic Benefits of Public Education. Available at: http://www.elc-pa.org/wp-content/uploads/2011/06/BestInvestment_Full_Report_6.27.11.pdf [Accessed September 15, 2016].

O'Carroll, C., Harmon, C. & Farrell, L., 2006. *Economic and social impact of higher education*, Irish Universities Association.

OECD, 2003. *Beyond Rhetoric: Adult Learning Policies and Practices*, Paris.

Okumoto, K., 2008. Lifelong learning in England and Japan: three translations. *Compare: A Journal of Comparative and International Education*, 38(2), pp.173–188.

Papageorgiou, P.P. & Chatzidima, S., 2003. *Introduction to Economic of Human Resources and Learning*, Athens: Stamoulis.

Postlethwaite, T.N. & Husen, T., 1994. *The International Encyclopedia of Education, 2nd Edition (12 Volume Set)* 2nd ed., Pergamon Press.

Psacharopoulos, C. & Kazamias, A., 1985. *Education and Development in Greece: Social and economic study of higher education*, Athens: E.K.K.E.

Psacharopoulos, G., 1999. *Economic of Education*, Athens: Papazisis. Available at: http://www.protoporia.gr/oikonomiki-tis-ekpaideysis-p-72199.html.

Psacharopoulos, G. & Patrinos, H.A., 2002. *Returns to Investment in Education A Further Update*, Washington, World Bank Policy Research Working Paper 2881, September.

Rausch, A., 2004. Lifelong learning in rural Japan: relevance, focus and sustainability for the hobbyist, the resident, the careerist and the activist as lifelong learner. *Japan Forum*, 16(3), pp.473–493.

Ravens, J., 1998. Adult Learning in the Knowledge Society: Shift from Financing Learning Inputs to Recognizing Learning Outputs. In M. Singh, ed. *The Economics and Financing of Adult Learning, Institute for Education*. Hamburg: Unesco.

Saruparia, C. & Lodha, S.L., 2013. Private and Social Cost of Technical and Professional Education With reference to J.N.V. University, Jodhpur (Rajasthan) India. *Developing Country Studies*, 3(3), pp.175–185.

Schuetze, H.G., 2006. International concepts and agendas of Lifelong Learning. *Compare: A Journal of Comparative and International Education*, 36(3), pp.289–306.

Schweinhart, L.J., 2007. Crime Prevention by the High/Scope Perry Preschool Program. *Victims & Offenders: An International Journal of Evidence-based Research, Policy, and Practice*, 2(2), pp.141–160.

Serrat, O., 2009. Social network analysis. *Asian Development Bank*. Available at: https://www.adb.org/sites/default/files/publication/27633/social-network-analysis.pdf [Accessed September 14, 2016].

Singh, K., 2007. *Quantitative Social Research Methods*, London: SAGE Publications.

Sohnesen, T.P. & Blom, A., 2005. *Is Formal Lifelong Learning a Profitable Investment for All of Life?*, World Bank Policy Research Working Paper 3800, December.

Trusov, M., Bucklin, R.E. & Pauwels, K., 2009. Effects of Word-of-Mouth Versus Traditional Marketing: Findings from an Internet Social Networking Site. *Journal of Marketing*, 73(5), pp.90–102.

Tsamadias, C. & Hani, S., 2011. *Overview of empirical studies Assessment of Efficiency of Investment Education in Greece*, Honorary Volume II: University of Piraeus.

Tuschling, A. & Engemann, C., 2006. From Education to Lifelong Learning: The emerging regime of learning in the European Union. *Educational Philosophy and Theory*, 38(4), pp.451–469.

Varbanova, L.D., 2011. Cultural participation in education and lifelong learning: a catalyst for personal advancement, community development, social change and economic growth.

Verduijn, K. & Essers, C., 2013. Questioning dominant entrepreneurship assumptions : the case of female ethnic minority entrepreneurs. *Entrepreneurship and regional development : An international journal*, 25(7/8), pp.612–630.

WHO, 2015. Health and development. *WHO*. Available at: http://www.who.int/hdp/en/ [Accessed September 17, 2016].

Windham, D.M., 1988. *Improving The Efficiency Of Educational Systems, Indicators Of Educational Effectiveness And Efficiency*. The Florida State University & University of New York at Albany.

Zhang, Z. (Justin), 2011. Customer knowledge management and the strategies of social software. *Business Process Management Journal*, 17(1), pp.82–106.