

**Journal of Regional & Socio-Economic Issues**  
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# **JOURNAL OF REGIONAL SOCIO- ECONOMIC ISSUES (JRSEI)**

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# JOURNAL OF REGIONAL SOCIO-ECONOMIC ISSUES (JRSEI)

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**Aims of the Journal:** Journal of Regional Socio-Economic Issues (JRSEI) is an international multidisciplinary refereed journal the purpose of which is to present papers manuscripts linked to all aspects of regional socio-economic and business and related issues. The views expressed in this journal are the personal views of the authors and do not necessarily reflect the views of JRSEI journal. The journal invites contributions from both academic and industry scholars. Electronic submissions are highly encouraged (mail to: [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)).

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## Editorial Note

Current socio-economic developments have renewed the interest for the role of regional development and spatial planning, underlining the interactions with socio-economic sustainability, technological change and socio-economic growth worldwide. The reason is that these new developments lead to increase productivity of factors of production, contributing in the long-term improvement of competitiveness, innovation and entrepreneurial spirit. Moreover, as currently, international financial markets are facing a serious sovereign debt crisis, as economic growth seems to stall in the face of budget tightening and uncertainty being abundant.

Socio-economic sustainability, through competitiveness and growth enhancement, upgrading the production infrastructure and organization through capital equipment, state-of-the-art knowledge, and human capital investment, combined with innovative and technology-based production processes are among the most important issues of today's socio-economic analysis. The key elements for the sustainable development policy concern the efficient use of resources, encouraging the development of new productive technologies, extending the use of productivity and efficiency enhancement schemes and encouraging both innovative and productive activities. Within this framework, socio-economic development increasingly relies on information and knowledge, and creates value through their ability to manage these valuable assets.

A new generation of policies have to overcome the limitations and failures of past experiences, such as collusive practices between political and economic power, heavy bureaucracy, lack of accountability and obstacles of entrepreneurship. They have to be creative and selective, with decision-making mechanisms that are more democratic and inclusive of different social interests, pulling out of the current crisis. The politics behind such a new departure has to be based on a wide social consensus over the distribution of the productivity and efficiency gains deriving from new technologies and socio-economic activities.

This Special Issue of the Journal of Regional Socio-Economic Issues, based on the International Conference on "Social Studies, Regional Development and Spatial Planning: European and International Dimensions & Perspectives", 13-14 July, 2019, Naxos, Greece, summarizes the debate for the future and prospects of socio-economic and regional development of the European Union, under the fields of European, Economic-Geography, Sociology, Regional Development and Spatial Planning. This Special Issue of the Journal of Regional Socio-Economic Issues identifies and examines relevant key research issues, building a conceptual framework drawing on the application of socio-economic development, regional development and spatial planning in obtaining measures of growth and development, enabling a comparative analysis, both in European and international level, explaining also any related socio-economic consequences. Moreover, this Special Issue of the Journal of Regional Socio-Economic Issues explores and studies various dimensions of the interaction between regional development and spatial planning, along with links to socio-economic development. The important task is to relate social consequences to a number of factors that are likely to be determinants, and measure the extent to which they affect economy and society. This Special

Issue of the Journal of Regional Socio-Economic Issues considers both an economic and social perspective to increase the information base and derive broader conclusions about the social consequences of the economic crisis, with this issue being of particular research relevance because evidence shows that even though economic crisis has been widely analyzed with respect to economic consequences, yet little attention has been paid to the evaluation of social consequences.

More specifically, this Special Issue of the Journal of Regional Socio-Economic Issues covers the following sections:

**Section 1: ‘Socio-Economic Sustainable Growth and Regional Development: Policies and Practices for Sustainable Growth’** aims to shed light on issues such as convergence and catch up and examines the major issues describing main Policies and Practices for Sustainable Growth, such as SMEs and Local Development, the investment in Human Capital, and its role in acquisition and absorption of new technology, skills and management, as well as the Performance of Manufacturing Firms estimation. Moreover, this section also focuses on the institutional aspects of Policies and Practices for Sustainable Growth, examining the effectiveness of the adoption of European Union policies with respect to innovation and entrepreneurship on the SMEs performance and their pace of recovery from the economic crisis, as well as development Strategies from the Institutional Perspective.

**Section 2: ‘Sustainable Communities: Social Development and Education’** focuses on education system planning, especially on measuring Efficiency in Education, School Bullying as a Social Construction, Intercultural interactions in compulsory education, as well as the Educational Policy Ideology and Discipline. In particular, the estimates raise the possibility of improving the relative situation of the less efficient regions by means of policies. In any event, the relevance of spatial effects observed suggests that policy-makers should not consider the various regions as isolated units when designing any public intervention in this context.

The findings of this conference aim to be of value for researchers, policy makers and academic community. For policy makers, the value stems for a better identification and understanding of the key elements and consequences of the current economic crisis. This will allow government entities to formulate and implement programs, which will leverage areas of social policy, which require further attainment. Finally, at policy level, the findings of this conference suggest the need to establish assistance programs to develop social policies and programs, at all levels, along with the limitations and suggestions for further research.

To conclude, the Editors would like to thank all the participants of the International Conference ‘Social Studies, Regional Development and Spatial Planning: European and International Dimensions & Perspectives’, who have contributed with their academic and research works, providing a platform for scientific dialogue, leading to knowledge creation and dissemination. The Editors would also like to thank all the Conference Committees for their enthusiastic, careful and punctual work and contribution. Offering, once more, our thanks and gratitude to all the contributors, we strongly wish that this Special Issue of the Journal of Regional Socio-Economic Issues will act as a platform for further theoretical and empirical research, rendering a creative source for scientific dialogue and knowledge diffusion.

The Editors,

Prof. Dr. George M. Korres, Prof. George O. Tsobanoglou,  
Ass. Prof. Dr. Efstratios Papanis, Assoc. Prof. Dr. Aikaterini Kokkinou  
Prof. Dr. Maria Michalidis and Assoc. Prof. Dr. Charalambos Louca

## A Theoretical Approach of Foreign Direct Investment (FDI) and Economic Growth

### **Abstract:**

Globalisation has become a fashionable concept in the social sciences. It is widely asserted that we live in an era in which the greater part of social life is determined by global processes, in which national cultures, national economies, and national borders are dissolving. The world economy has internationalised in its basic dynamics. In the period 1945-1975, the dominant factor driving the world economy was growth in international trade. Since 1980s, international short-term financial-flows have expanded rapidly. International short-term financial-flows have some impact upon economic growth, since they affect the exchange rate and the interest rate. Usually, MNCs (Multinational Corporations) are responsible for FDI (Foreign Direct Investment). This paper attempts to overview and to investigate the international mechanisms that impact on the structure and growth in the real economy, namely, trade, FDIs (Foreign Direct Investment) and MNCs (Multinational Corporations) and also to examine and measure the effects on socio-economic growth.

**Key-words:** FDI, trade, globalisation, inequality convergence, growth.

**Charalambos Louca<sup>1</sup>**

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<sup>1</sup> Associate Professor Dr. Charalambos Louca, American College, Nicosia, Cyprus. Email: [charalambos.louca@ac.ac.cy](mailto:charalambos.louca@ac.ac.cy)

## 1. Introduction

Economists have often suggested that investment yield technological advances which in turn foster productivity growth. Many studies (Denison 1962, Abaramovitz 1986, Fagerberg 1987) have suggested that the postwar acceleration of productivity growth was due to mainly the pace of investment on new technologies and on technical progress. However, productivity growth in most OECD countries started to decline in the second half of the 1960s. There is no single cause for the decline of productivity.

The main objectives of this paper is to examine the role of foreign direct investment and the implications on economic growth and social development. In particular, it attempts to overview the theories related to investment theory, productivity, and socio-economic growth.

## 2. Defining the Foreign Direct Investment and Productivity

There is a huge literature and there are many definitions we can use for investment and productivity. Moreover, following the IMF definition, we can say that:

- Direct investment refers to investment that is made to acquire a stake in an enterprise operating in an economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprise. The foreign entity or group of associate entities that makes the investment is termed the direct investor. The unincorporated or incorporated enterprise (a branch or subsidiary, respectively) in which a direct investment is made is referred to as a direct investment enterprise.

According to the OECD definition:

- A foreign direct investor is an individual an incorporated or unincorporated public or private enterprise, a government, a group of related individuals, or a group of related incorporated and/or unincorporated enterprises which has a direct investment enterprise (that is a subsidiary, associated enterprise or branch operating in a country other than the country(ies) of residence of the direct investors).
- Also, *Direct Investment Enterprises* defined as incorporated or unincorporated enterprises in which a single foreign investor either controls ten per-cent or more of the ordinary shares or voting power of an incorporated enterprise (or the equivalent of an unincorporated enterprise) or has an effective voice in the management of the enterprise.

Moreover, the OECD definition states that:

- Direct investment flows are defined to include for subsidiary and associated companies: the direct investor's share of the company's reinvested earnings plus the direct investor's net purchases of the company's share and loans plus the net increase in trade and other short-term credits given by the direct investor to the company. For branches this includes the increase in unremitted profits plus the net increase in funds received from the direct investor.
- Finally, loans on short-term balances from fellow subsidiaries and branches to foreign direct investment enterprises, loans by subsidiaries to their direct investors and loans guaranteed by direct investors and defaulted as well as the value of goods leased by direct investors should be included in direct investment, with an exception only for the bank, deposits, bills and short term loans which should be excluded from direct investments.

Finally, the United Nations definition states that:

*Foreign direct investment, net flows* Net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital and short-term capital.

According to economic theory investment usually takes place as a capital stock. The relationship between investment and the capital stock depends on which measure of capital we use. It is important to distinguish between changes in the value of stocks that are the result of

inflation (stock appreciation) and the physical change in stocks, for it is only the latter that constitute investment in stocks or stockbuildings.

So we can define:

- Gross capital stock which includes the value (at replacement stock) of all capital goods that have not been scrapped. Gross capital stock is estimated using the formula:  $GK(t) = GK(t-1) + GI(t) - S(t)$ , where  $GK(t)$  is the gross capital stock at the end of period  $t$ ,  $GI(t)$  is gross investment period  $t$ , and  $S(t)$  is scrapping in period  $t$ . Net capital stock includes the value of all capital goods net of depreciation. A machine that is part of the capital stock is valued at a smaller and smaller price as it depreciates. It is calculated according to the formula:  $NK(t) = NK(t-1) + GI(t) - D(t)$ , where  $NK$  denotes net capital stock and  $D$  denotes depreciation. If we are interested in finance, then the net capital stock, which measures the value of the capital stock, is the right one. If on the other hand, we are interested in productive capacity, then the gross capital stock is more appropriate. Net investment (gross investment minus depreciation) is the change in the net capital stock. The change in the gross capital stock is gross investment minus scrapping.

We can also follow the main definitions of productivity, using the economic theory, in accordance which:

- The simplest and the most frequent used measure of productivity is the output per head. However, it is important to develop a better measure for productivity due for example that firms may be using more capital-intensive methods or resources may be being used more efficiency. The way economists most often attempt to disentangle the effects of productivity growth from the other factors which cause output per head to change is to calculate what is usually referred to as the growth of either total factor productivity or multifactor productivity.
- Total Factor Productivity (TFP) indicates the productivity of all purchased inputs and is the most useful approach to productivity measurement. Technological change is a concept based on the physical measurements of science and engineering, while the TFP measures the economic impact of technological change. Any change in the quantities or qualities of inputs or outputs is classified as technological change. Total Factor Productivity (TFP) is defined as the ratio of aggregate gross output to aggregate purchased input, expressed in real terms. Therefore, we can define as TFP:  $TFP = \frac{\sum_j w_j Y_j}{\sum_i z_i X_i}$  where:  $Y_j$ =physical quantity of output  $j$ ,  $X_i$ =physical quantity of input  $i$ ,  $w_j$ =share of output  $j$  in the total revenue, ( $w_j = q_j y_j / \sum_j q_j y_j$ )  $z_i$ =share of input  $i$  in the total cost, ( $z_i = p_i x_i / \sum_i p_i x_i$  is the total input cost or the total cost of production),  $q_j$ =the price of output  $j$  ( $j=1,2,\dots,j$ ),  $p_i$ =the price of input  $i$  ( $i=1,2,\dots,i$ ). TFP aggregates are created by adding individual factor productivity weighted by the corresponding share of each input in the total cost of production. This procedure assumes that the production process is organized to minimize the total cost of production. TFP is given in terms of unit factor requirements by:  $TFP = u_i z_i (1/u_i) = u_i z_i (y/x_i)$ , where:  $u_i$ =physical units of input  $x_i$  per unit of standard output, ( $i=1,2,\dots,m$ ).

## 2. Globalisation, investment, productivity and economic growth

Economies may have internationalised to a considerable degree, but wealth, investment, productivity and output remains local and extremely unevenly distributed. The danger of globalisation is that it tends to ignore these distributions, it treats the world as a single open competitive market and the location of economic activity as dictated by purely commercial considerations.

International flows of goods and of finance capital have doubtless increased sharply over the last few decades. Nontraditional manufacturing exports from the newly

industrializing countries (NICs) of Asia to the developed have scaled new heights. The rapid growth of national incomes in China, Malaysia, Thailand and Indonesia has been accompanied by an accelerated expansion of foreign direct investments (FDI) from outside and within the region, especially Japan, Hong Kong, South Korea and Singapore.

Some have heralded a new era of globalization marked by rapidly growing world trade and capital movements. Others argue, however, that the world economy is actually less integrated today than it was in the late nineteenth century (see for example Rodrik, 1997). But such comparisons invite further scrutiny. It is true that labour movements, in the form of mass migrations from the old world to the new, were substantially higher during the nineteenth century than they are today. Similarly, net capital outflow relative to GNP was much higher in the United Kingdom before World War I than at any time since.

Investment is an important factor on the process of the technology transfer, economic development and economic performance. MNEs (Multinational Enterprises) and FDI (Foreign Direct Investment) are the main policy tools for the international technology transfer and the development of innovation activities in many countries. Multinationals also produce and control most of the world's advanced technology. About four fifths of the FDI and the production of advanced technology originates from the Japan, Germany, United Kingdom, United States and Switzerland.

A large share of these labour and capital flows was restricted to the same group of countries which today account for the lion's share of goods flows. The significance of capital and labour movements in such a comparison cannot be considered apart from trade flows. Economies may be "integrated" by goods flows even in the absence of any factor movements. Turning to trade volumes relative to national incomes, measured openness in the United States and in Europe peaked before World War I, fell sharply between the wars and trended upward after World War II. By this measure, the advanced economies of the world are not any more open in 1997 than they were in 1897. But per capita incomes in these advanced economies are many times larger today and, as a result, the share of services, which tend to be far more nontradable than goods, is considerably higher. Hence, even constant trade ratios represent a significant increase in openness.

A rather more compelling argument against the liberal use of the term globalization is that the movement of goods, capital and enterprises across national boundaries is marked by great unevenness. First, developed nations, whether as sources or as destinations, account for a disproportionate share of these flows relative to their share in global income. Second, even as tariff barriers have declined, old forms of nontariff restraints on trade persist while new ones are coming into vogue. Third, the formal and informal creation of regional blocks for trading and investment may be seen as a threat to the forces of integration across these blocks and, even more, as a factor further isolating the numerous countries and regions in the South that do not enjoy political or economic proximity with Japan, the United States or the EU. Finally, there remain great asymmetries in the stability and composition of exports as between the developed nations and NICs on the one hand and the less developed countries (LDCs) on the other.

Most of the empirical studies emphasized the profits, the age and the amount of new technologies transferred by MNEs. Usually, the affiliate companies operate in a monopolistic market where the new technologies gives its products a *quality advantage* and a higher market share. FDI contributed substantially to the transfer of technological inputs and consequently to the modernisation process.

As we have mentioned, we can define productivity as the ratio of output to input. A productivity ratio may be changed when the price or unit cost of an output or input is changed. Productivity change is an important aspect of technological change, so that productivity measurement plays a crucial role in assessing the effects of technological change.

The studies of Abramovitz (1986), and Fagerberg (1987, 1988, and 1994) have

suggested that there is a close correlation between investment on technological development and that of the productivity level.

Economists have analyzed different possible views of why productivity growth has declined. These alternative explanations can be grouped into the following categories:

- (a) the capital factor, for instance investment may have been inadequate to sustain the level of productivity growth;
- (b) technology factor which affects the productivity level, for instance a decline in innovation activities can affect productivity growth;
- (c) increased price of raw materials and energy;
- (d) government regulations and demand policies that affect the productivity level;
- (e) skills and experience of labour force may have deteriorated or moreover workers may not work as hard as they used to;
- (f) products and services produced by the economy have become more diverse;
- (g) productivity levels differ greatly across industries.

Productivity growth exhibits a strong cyclical pattern. Productivity rises first in booms and falls or rises more slowly in recessions. This can be accounted for simply by variations in utilisation rates, in boom factors, both capital and labour are more fully utilised so output per head and TFP rise. Whereas, in recessions the reverse occurs. Usually, productivity has risen faster in manufacturing than in the economy as a whole. This may reflect more rapid technical change in manufacturing, but it probably also reflects measurement problems.

Most manufacturing output is directly measurable which means it is fairly easy to observe productivity growth, despite the inevitable index-number problems. In contrast, many as services have to be valued at the cost of the inputs used, the reason being that output cannot directly be measured. For example, education and public administration, may be becoming more efficient without this being reflected in measures of output.

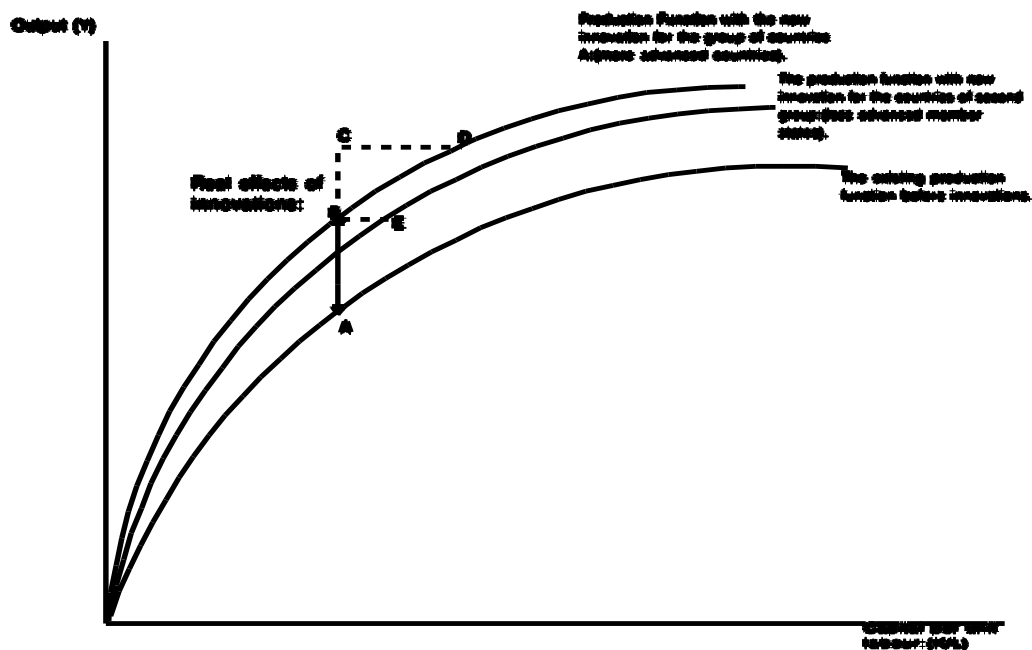
Following the analysis of Landau, we can assume that there is a production function that relates output to capital per unit of labour and also we also assume first that the economy is at the point A (where labour force growth is static and investment is at an average level). When a new investment takes place (in the form of a new technology, for example) is introduced there is an upward shift in the productivity and consequently in the production function. Of course, the shift of the production function will be different across different countries. This shift of the production function implies additional output per person and probably this can lead to extra savings and consequently to more capital per worker, which means that the economy will move along the production function.

Figure 1, illustrates that the economy reaches the point E for less advanced countries and point D for more advanced countries. The real effects of investment on innovation, for example, can now be measured by the distances AE and AD respectively

As we have seen, it is widely accepted among economists that the term *productivity* refers to the relationship between outputs and inputs in real terms. The ratio of real gross product to real factor costs (*Total Factor Productivity* TFP) reflects the net saving of factor inputs per unit of output and thus the increase in productive efficiency. TFP is to be distinguished from what may be termed as *total productivity* which is the ratio of gross output to all associated tangible inputs (labour, capital and intermediate products). This ratio is useful to compute for industries, establishments and firms since there is usually substitutability among all classes of inputs intermediate and basic factors. The TFP for the entire economy can be calculated as a weighted average of total productivity measures for

the various industries when weights are the ratios of the value of gross output for each industry to total value added (GDP) which sum to more than unity.

The studies of Schmookler, Kendrick (1984), Abramovitz (1986), have recognized the interaction between investment on technologies and that of productivity. In these studies, factor prices were used to weight the various inputs so as to get a measure of total input growth.



**Figure 1:** An investment on technology and the impact on production and productivity

The approach which was developed by Abramovitz (1986), Solow (1957), Denison (1962), refers to the common method for decomposition of output growth into its various sources, which can be defined as the *growth accounting and residual method*.

*Growth accounting* theories began with Kuznets and were developed by Abramovitz (1986). One of the main tools used in the measurement and analysis of TFP is the *growth accounting framework*. This analysis assumes the existence of a production function, constant returns to scale, cost minimization and competitive input and output markets. However, important sources of growth in TFP, such as economies of scale, and learning effects cannot be directly derived by the growth accounting techniques; econometric models can give estimates of these effects.

TFP growth is amounted as a residual after the measurement of the effects of other factors. These studies were mainly based on comparison between the growth of inputs (capital and labour) and the growth of output; one part of actual growth could not be explained and it has been classified as *unexplained total factor productivity growth* (or the so called *residual*). These can be incorporated in the *growth accounting framework* using the following formula:

$$\Delta TFP_R = \Delta TFP - \Delta TFP_{SE} - \Delta TFP_{LC}$$

We can also write the following equation for the output growth:

$$\Delta Y = \sum_i \Delta X_i + \Delta TFP_{SE} + \Delta TFP_{LC} + \Delta q_y + \Delta TFP_R$$

the output growth is explained in terms of the growth in inputs, scale effects ( $\Delta TFP_{SE}$ ), learning curve effects ( $\Delta TFP_{LC}$ ), changes in the quality of output ( $\Delta q_y$ ) and residual or unexplained growth in TFP ( $\Delta TFP_R$ ).

“*Growth Accounting*” begins with the measurement of factor accumulation and then imputes output expansion to the inputs that have been accumulated by assuming that market factor prices reflect value marginal products. The part of output growth that cannot be attributed to the accumulation of any input is referred as the *Solow residual* and is attributed to technological progress. By differentiation the rate of growth of technology could be viewed as the difference between the rates of growth of output and of a weighted average of the inputs. Later, Domar called this variable as *the residual*. The growth-accounting approach attempts to explain changes in real product and TFP. Denison's objective was to explain as much of the TFP residual as possible by the major determinants other than *advances in knowledge* applied to production and then attribute the final residual to technological advance.

Following the decomposition analysis of Solow, many alternative factors can explain the path of economic growth. The *residuals* of Solow are attributed to technical change; according to his findings, technology was responsible for 90 per cent of the increase in labour productivity for the United States in the twentieth century.

The purpose of growth accounting is to determine from the empirical data how changes in real output (between two periods, say  $t=0$  and  $t=T$ ) can be attributed to changes in the inputs (capital, labour and technology respectively). The unexplained decline of productivity growth can thus be regarded as a result of the collapse in technological activities. In particular, this may have happened because the availability of technological opportunities was temporarily or permanent reduced. The *residual* could contain a number of important influences on productivity growth, but to equate the *residual* to technological change is not justified. It can be explained by technology, resource allocation, education, and scale factors. The basic point of criticism of these theories was that most of the variables in the *growth accounting models* are interdependent and there is no precise theory of how these variables interact. Some countries may grow rapidly because they use capital more intensively, others have may have fast growing populations. The standard interpretation of technological change is that *knowledge* evolves exogenously. Knowledge is relatively costless to import and all countries should attain the same term in their production functions. This implies a sort of *catching up* in which poorer countries acquire techniques and learn over time how to use them effectively.

Total Factor Productivity was introduced by J.Kendrick and applied to the output of industries, economic sectors or the economy. It can be measured the tangible inputs of labour (which is measured by man hours worked) and capital inputs (which is measured by capital stock derived as past investment less depreciation). The labour and capital indexes are then combined into an index of factor inputs by means of weights that represent distributive shares in industry product in the base period. Productivity growth is the difference between the growth of output and the growth of tangible input as measured by this index. According to this method, the productivity which arises from improvement in the quality of labour and capital is included in residual growth. It has been suggested that it will be necessary to determine and to explain the relationship between *active (engines of growth)* and the *passive* factors. *Growth accounting* tries to explain changes in real product and TFP. Denison concluded that technological change (or *advanced knowledge*) contributed by only 40 per cent to United States productivity growth.

In addition, *gap theories* (Abramovitz 1986, Fagerberg 1987, 1988, 1994) relate the investment on new technologies and innovation activities to the level of economic growth. *Catching up theories* (Abramovitz 1986, Fagerberg, 1987) started with the investigation of growth performance. The main idea was that large differences in productivity levels among countries tend to be due to *unexpected* events (for instance wars). For the productivity measure, we can use the real GDP per capita as an approximate measure. The most representative measures for *technological inputs and outputs* are the indicators of patent activities and the research expenditures.

According to these theories, countries with a higher level of investment on innovation activities tend to have a higher level of value added per worker (or a higher GDP per head) and a higher level of investment on innovation activities than others.

For the econometric analysis of *gap models*, the important issue is to include the most important variables. For the level of productivity, we can use as a proxy real GDP per capita (GDPCP). For the measurement of *national technological level*, we can use some approximate measures; for instance, we can again use the traditional variables of *technological input* and *technological output* measures, (GERD and EXPA).

The majority of empirical studies in the estimations between productivity growth and investment follow a standard linear model; on this context we use a similar approach. The reason is that even though a more dynamic relationship exists, the data limitations (lackness of time series disaggregate annual data for most countries) prevent the application of some complex models.

Following the model of Fagerberg (1987, 1988, 1994), we can test the basic gap model (with and without these variables) reflecting the structural change, in order to decide to what degree these variables add something to the other explanatory variable of the model.

We will use the external patent applications (EXPA) and gross expenditures on research and development (GERD) as proxies for the growth of the national technological activities, GDP per capita (GDPCP) (in absolute values at constant prices) as a proxy for the total level of knowledge appropriated in the country (or *productivity*).

Investment share (INV) has been chosen as an indicator of growth in the capacity for economic exploitation of innovation and diffusion; the share of investment may also be seen as the outcome of a process in which institutional factors take part (since differences in the size of investment share may reflect differences in institutional system as well).

Since annual observations are heavily affected by the short-run fluctuations, average values of the variables covering the period 1973-1992 were calculated. We have tested the following version of the model:

$$\text{GDP (or PROD)} = f[\text{GDPCP, EXPA (or GERD), INV}], \text{ (basic model),}$$

This model may be regarded as a pure *supply model*, where economic growth is supposed to be a function of the level of economic development GDPCP (GDP per capita with a negative expected sign), the growth of patenting activity (EXPA with a positive sign) and the investment share (INV with a positive sign).

However, it can be argued that this model overlooks differences in overall growth rates between periods due to other factors and especially differences in economic policies.

#### 4. Conclusions

The current economic period has been characterized as one of globalization. Globalization may be defined as a process of movement toward a situation where the obstacles to trade flows and factor movements *between* countries are no greater than the obstacles *within* countries. Although this end state remains a long way off, such movement has occurred at an accelerated pace since the early 1980s, through liberalization of trade, foreign direct

investment (FDI) regimes, capital controls, etc. in developing countries under structural adjustment programmes and similar, if more limited, changes in the developed countries under the GATT Uruguay Round, which also served to entrench many of the measures taken in developing countries. Technological changes have also contributed by reducing the cost of transport and communication and by facilitating trade in services (e.g., data processing) that would previously have been impractical.

Orthodox neoliberal economic theory predicts that global integration will bring benefits to developing countries through economic convergence. Lower barriers to trade and capital flows, even without free movement of labour, will tend to equalize factor prices, productivity and incomes over time. Convergence will not be absolute, in that the prices of nontradable goods will vary between countries, and production technology will differ between countries, according to their factor endowments, giving rise to differences in the productivity and real incomes of nontradable factors (land and labour).

According to the neoliberal model, freeing international markets and liberalizing domestic economies allows countries to move toward specialization in their areas of comparative advantage. For developing countries, where labour is plentiful and capital scarce, this implies a shift from often capital-intensive import-substituting industries to more labourintensive sectors, primarily for export. Coupled with capital inflows to finance investment in these sectors, the result is, in principle, labour-intensive growth, absorbing surplus labour.

In the literature there are various explanations for the slow-down in productivity growth for OECD countries. One source of the slow-down may be substantial changes in the industrial composition of output, employment, capital accumulation and resource utilization. The second source of the slow down in productivity growth may be that technological opportunities have declined; otherwise, new technologies have been developed but the application of new technologies to production has been less successful. Technological factors act in a long run way and should not be expected to explain medium run variations in the growth of GDP and productivity.

*Gap models* investigate the link between technology and growth over time, across countries and across sectors. The empirical estimates suggest that the convergence hypothesis applies among industrialized countries. Research on *why growth rates differ* has a long history which goes well beyond growth accounting exercises. The idea that the poorer countries should catch up on the richer ones was advanced already in the nineteenth century, in order to explain continental Europe's convergence with Britain. In the 1960s one of the most basic was the Marx-Lewis model of abundant labour supplies which explained the divergent growth experience in the Western European countries.

To achieve safe results, it is necessary to apply a cross country multi sectoral analysis, in order to be able to examine how technological activities affect the different sectors. According to our estimates there is a relationship between the level of economic growth and growth of investment.

Conclusions cannot be easily drawn from simple summary measures of the extent or the rate of compositional structural change, without having some additional information regarding the direction of change, the path followed from the previous industrial structure and associated and institutional factors.

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## Functional urbanization in the Statistical Systems of the European Union

### **Abstract:**

Functional Urban Regions not hardly ever coincide with the city limits in the morphological sense, though they are sometimes arbitrarily confused with the ‘urban archipelagos’, as for example multi-nuclear structures of the urban-rural mix (urban-rural compound) that shapes modern urban sprawl in the periphery of the larger cities. This paper attempts to analyze the functional urbanization in the statistical systems of the European Union.

**Key-words:** Urbanization in the statistical systems of the European Union.

**Spyros Anagnostou<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: Dr. Spyros Anagnostou, University of the Aegean, Department of Economics, University Hill, Mytilene: 8110, Lesvos, Greece. Email: [spanagn@geo.aegean.gr](mailto:spanagn@geo.aegean.gr);

## 1. Introduction

The concept of 'Functional Urban Areas' (FUAs) is the one was introduced as the equivalent of the *Metropolitan* – and *Micropolitan* – Areas of the American territorial statistical nomenclature, or to that of 'Functional Urban Region' (FUR) in the U.K.

Functional Urban Regions not hardly ever coincide with the city limits in the morphological sense, though they are sometimes arbitrarily confused with the 'urban archipelagos' ie multi-nuclear structures of the urban-rural mix (urban-rural compound) that shapes modern urban sprawl in the periphery of the larger cities.

As defined in the European Spatial Development Perspective - E.S.D.P, Functional Urban Areas are formed by two distinct and opposite components (CEC, 1997):

- (a) The core –which consists of the city in its morphological definition, based on a threshold referring to either the population size or the number of jobs within its limits. (The core may, in its spatial structure, be mono-nuclear or multi-nuclear - ie composed by clearly distinct sub-cores).
- (b) The surrounding zone, which is usually determined on the basis of a minimum percentage threshold of daily travel-to-work movements to the core. Based on international experience, the statistical threshold is most usually set to 15 or 20 % of the employed population residing in the respective spatial area.

## 2. The problem of the definition of the functional urban areas in the EU

The questions that concern the criteria of delimitation of Functional Urban Regions are open to discussion, regarding the choice of variables that will determine the core (such as the population size, the density of jobs, or the morphological criteria of urban tissue) – but also regarding the nature of commuting taken into consideration (work, consumption of goods and services etc). Also, open field of discussion is the one concerning the eligible size of the core but also the pertinent thresholds for the determination of the surrounding, commuting zone.

In the case of many modern Functional Urban Areas, the spatial patterns tend to be more complex, since:

- the simultaneous trend of an increase of new jobs in the periphery, as it often happens linearly, along motorways, or even in new emerging poles, and
- in many cases of European cities - especially in medium-sized cities with an historical character – there is an increase of the attractiveness of city-centers. Thus, the core and the surrounding zone form a functional coupling, with bidirectional flows.

Another problem in statistical methodology and nomenclature for FUAs is that in most European countries, at this stage, the Functional Urban Areas are characterized by an extreme volatility of their limits, since they are determined by functional correlations which vary continuously (unlike physical definition of the cities, who know a much lower change in time).

In particular, the rapid changes in the functional structure within many European urban areas, have to do with the two major factors that shape them, ie both, the rapidly changing "landscape" in the spatial distribution of jobs, and that of the housing market.

However, the determination of Functional Urban Areas for statistical purposes, does not only face the problem of continuous change of their limits but also that of the lack of comparability and interoperability of the statistical data between the different countries of the European Union.

This is owed in voids and methodological difficulties, in four levels:

- **different urban systems:** Depending on the phase of a country in its transition to the 'information society' - but also according to its particular historical and geographical conditions - the urban system presents different characteristics..
- **different commuting patterns:** Both because of the different characteristics of the economies and the technological level and because of different cultural norms and lifestyles, the scope and features of commuting diverge considerably. (The phenomenon is older and much more intense in northern Europe than in Mediterranean Europe).
- **different datasets between the countries:** Despite the efforts of Eurostat - particularly in the field of urban policy - in recent years, there are still substantial differences in the series of data produced by the Statistical Services of the member countries of the European Union.
- **different building block areas:** The delineation of Functional Urban Areas, regardless of the criteria it uses, is forced to adapt to the limits of administrative or statistical units (statistical districts), for which there is available data.

But it is known that neither the NUTS<sup>2</sup> nor LAU<sup>3</sup>-despite the official introduction throughout the European Union<sup>4</sup> – have been fully harmonized (Carlquist, 2006a). In Sweden, for example, the average size of municipalities (*kommuner*) is 1.437 km<sup>2</sup> and 30,300 inhabitants while at the other extreme, in France, the average size of municipalities (*communes*) is just 15 km<sup>2</sup> and 1,500 inhabitants - which is about a hundred times smaller.

Moreover, different reforms of local administration status across Europe is adding another factor of difficulty for the harmonization of the statistical territorial units in the European Union.

### 3. Functional Urban Areas and their role in spatial planning in the European Union

Functional Urban Areas appear today as the most appropriate spatial units for urban policies, something that has been emphasized by the E. U. institutions, such as the Committee of the Regions, or the European Economic and Social Committee. Furthermore, the growing need for urban statistics for these spatial units has been also emphasized.

Officially, this need was formulated for the first time, on the 14<sup>th</sup> of May 1998, in the Opinion of the Committee of the Regions for the “Statement of the Committee: “Towards a program for the urban environment in European Union” (EU-CoR, 1998).

The term of “Functional Urban Zone” was not met in the international bibliography, and had been introduced for first time in this document of the Committee of the Regions, accompanied with a general and purely theoretical definition.

The definition of a “Functional Urban Zone”, is a “network of cities and surrounding areas, who are interconnected in their local and regional economy, and the (daily) mobility of their citizens”. It is recognized that the Functional Urban Zone can provide solutions for the urban problems in the suitable scale, and is pointed out that its concept should be developed further in the future, so that is shaped a suitable frame for the urban policy.

In the same Opinion, the Committee stresses the need for comparable models, based on the “Functional Urban Region”. In the conclusions, is formulated the opinion that the concept of the Functional Urban Zone should have application everywhere, and does not depend from the size of cities. (Which means that the importance of a functional approach of the city is not recognized only in the level of metropolitan regions but in all the levels of urban hierarchy).

<sup>2</sup> NUTS = *Nomenclature des Unites Territoriales Statistiques* (Nomenclature of Territorial Units for Statistics).

<sup>3</sup> LAU = *Local Administrative Units*.

<sup>4</sup> Eurostat had created the Nomenclature of Territorial Units for Statistics - NUTS - from the 1970s, but for about 30 years, it was applied with difficulties, through "gentlemen's agreements" between the Member States and Eurostat. Only in May 2003, adopted by the European Parliament and the Council, Regulation (EU No. 1059/2003) that gave legal status to the NUTS.

Still, the Committee of the Regions, in its Opinion, of January 14<sup>th</sup> 1999, underlines the importance that could have for the ESDP the new concept of “Functional Urban Zone” (EU-CoR, 1999). In this Opinion, is recognized the importance that Functional Urban Zones have for the European planning.

Some very similar remarks are repeated the 1<sup>st</sup> of July 2004, in the Opinion of the European Economic and Social Committee, on the metropolitan areas (EU-EESC, 2004). After it is reminded that the concept of “metropolitan area” is close to that of “Functional Urban Region”, the EESC points out that there are no reliable and comparable urban and metropolitan data, in a European scale, in regard to the metropolitan areas –and the Functional Urban Regions in general.

The European Economic and Social Committee also expressly formulates the opinion that the European Union owes to ensure the production of such data by the member states. It is also pointed out that “the means that allocates Europe for urban statistics are today insufficient”. This is attributed in the first place in the fact that the European statistical system has been developed in connection with the European policies. More specifically however, it is pointed out in the text, the discrepancy between the system of Statistical Nomenclature of Territorial Units (NUTS) of the European Union, and the existing “urban regions”, as socio-economic realities that do not coincide with administrative units.

Thus, the data of Eurostat do not allow the monitoring of demographic trends in the metropolitan regions (and more generally in the urban regions). On the other hand, the lack of reliable and geographically comparable data leads the comparative studies in erroneous or even contradictory conclusions.

According to the European Economic and Social Committee, the Statistical Service of the European Union, in order to be able to produce “reliable and comparable urban and metropolitan data”, should allocate the required additional economic and human resources. For this reason, the Committee thinks that the constitution of a new spatial unit for “metropolitan regions” in Eurostat would be essential.

The European Economic and Social Committee, also in a second Opinion, in 2007 (EU-EESC, 2007) underlined the voids that exist in the matter of production of statistical data in the level of larger urban regions. But regarding the few available data, it is also characteristic the ascertainment of the EESC that, “the data that are transmitted by the statistical services are incomplete and have been gathered according national definitions, which means that they are still not comparable in a European scale”.

Regarding the steps taken the recent years to this direction – and particularly the effort of Eurostat via the “Urban Audit” project - the EESC points out that the characteristics of the information provided do not allow still a wide exploitation. And this is attributed by the EESC in the “particularly insufficient” means that have been allocated in for this task.

#### **4. Eurostat’s “Larger Urban Zones”, as a proxy for functional urban areas in Greece**

The concept of Functional Urban Area was introduced by the Eurostat under the term of “Larger Urban Zone”, in the “Urban Audit” project.

The collect of the Urban Audit data concerns three different spatial levels:

- **the city (as an administrative unit),**
- **the level of the district (sub-city district) and**
- **the Larger Urban Zone - LUZ**

This third spatial level, the Larger Urban Zone (LUZ), corresponds, according to Eurostat, to the concept of Functional Urban Area (given that its delimitation is based on the commuting flows. The statistical threshold for the incorporation of a territorial unit in the Larger Urban Zone was fixed at 15% of the residing workforce.

The choice and the determination of the appropriate level for the Larger Urban Zones resulted after long consultations with the national statistical services and with the fundamental criteria of comparability and availability of statistical data (Eurostat, 2004). It was precisely for reasons of availability of statistical data, that had been already accepted (in 2003) the use of the spatial level NUTS 3, as the approximate Functional Urban Area for big cities –which is also underlined by the choice of the term “Larger Urban Zone”.

Initially, 9 countries of the Urban Audit used NUTS 3 units as basic territorial units for the determination of Larger Urban Zones, while 11 used NUTS 4 units (LAU 1) and 7 NUTS 5 (LAU 2). The average area of the 300 LUZ, was in 2009 1978 km<sup>2</sup>.

Regarding the Greek Larger Urban Zones, the Greek Statistical Service (ELSTAT), in agreement with Eurostat, proceeded in the revision of the LUZ limits for the 8 of the 9 major urban areas that participated in the Urban Audit.

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## Tourism Development, Policy and Planning

### **Abstract**

The purpose of this study is to examine the potential that tourist industry has if it is managed well to a sustainable development in terms of using suitable policies and planning for nature and society. Tourism has an economical impact on those fields and it's a great industry with benefits. Other trades are fossil fuels, telecommunications, computer equipment, automotive products and agriculture. It is dependent on local and national attractions and resources and is related with accommodation, travel agencies, social media, restaurants, publishers which can be individual industries. On the other hand it can have devastating effects on environment and society and problems such as over tourism or seasonality in terms of its products or employment. The negative impacts can only be resolved effectively, if they are recognized, measured and evaluated. Tourism needs observance to the trends that change constantly and the preferences and motives of the tourists.

**Keywords:** tourism development, policy, planning, motives

**Sidiropoulou Dimitra<sup>1</sup>**

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<sup>1</sup> Corresponding Address: Sidiropoulou Dimitra, Λ. Μ. Αλεξάνδρου 29<sup>Α</sup>, 54641, Παραλία, Θεσσαλονίκη. Email: [sidiropouloud@yahoo.com](mailto:sidiropouloud@yahoo.com); Email: [dimi.sidirop@gmail.com](mailto:dimi.sidirop@gmail.com); Email: [dsidirop@econ.auth.gr](mailto:dsidirop@econ.auth.gr)

## 1. Introduction

Tourism is an industry that offers employment, job opportunities and training, income, interaction with people and a pleasant experience for both employees and tourists. Modern tourists are more suspected and demanding and they have quick access to information. This is to say they know the destination, its facilities, its attractions and the locals must have quality and offer them authenticity and real experience in order to make them visit the place again and gain good impressions on it. Moreover if the tourists find out that the business respects and protects the environment they will respect the business, because they are willing to use environmental friendly practices and they are more aware and active. They want to participate in activities and learn about the history, the culture and the traditions of the area. Destinations adopt managed approach to develop quality sustainable tourism and cooperate with locals. It depends on the society if it rejects new habits of the tourists or embeds them into their own or make some changes or even abandon its roots and recreate its culture. Remoted areas more often than usual are manipulated by foreign forces and have no profit or the local population cannot be benefited by the tourism. Tourism is related with development in roads, public transport system, food services, hotels and restaurants and can increase the quality of life for residents if it is planned.

Tourism can bring people and cultures close, reduce prejudices, reinforce local identity and organize events and festivals. Local communities can strengthen and plan new strategies to attract tourists taking into account their local advantage and the region's history. Only the area's own attractions and past can lead to a sustainable tourism and not a borrowed culture. The real motivation that pushes the tourist to visit a place is the authenticity of the region, its real comparative advantage. So, the natural, cultural heritage must be protected with a legal framework and avoid negative impacts. "Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support system". [WTO 1998: 19]. Besides sustainable tourism recognizes the quality of local products and aims at tourists' satisfaction. All the people who participate in tourist industry must cooperate and stimulate each other to put the decided principles into practice. Monitoring should be based on carrying capacity of the area and limits must be activated in case of over tourism or unfavorable development. Then the control of activities must implement the regulations and authorities should be involved to improve services and establish a network for the tourism sector. A plan must describe the possible threats and dangers as well as the chances. A vision must be described and the actions should be taken to make it real. There must be a planning process, a team for the project, a structure and decisions compiled by the stakeholders and the feedback and review must be designed. One of the main weaknesses is when planning is done only by experts and state authorities and locals do not influence the decision making process or the fragmented initiatives. Whereas when locals participate, they will feel responsible for the implementation of the plan and part of it.

## 2. Developing the Tourism Product

All the sectors related to tourism need to be considered and cooperate in order to benefit the local areas from the tourism development. Additionally, the product design and the tourists' preferences need to be adjusted. The tourist product must be placed at the supply chain and designed to support the local economy and residents. Investments should support the sustainability by installing new equipment, improve the customer service and promote and support in the local community. Besides, the governance and the owners of restaurants, the entrepreneurs, should invest in a marketing plan in order to make a destination more attractive to the customers. All the services and the local products must be promoted to this business

plan. This plan needs people well educated, awareness, expertises, funds, and access to the local social media, press and distribution channels. Other programs should be affordable to small businesses that cannot afford a lot of money for investments. Moreover destinations who are not on demand must also be included to promotion plans to foster their attractiveness to visitors. The people who are related to tourism must upgrade their skills and train themselves by participating in educational activities in the countryside. As a result of this special education, will be the specialization in new tourist products such as ecotourism, rural tourism, marine tourism and sports tourism. Even bird watching or boating for guided tours can develop new unexplored areas.

As for Greece, tourism has a lot of people who visit our country for the environment, so our first priority is to protect it with environment-friendly activities such as those of alternative tourism. Alternative tourism in contradiction to the mass tourism model can protect the environment. More research needs to find out the carrying capacity of each tourist destination, islands and coastal areas and the extent they resist in alternative sustainable development. The new tourist products must have social changes in tourist areas and institutional changes to adopt policies that promote alternative tourism and scientific debate and collaborate the model of mass tourism and the new one of tourism with special interests. Motivation as auto definition and meaning is very important to urge one to start travelling. According to Thomas(Thomas(1951), “If men define situations as real, they are real in their consequences”. This is to say that if we want to design tourist products for tourists needs and actions, we must not examine their behavior, but their definition of the situation.

A trip has different meaning for everyone. Let’s examine a family, children seek for modernity and new friends, men for relax, women for opportunities to change performances, recreate their strength. Some groups want to socialize, some others are involved in activities, completeness and integration has a different meaning for each person. Thomas recognizes four desires, the experience, the response, the security and the recognition. Tourists imbue their movements and mobility with meaning. One can be a traveler to his country, if he has no responsibilities to it and wants to satisfy his needs for conformity, curiosity to see new places and traditions. To the same group that travels each individual can return to a place for different reasons, because he is motivated by a special meaning and he has the freedom to choose.

Rather a pluralistic and holistic approach suits with tourism strategies design. Satisfaction measures the events and expectations, which are based on motivations and imbued with meaning and is not only an emotional reaction to pictures and destinations, but it comprises intellect and will as well. According to Boorstin(Boorstin(1964), modern tourists want to experience the strange, but in a familiar and safe environment and tourism provides pseudo events by organized tours, which serve commodity reasons and contrived experiences. Young people have increased their purchasing power and travel more to contact with locals, want to benefit them and visit nature. They always utilize new technologies and learn about the destination before travelling. Some travel for educated purposes in a student exchange, they may not be tourists, but they engage in tourism activities, as they will eat in restaurants and visit new places. If they are target group in a tourist plan, digital technology at the hotel must be necessary. When they are young they also travel to improve their social status, increase self –esteem and gain the sense of social belonging. More often than not, they count the success of the journey with likes at social media.

Tourists have different motivation, conduct and requirements. Others travel to relax, some want to lessen mental fatigue and they all recharge their batteries due to personal

driving forces. Well educated people search for quality in facilities and services. Destination managers must take into account all these factors to attract customers with offers and make their experience unique. They must also be honest and real and put authentic pictures of their business in social media and give correct and real information to customers. Only in this way, visitors will come back again, which is the desired. Otherwise they will not visit this destination again. Mc Canell(1976) asserted that tourists embody a quest for authenticity, which is their key motive, a result of a tourist industry that staged authenticity for their needs. Cohen(1972) identifies four roles to classify tourists, the organized mass tourist, the individual mass tourist, the explorer and the drifter. Cohen also classified experiences in five categories, the recreational, the diversionary, the experiential, the experimental, the existential. Tourists can play several cultural approved roles in the same trip and become the ones they want to be when they travel. Their behavior and roles constantly change as their preferences and they need a deep understanding. We must also search for the social frame that inspires them with specific roles.

### **3. Planning**

Stakeholders in tourism management planning are neighbors and residents, farmers, fishermen, hoteliers, restaurant owners, tour operators, and agencies, local authorities. The planning must think of the regional social and historical characteristics, the biological diversity and the features of the destination that can foster tourism development. The stakeholders have to respect their heritage and the significance of the beauty of the region. Besides tourist information must include maps and other additional material in order to let the tourists know about the area. Management strategies must aim at low impact assessment, avoid negative impacts and make use of the positive impacts. Especially the protected areas must consider the three dimensions of environmental, social and strategic environmental assessment.

The number of tourists in natural and cultural areas should be limited so as to protect the heritage. Planning must include policies to waste disposal, reduce, recycle and reuse the waste. The whole process needs objectives, program, and a monitoring process. This needs data collection of the facilities, evaluation and reporting, analysis of the carrying capacity and the favorable results. Specific rules should be set regarding the numbers of the visitors, the related activities and the type of tourists for protected areas. Visitors' management focuses on the level of habitat. Monitoring will help to control the impacts or avoid the negative impacts for the future. Visitors must be educated to respect the environment and use practices to save waste. They must have a meaningful experience according to the expectations of each individual. They must feel safe to visit places of their interest and willing to use efficiently water and energy. Additionally, they must use local products and learn about the opportunities they have in the area to make use of them.

Tourism is a holistic and complex experience which is unique for each person and starts when they decide to travel and leave their home and ends when they return. Even then, through to memory the experience can be unforgettable and make the tourists feel the mood to visit the place again. Public and private sector should cooperate to build new shopping centers in remote areas, information offices, facilities and make cities attractive to inspired people who prefer old neighborhoods with special interests, art festivals, events open for all, and culture offices, which include events and experiences for minorities and the public. Locals must be allowed to participate in the planning process because they know their needs.

As for Greece we must participate in the European modernity from a position of superiority which derives of our ancestors of classical Hellas. Europeans have inherited a heritage based on the ancient Athens to a great extent. Places as Acropolis are seen as sacred due to their symbolic meaning as reminders of the classical antiquity. Modern museums try to create an ideal perception of the past and save our heritage and rescue antiquities. We also

have plenty of Roman and byzantine churches who attract not only Orthodox Christian, but pilgrims of other worships as well.

The classical archaeological sites motive people with veneration and almost religious respect with their symbolic power. They give to tourists the authentic experience to inspire the antiquity and they consequently feel it as global heritage and a symbolic capital to the global cultural economy. Antiquity continues to create a narrative story and inspire from the Ministry of Culture to the restaurants, gastronomy, souvenirs and stores' decoration, it still has a moral authority.

Protection issues for the traditional settlements in Greece are inadequately managed, because the degree of protection is not specified according to their special characteristics and features with guidelines for all spatial planning. A project that involves research activities, criteria and indicators, a tree inventory, and the training of personnel in order to create a system of monitoring evaluation and management of urban greenery to help cities adapt in the climatic change. As for Thessaloniki, this capacity allows citizens to enter website and find the identity of each tree, the actions of the municipality and their active participation and intervention to issues about city's green or to avoid accidents to persons and properties. Natural ecosystems need care and offer to residents benefits of clean air and aesthetic beauty to the city.

Large tourist complexes brought economical, foreign agencies, governmental policies changes and many jobs to tourist industry were offered to locals and altered the communities' traditional dynamics. People have started to prefer tourist jobs than agriculture or other traditional professions. The majority of residents in islands or villages became shop keepers or wage earners and many had two jobs in parallel. Sometimes the whole family occupies in a tourist shop or restaurant or a small hotel and the government has helped in the establishment of these business with funds, loans or other incentives.

People have different needs at several times which evolve constantly, so planners must adapt their offers according to customers' age, gender, lifestyle, education level, income in order to meet their expectations. Policymakers in tourist industry have adequately incorporate all these aspects in their decisions to different target groups planning. Especially for youth, planners should have a strong presence in social media and Internet with intelligent strategies to motivate young travelers.

Forests provide attractive environments for residents and businesses, help mental and physical well being, as well as fostering a sense of community (Konijnendijk,2008). Marketing plans must make cities appealing to both residents and visitors. This is very important if we think that tourism product is often sold before the consumer sees it.(Munoz,2004). Trees are marketing tools as they have an impact in tourists' experience.

Religious tourism is a great field of tourism phenomenon with perspective as it lasts all the year and is not restricted in one season or in one area. Religious faith in Greece has deep roots of two thousand years and the country is full of monasteries and holly monuments and relics. Personal contact and familiarity is developed between visitors and the monuments and the religious tours can have a positive impact on the economy of the area. Fragmentation is one of the current characteristics of this field, so it needs functional interconnection between all the factors with planning with the care to respect the dedicated visits. Planners must connect religious tradition with tourist organization as to keep the authenticity of religious meaning of the monuments and the personal needs of travelers. If the Greek visiting regions will be considered as a historical palimpsests, then there are serious possibilities of a innovative development, as in Greece there are eighteen monuments of global cultural

heritage of Unesco. Limits must be put in order to make the experience authentic on the one hand and do not underestimate the tourist product in a commodity on the other. A narrative story sets the monument in the centre of the interest, inspires a vision of authentic experience and integrates the members of the local community in a broader frame. Travel is experiencing as an extrovert force to another place but as an introvert force to inner self and its intellectuality. Interconnection of the stakeholders in a frame of reciprocity and synergy is required for a polymorphic tourism development. Seasonality must be accounted in planning to make a destination attractive through all the year and achieve returns of the investments. Life cycle of products means that they will be downgraded and they need replacement or change. Locality is promoted and season ability is faced with the development of special interests and alternative forms of tourism. They must coordinate to bring new methods, products, programmes to make the best use of the local environmental and cultural resources.

### **3.2 The role of family in the tourist development and the interaction of local communities to tourists**

As locals come in contact with tourists they interact with them and adopt new manners, customs and traditions. How would locals react to the foreign civilization? Would they be afraid of damage their identity or limit the consumption of the tourist product? Actually, tourism is an economic phenomenon, so many sectors rely on it and on activities that support families' income. The paternal model gradually started to lose its dominance and all the members of the family started to have social and economical independence. Tourism professions helped this economic independence and families take advantage of the benefits in social structure that tourism brings. Social and profession mobility is very intense as young people consider that tourism is a tool for modernization and they even lead groups to change the mass tourism development which seems to be problematic for their areas. Society is the spiritual centre where are created pressures, tensions and dissatisfactions when people try to conform to the rules and they want to travel and escape from the daily routine lifestyle temporarily.

According to Cohen, (Cohen,1979:181) tension management need to create finite provinces of meaning. Some tourists seek for authenticity in the life of others. The existential tourists want real experiences and authenticity. According to Gottlieb, Americans want to invert the usual roles of their lives and become peasant or Queen for a day(p.173). Doing the same thing does not mean they belong to the same category of tourists. Jacobsen asserts (Jacobsen2000) that tourists want to distinguish themselves from other travelers. They might commit a role but with a clear distance from the identity that accompanies it (Goffman, 1961:110). Women can have their own business or work easily in a tourist company. They all use technology and this has influenced their family relationships and the tourists with locals. Those who need development at their islands are very positive to the changes, whereas those who are already developed are more skeptical. Therefore, a conflicting situation arises, as they want tourists go at the end of the tourist season, but at the same time they worry if they do not come back next year.

Tourists as a mass organized group are constructed as being responsible for cultural erosion, environmental degradation and passive mass consumption, whereas traveler is a safe and moral construction. Young have become more autonomous and have adopted modern style of living and become friends with foreign tourists and some of them visit their countries, too.(Haralambopoulos & Pizam, 1996; Tsartas et al., 1995). A dialogue on tourism development must be opened at the scientific researchers, emphasis to the protection of environment and the local characteristics to upgrade the tourist product. Tourists need experiences of the new, novel, change, real and balance between the stability and familiarity and the need for strangeness for the best possible optimal arousal. These needs motivate

tourists to engage in touristic ephemeral roles and interact with new environments to satisfy their psychological needs.

Tourism is often a result of a family strategic plan to promote youth members socially and financially (Kousis, 1989; Galani-Moutafi, 1993; Nazou, 2003). Small business employ family members. Large scale business offer opportunity to the younger to find easily job and improve the standards of living in education and quality. Younger members are affected and influenced from the type of business that their parents are employed and they make similar jobs as a family tradition. Sometimes they hold more than one position in the tourism industry in order to improve their social status. Employers of other economic sectors are more likely to accumulate human capital that can be applied within the tourism industry.

#### **4. Discussion and Conclusions**

The projects for tourist development should have a cohesive role in research, foster the memories, the history of European heritage, cultural exchanges between youth across Europe, modern art and cultural practices, cultural tourism and sustainable cultural development which contribute the dialogue of all areas and organizations to involve the cultural heritage at their activities and contribute to the sustainable development of tangible and intangible cultural heritage. In July of 2009 was created the NECSTouR, an open website of European tourist regions to give the chance in users to exchange knowledge and solutions in the field of sustainable and competitive tourism and some funds for supporting programs for ecotourism, agriculture, employment and training. In 2013 the European Commission made a virtual tourist place for observation to collect and save data to ensure complicity of different levels of decision making in tourism. The UNWTO has three challenges which include the preservation of religious sites and monuments, respect for local traditions and religious practices, the inclusive development of local communities (Rifai, 2015).

Taleb Rifai regards religious tourism an effective tool to foster sustainable development. National and international agencies should collect data for the experiences they can have in religious cultural tourism so they can appreciate the scale of this form of travel and take advantage of it. Tourists are an ideological, moral, political complex construct which achieves international goals. They have several experiences, motives, needs which need awareness and reaction and see tourism as a holistic phenomenon. It is of great interest how people affect the publicity of a place and make the destinations brand name and identifiable according to the people who visit them.

Tourism development plays a catalyst role in the regions and it needs education, research, funds and financial policy, infrastructures, collaboration, image making and marketing. It needs new tourist products based on alternative tourism and tourism of special interests, identified objectives, real expectations, honesty in the facilities stakeholders promise and what they really provide and an institutional frame. Each region must exploit its own characteristics and advantages instead of relying on foreign traditions and forces for a sustainable development. Local culture, traditions, history, monuments, narratives, dishes, routes, must be promoted. Residents do not need colonialism, regions need investments and support with funds which highlight their special potential and local participation in decision-making, equal chances for employing the host population. Development of the areas is essential to be attractive and be competitive with others which are already appealing, but not commercialized. The tourist area evolution is consistent and polymorphic and needs well-defined tourist markets and a year-round tourist market with low cost and accessibility with

predetermined capacity limits and emphasis in tourist relics and religious tourism. Tourism plays an important role particularly for economies in transition.

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## **National Systems of Innovation and the European Regional Growth: A Stochastic Frontier Analysis**

### **Abstract:**

Research and Development directly related with industrial infrastructure, productivity effects and regional development. The term of “national system of innovations” indicates the national technological capabilities, and also the structure and the planning on research and development. European technological policy has an important role for the economies of member states. Technological policy aims to reinforce the competitiveness, and to succeed the convergence between member states. The purpose of this paper is to analyse and examine the evaluation and the development of Community's policy and how it can be implemented to the member states. This paper also attempts to examine the effects of innovation activities and the impact of innovation policy on growth and productivity, and integration process.

**Key-words:** Innovation, national system of innovations, integration and convergence.

**Aikaterini Kokkinou<sup>1</sup>**

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<sup>1</sup> Corresponding Address: Dr. Aikaterini Kokkinou, Associate Professor, Higher Military Academy of Greece, Athens, E-mail: [aikaterinikokkinou@gmail.com](mailto:aikaterinikokkinou@gmail.com)

## 1. Introduction

The growing importance of technological change in world production and employment is one of the characteristics of the last decades. Technological change is not only a determinant of growth, but also affects the international competition and the modernisation of a country. The adoption and diffusion of new technologies affect the structure and the competitiveness level of the whole economy. The choice of technology depends upon a large number of factors. It depends upon the availability of technologies, the availability of information to the decision maker, the availability of resources, the availability of technology itself and its capacity for successful adoption to suit the particular needs and objectives. The advanced countries which among the leaders in technological change rely on well-functioning large economies have tended to put more emphasis on these policies that aim to encourage the development of research and technological activities.

New technologies play an important role to productivity and to competitiveness of a country. For instance, the faster the technological progress is, the faster should the factor productivity rise and the less "cost-push" should exert upward pressure on the price level. The principal effects for technological policy can be distinguished in demand and supply sides. The economic performance of the bulk of manufacturing industries and services that lie outside new technology sectors depends to a large extent on adopting ideas and products developed elsewhere. Since society benefits from research and technology efforts of firms, public policies should provide an environment which stimulates innovation while allowing maximum use of their products.

This paper focuses on the importance of R&D innovation activities towards the productivity level enhancements (through increases in production value added). More specifically, that paper attempts, using a transcendental logarithmic production function, to investigate the relationship between productivity growth and technological change. The paper attempts to develop a model of efficient producer behaviour and investigate possible types of departure from full technical efficiency level regarding innovation activities, to develop an analytical econometric technique for examining the above, and finally to demonstrate the obtained results and come to safe conclusions as far as modelling producer behaviour at industry level (applied production analysis) is concerned.

More specifically, this paper estimates, incorporating a Transcendental Logarithmic Production Function, the technical efficiency level of different industries in selected E.U. countries. The model considers panel data for inefficiency effects in stochastic production frontier based on the Battese and Coelli (1995), providing translog effects, as well as industry effects. Our model accommodates not only heteroscedasticity but also allows the possibility that an industry may not always produce the maximum possible output, given the inputs. Unlike most studies, we estimate time – varying technical efficiencies (incorporating ‘learning – by doing’ behaviour) as industry-specific fixed effects. Furthermore, the model decomposes total factor productivity (TFP) growth into two components: technological growth (essentially, a shift of production possibility frontier, set by best-practice enterprises) and inefficiency changes (i.e., deviations of actual output level from the production possibility frontier).

## 2. Technological Framework and the Regional System of Innovations

The analysis of system of innovations helps to understand and to explain, why the development of technology is necessary in a certain direction and at a certain rate. We should

be very careful in the definition of the "regional systems" according to which sub-systems should be included and which process should be studied in the different countries.

We are using the term of "innovation" rather broadly, in order to encompass the processes by which firms master and get into practice product designs and manufacture processes that are new to them, if not to the nation. We are adopting in the term of "innovation" the actors that do research and development. The term "system" indicates something that is designed and built, but this concept is far from the orientation here. The term here indicates a set of institutions whose interactions determine the innovative performance. The term of "system" concept is a set of institutional actors that play the major role, influencing the innovative performance. We are using the term "regional system of innovations", in order to indicate the policies that are related with research and technological activities planning, (both from a macro and micro economic view) in a region.

The first approach and definition of "system of innovations" is that, it's a social system that is constructed by a number of elements, while there is a close-relationship between these elements. These elements are "interacting" in the production, diffusion, and economic cycles. We can define "the system of innovations" from a "narrow" view. According to "the narrow definition" it includes organisations and institutions that of involved in searching and exploring the new technologies (such as technological institutes, and research departments). From the other side, the "broad" definition follows the theoretical perspective and includes the different parts of economic structure (such as the production system, and the marketing system). On international scene, when the large countries change the orientation of research activities, this is affects the small countries. Any improvement and technological sophistication in the traditional sectors for the large countries have usually pushed the small country' firms for the same sectors to follow the new technologies.

The development and diffusion of new technologies for a small country usually depend on the actions that have been undertaken by private enterprises and public sector organisations and institutions. However, this is a complex and interactive process that is taking place in the national system of production and affecting the competitiveness of the market and economy. In the contexts of bibliography, usually there are two different approaches analysing the international competitiveness for the small countries. The first approach is mainly based on the trade theory and on the "relevant advantages" for the small countries. The second approach is based on the long-term accumulation of innovative and technological capabilities and in the technological specialisation for the small countries.

There are a lot of reasons suggesting that a "free-enterprise market system" without government intervention (particularly for small size countries) is likely to support insufficient scientific effort and sometimes this does not allocate to an efficient pattern. We can summarise some of these reasons: First, companies (especially small medium enterprises) are usually unable to allocate the appropriate and adequate share of total gains in such efforts. Second, risk and uncertainties associated with such efforts that cannot be undertaken fully by private agents. Third, social problems that imply the transmission of scientific and technological activities. Fourth, imperfections in capital markets that is in the provision of funds for scientific efforts and technological changes. Fifth, avoidance of wasteful duplication of scientific services. Sixth, consideration of national security. Seventh, the development of large scale-economies and the importance of the markets. These reasons advocate that the government technological intervention is an important point for the development of research and scientific activities.

Usually, it is also true that the small and weak technological countries have fewer resources than the larger countries. Small countries can be allocated to less resources for research and technological activities than the larger countries. Due to these reasons, the small size countries are usually forced either to allocate their resources more thinly in different

areas and related activities, or to select some "certain areas" for research and technological priorities.

On the other side, the advanced technological countries are usually investing in the development of new technologies in "associated strategic industries" that aim to increase the competitiveness, the economic growth and the living standards. However, in practice different countries choose different priorities for technological and economic subjects and put emphasis, in these areas in which they believe they will have more potential in future. The advanced technological countries make their plans with more long-term scientific intensive criteria and usually the priorities that choosed are based in the most expensive and high technology areas, while sometimes they carry out research in collaboration with other countries. On the other side, the small countries are forced to choose these sectors, that they easily to develop, and to compete and furthermore try to strengthen the technological basis in international competitive scene. The existence of specialised research and technological institutions, the amounts allocated for research and technological activities and the availability of resources in the large countries, give an additional advantage and imply that the large countries are usually leading in the trends and in the fashions for the different research and technological topics. Therefore, the small countries tend to follow the "direction" set by the leading-large countries, and sometimes they are forced to follow even if the relevant research and technological topics are not the most appropriate and necessary to cover their specific needs. It is necessary, for the small countries to pay more attention to identify the specific priorities that can exploit the particular advantages (such as natural and human resources, and to increase their research expenditures). An important thing for the weak technological countries is to establish and to improve the technological infrastructure.

### **3. Innovation Activities within the European Union System of Innovations**

As it has been broadly described above, innovation is a key factor to determine productivity growth. Innovation helps in understanding the sources and patterns of innovative activity in the economy, as a fundamental prerequisite to develop better policies. As such, innovation assists Member States in identifying their own strengths and weaknesses and in designing corresponding policies and programmes. Notably to overcome weaknesses and valorise strengths by identifying policy priorities, providing examples to articulate policy strategies and to measure the impact of those strategies.

As far as each country is concerned, Germany, Cyprus, Malta and Romania are the EU27 countries displaying the largest improvement within their peer groups. Within each of the country groups there is variation in growth performance, with Finland and Germany showing the best growth performance of the Innovation leaders. Cyprus, Estonia and also Slovenia are the fastest growing Innovation followers. Czech Republic, Greece, Malta and Portugal are the fast growing Moderate innovators and Bulgaria and Romania are not only the fastest growers among the Catching-up countries but also overall.

Although the EU27 has been, overall, improving its innovation performance, the economic crisis may threaten this good progress, particularly in moderate innovators and catching - up countries. The EU27 is making overall progress, with particularly strong increases in the numbers of graduates in science, engineering, social sciences and humanities, venture capital, private credit, broadband access, community trademarks, community designs, technology balance of payments flows and sales of new-to-market products.

The type of growth experienced by the countries of European Union seems to have been a spurt rather than progressive catch-up, and the 2007-2009 global financial crisis in particular has demonstrated the fragility of this growth. At the same time, there are several growth accounting exercises that suggest that growth in this region during the late 1990s and early 2000s was based mainly on total factor productivity (TFP), which from a conventional economic perspective suggests that this growth should be sustainable since it is based on technical change. We argue here that productivity growth in the region is based mainly on production, not innovation capability. Whether this production capability can be converted into greater productivity as well as S&T outputs depends largely on the efficiency of the national systems of innovation (NSI). So, in institutional terms, the long-term growth of EE countries will depend on whether their 'broad' and 'narrow' NSI can become efficient and effective carriers of innovation based growth.

The literature on the determinants of productivity suggests several related reasons for productivity growth: increased capital intensity; human capital; technological change; and competition (OECD, 2001). The key problem in trying to explore the determinants of productivity growth is whether it is appropriate to consider each individual component as a separate factor, since their contributions are closely interrelated (OECD, 2001). One of the most important drivers of technological change is R&D. Hence, as is the case with other factors, the issue is whether it is appropriate to isolate R&D as a driver of productivity growth, from other factors. Aggregate studies often find that R&D provides a positive contribution to productivity growth.

The countries that are technologically backward have a potentiality to generate more rapid growth even greater than that of the advanced countries, if they are able to exploit the new technologies which have already employed by the technological leaders. The pace of the catching up depends on the diffusion of knowledge, the rate of structural change, the accumulation of capital and the expansion of demand. The member states that are lagging behind in growth rates can succeed in catching up, if they are able to reduce the technological gap. An important aspect of this is that they cannot rely only on the combination of technology imports and investment, but they should increase their innovation activities and improve locally produced technologies (such as in the case of new industrialized countries Korea and Singapore).

#### 4. Innovation Activities and Productivity Growth: An Empirical Analysis

We follow the approach of modelling both the stochastic and the technical inefficiency effects in the frontier, in terms of observable variables, and estimating all parameters by the method of maximum likelihood, in a one - step analysis<sup>2</sup>. Thus, we undertake an (one – step) estimation of the stochastic frontier model in conjunction with the parameters of the variables included to explain efficiency effects, as developed by Battese and Coelli (1992, 1995)<sup>3</sup>.

The model is a time – varying stochastic frontier model given a sample of  $N$  industries for  $t$  time periods<sup>4</sup>. The industries are assumed to produce a single output ( $x_{i,t}$ ) from inputs of capital ( $K_{i,t}$ ) and labor ( $L_{i,t}$ ). The basic specification is of a flexible (second – order)

<sup>2</sup> Battese and Coelli (1995) suggested that under the assumption of truncated normal one-sided error term, the mean of the truncated normal distribution could be expressed as a function of certain covariates, a closed form likelihood function can be derived, and the method of maximum likelihood may be used to obtain parameter estimates, and provide inefficiency measures.

<sup>3</sup> When employing regression analysis in the second step to explain the variation of the efficiency scores, it is likely that the included explanatory variables fail to explain the entire variation in the calculated efficiencies and the unexplained variation mixes with the regression residuals, adversely affecting statistical inference. The use of a stochastic frontier regression model allows for the decomposition of the variation of the calculated efficiencies into a systematic component and a random component.

<sup>4</sup> Finally, our model employs panel data set. In contrast to other stochastic frontier specifications, the major advantage of this approach is that it does not require any *a priori* assumption regarding the distribution of efficiency across decision making units (Stephan et al., 2008).

transcendental logarithmic (translog) production function model (Kumbhakar, 1989, 2000)<sup>5</sup> with time variable included in the stochastic production function. Maximum likelihood techniques are used to estimate the frontier and the inefficiency parameters. We adopt the standard flexible translog functional form to represent the technology, including the time variable *time* in order to account for technical change effects. More specifically, in our model, the three - input translog production function presenting both linear and quadratic terms and it may be written as follows:

$$\ln va = \alpha_0 + \beta_K \ln cap + \beta_L \ln lab + \beta_T \ln time + \frac{1}{2} \beta_{KK} \ln cap^2 + \frac{1}{2} \beta_{LL} \ln lab^2 + \frac{1}{2} \beta_{TT} \ln time^2 + \beta_{KL} \ln cap \ln lab + \beta_{KT} \ln cap \ln time + \beta_{LT} \ln lab \ln time + (v_{it} - u_{it})$$

w

here:

- $\alpha_0$  is the intercept of the constant term
- $\beta_K, \beta_L, \beta_T$  are first derivatives
- $\beta_{KK}, \beta_{LL}, \beta_{TT}$  are own second derivatives
- $\beta_{KL}, \beta_{KT}, \beta_{LT}$  are cross second derivatives

As a double - log form model (where both the dependent and explanatory variables are in natural logs), the estimated coefficients show elasticities between dependent and explanatory variables, relaxing the restrictions on demand elasticities and elasticities on substitution Fried (2008)<sup>6</sup>.

To investigate the determinants of the productive efficiency, we distinguish between two variable groups used in the econometric analysis:

1. First, variables internal to the industry, representing industry - type effects
2. Second, variables external to the industry, namely environmental variables, representing country – type effects

As far as the industry – specific variables are concerned, following a value added approach, and the analysis comprises:

1. Output (in Gross value added, volume indices, 1995 = 100)
2. Labour input (in Labour services, volume indices, 1995 = 100)
3. Capital input (in Capital services, volume indices, 1995 = 100)
4. Moreover, the model includes a time variable to capture the effect of technical progress, namely representing technical efficiency across countries in the years 1980 - 2005.

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<sup>5</sup> As far as the functional form of the stochastic production Function is concerned, estimation of the Stochastic Production Function requires a particular functional form of the production function to be imposed. A range of functional forms for the production function frontier are available, with the most frequently used being a translog function, which is a second order (all cross-terms included) log-linear form. As broadly described in Khalil (2005), the translog function is an attractive flexible function. This function has both linear and quadratic terms with the ability of using more than two factor inputs. Moreover, this is a relatively flexible functional form, as it does not impose assumptions about constant elasticities of production nor elasticities of substitution between inputs. It thus allows the data to indicate the actual curvature of the function, rather than imposing *a priori* assumptions.

<sup>6</sup> However, the generality of the functional form produces a side effect: they are not monotonic or globally convex, as in the Cobb – Douglas model.

For this analysis, the output is the dependent variable while the explanatory variables are the factors of production which are inputs into the production process. However, as an innovative approach, our analysis includes time as a specific variable, in order to capture evolution and differences in technical progress. Technical progress is a major value added determinant as new technologies allow the automation of production processes which lead to many new and improved products, allow for better and closer links between industries, and can help improve information flows and organization of production. At the same time, technical progress can be embodied in new equipment and trained workers may only be fully productive if there is the appropriate equipment with which to work. Increases in physical capital are clearly necessary as there are spillovers from capital investment to productivity growth. Generally, it is the combination of these three factors and the way in which they are organized and managed within the industry which determines the extent of productivity growth.

The parameters of the stochastic frontier model and the inefficiency effects model are estimated using maximum likelihood estimation (MLE), which is the preferred estimation technique whenever possible (Coelli, Rao and Battese 1998, Battese and Coelli, 1993)<sup>7</sup>. The parameters estimated include  $\beta$ ,  $\lambda$  and  $\sigma^2$  where  $\lambda = (\sigma_u / \sigma_v)$  and  $\sigma^2 = (\sigma_u^2 + \sigma_v^2)$ . Moreover, the model estimation results provide the joint probability density function (pdf) also known as the likelihood function. The likelihood function expresses the likelihood of observing the sample observations as a function of the unknown parameters  $\beta$  and  $\sigma^2$ . The maximum likelihood (ML) estimator of  $\beta$  is obtained by maximizing this function with respect to  $\beta$ <sup>8</sup>. Specifically, the maximum likelihood estimator can be shown to be consistent and asymptotically normally distributed with variances that are no larger than the variances of any other consistent and asymptotically normally distributed estimator (i.e. the ML estimator is asymptotically efficient).

Our analysis is based on estimating efficiencies as industry - specific fixed - effects at industry level of selected countries within European Union, during 1980 – 2005, employing the econometric software program LIMDEP 9.0. The countries selected to be included in the model are: Austria, Denmark, Finland, France, Germany, Italy, Netherlands, Spain, and United Kingdom, in order to create a data set including both countries with strong industrial productive base, such as Germany and France, as well as countries with low industrial productive base, such as Spain. The data used come from the EU KLEMS data base of sectoral accounts for productivity analysis (O' Mahony et al., 2008). We use the EU KLEMS sectoral classification, NACE 2 – digit level of industry disaggregating, comprising 13 manufacturing sectors: Electrical and optical equipment (30 - 33), Food products, beverages and tobacco (15 - 16), Textiles, textile products, leather and footwear (17 - 19), Manufacturing nec; Recycling (36 - 37), Wood and products of wood and cork (20), Pulp, paper, paper products, printing and publishing (21 - 22), Coke, refined petroleum products and nuclear fuel (23), Chemicals and chemical products (24), Rubber and plastics products (25), Other non-metallic mineral products (26), Basic metals and fabricated metal products (27 - 28), Machinery, nec (29), Transport equipment (34 - 35).

The depended variable is the natural logarithm of the product (*lnva*), namely, value added. The independent variables are set to be the labour (*lab*) and capital services (*cap*), along with time (*time*), denoting technical progress. Furthermore, the industry dummy variables for the 13 industries (*ind1 – ind13*), as well as the industry composite dummy variables (denoting industry – specific effects) are created.

<sup>7</sup> According to Battese and Coelli (1995), the explanatory variables can include intercept terms or any variables in both the frontier and the model for the inefficiency effects, provided the inefficiency effects are stochastic.

<sup>8</sup> Thus, in the special case of the classical linear regression model with normally distributed errors, the ML estimator for  $\beta$  is identical to the OLS estimator.

The first step towards the model estimation is to investigate the main descriptive statistics of the model variables. The following table presents the summary descriptive statistics for the variables included in the analysis. They are reported both in levels and logarithmic form, involving the mean value and the standard deviation, together with the minimum and maximum values. Furthermore, in order to have variables fairly normally distributed, we transform them in natural logarithmic form:

Table 1: **Descriptive Statistics**

Variable	Mean	Std.Dev.	Minimum	Maximum	Skewness	Kurtosis
VA	96.8802	22.1926	31.0257	249.572	1.1096	8.9395
CAP	96.5158	23.5106	24.2801	195.671	.3131	3.7954
LAB	105.821	18.5906	39.7332	282.608	2.2877	16.7120
LNVA	4.54751	.231436	3.43482	5.51975	-.5366	5.6231
LNCAP	4.53814	.258506	3.18966	5.27644	-.7284	4.5973
LNLAB	4.64818	.161889	3.68219	5.64406	.4507	8.1502
TIME	13.5000	7.50200	1.00000	26.0000	.0000	1.7955

Source: Own estimation

As it is indicated in the following table, skewness and kurtosis improves in case of variables logarithms, and the variables become more fairly normal, compared to actual levels. For this reason, we adopt this form in our model estimation<sup>9</sup>. Since the theoretical framework in this model is the flexible production function and the input transcendental logarithmic (translog) production function is used, we also include a group of environmental variables as explanatory variables to inefficiency effect. For this reason we include variables for R&D investments (*lnict*) and FDI investments (*lnopenk*).

In the first variation of our model, we employ the frontier translog model, which provides cross product for every input. Then, the production function is estimated as follows:

```

+-----+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Model estimated: Oct 19, 2010 at 08:18:53PM. |
| Dependent variable      LNVA  |
| Weighting variable      None  |
| Number of observations   1872  |
| Iterations completed    20    |
| Log likelihood function  794.8796 |
| Number of parameters     12    |
| Info. Criterion: AIC =   -83641 |
| Finite Sample: AIC =    -83632 |
| Info. Criterion: BIC =   -80093 |
    
```

<sup>9</sup> For skewness, the reference point is zero. If Skewness >0, the variable is positively skewed, if Skewness <0, the variable is negatively skewed and if Skewness = 0, the variable is symmetric implying normality. For Kurtosis, the reference point is three. If Kurtosis >3, the variable is leptokurtic, if Kurtosis < 3, the variable is platykurtic and if Kurtosis = 3, the variable is mesokurtic, implying normality.

```

| Info. Criterion:HQIC =      - .82334 |
| Variances: Sigma-squared(v)=  .02177 |
|   Sigma-squared(u)=  .00899 |
|   Sigma(v) =  .14756 |
|   Sigma(u) =  .09482 |
| Sigma = Sqr[(s^2(u)+s^2(v))]=  .17540 |
| Stochastic Production Frontier, e=v-u. |
+-----+
+-----+-----+-----+-----+-----+
| Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]| Mean of X|
+-----+-----+-----+-----+-----+
-----+Primary Index Equation for Model
Constant| 3.28162828  2.25483068  1.455 .1456
LNCAP | .42011085  .88350893  .476 .6344  4.53813827
LNLAB | -.63717410  .67808579  -.940 .3474  4.64818191
TIME | .01938327  .03100215  .625 .5318  13.5000000
LAB2 | .46742045  .17552027  2.663 .0077  10.8158946
CAP2 | .30860025  .14906058  2.070 .0384  10.3307444
TIME2 | .563873D-04  .00028131  .200 .8411  119.250000
LABCAP | -.28458786  .11847699  -2.402 .0163  21.0930324
LABTIME | .01653873  .00565703  2.924 .0035  62.3692144
CAPTIME | -.01821268  .00604676  -3.012 .0026  62.8256562
-----+Variance parameters for compound error
Lambda | .64255087  .06011426  10.689 .0000
Sigma | .17539911  .694965D-04  2523.854 .0000
Normal exit from iterations. Exit status=0.

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+-----+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates |
| Model estimated: Oct 19, 2010 at 08:18:53PM. |
| Dependent variable LNVA |
| Weighting variable None |
| Number of observations 1872 |
| Iterations completed 49 |
| Log likelihood function 1436.407 |
| Number of parameters 13 |
| Info. Criterion: AIC = -1.52073 |
| Finite Sample: AIC = -1.52063 |
| Info. Criterion: BIC = -1.48230 |
| Info. Criterion:HQIC = -1.50657 |
+-----+
| Frontier model estimated with PANEL data. |
| Estimation based on 72 individuals. |
| Variances: Sigma-squared(v)= .01092 |
|   Sigma-squared(u)= .54882 |
|   Sigma(v) = .10451 |
|   Sigma(u) = .74082 |
| Sigma = Sqr[(s^2(u)+s^2(v))]= .74816 |
| Stochastic Production Frontier, e=v-u. |
| Time varying u(i,t)=exp[eta*z(i,t)]*|U(i)| |

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+-----+
+-----+-----+-----+-----+-----+
|Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]| Mean of X|
+-----+-----+-----+-----+-----+
-----+Primary Index Equation for Model
Constant| -4.03898270   1.55219140  -2.602  .0093
LNCAP   | -.97653119    .74818037  -1.305  .1918  4.53813827
LNLAB   | 3.66065644    .39404899   9.290  .0000  4.64818191
TIME    | .08328425     .02662660   3.128  .0018  13.5000000
LAB2    | -.46613230    .16667973   -2.797  .0052  10.8158946
CAP2    | .49702581     .13277951   3.743  .0002  10.3307444
TIME2   | .00200186     .00018478  10.834  .0000  119.250000
LABCAP  | -.17750279    .15903976   -1.116  .2644  21.0930324
LABTIME | -.00849657    .00633361   -1.342  .1798  62.3692144
CAPTIME | -.01623160    .00373748   -4.343  .0000  62.8256562
-----+Variance parameters for compound error
Lambda  | 7.08884377    .02376608  298.276  .0000
Sigma(u)| .74082190     .07058009  10.496  .0000
-----+Coefficients in u(i,t)=[exp{eta*z(i,t)}]*|U(i)|
TIME    | -.14218051    .00446318  -31.856  .0000

```

The log – likelihood value shows that the translog function provides good fit and the estimated coefficients are statistically significant for the two equations. Most coefficients for the square of the variables and the interaction between variables for capital, labour and time are also significant. The positive sign of the parameter of  $t$  (time)  $\beta_t$  indicates the occurrence of technical progress. The coefficients  $\beta_t$  and  $\beta_{tt}$  indicate that the neutral part of technical progress has a positive effect over production. The signs of the coefficients  $\beta_{kt}$ ,  $\beta_{lt}$ , indicate that the non neutral part of technical progress moves inversely with capital and labor. With the time variable in the inefficiency term, we examine the development of productive efficiency at the industry level over time. The negative sign in the time trend as appears in the inefficiency term means that overall technical inefficiency tends to decrease<sup>10</sup>. The variance parameters  $\lambda$  and  $\sigma_u$  are statistically significant ( $z_{0.95} = 1.645$ ), consequently there is evidence of technical inefficiency in the data. The variance parameter,  $\gamma$ , is approximately 0.98. This implies that of the total variation captured by sigma squared, which is 0.55, 98% is as a result of the technical inefficiency in production processes while 2% could be attributed to other stochastic errors.

The analysis so far provides a solid background for further development of the model. Moreover, since any industrial sector may have in principle a different production function we add to the specification  $m-1$  intercept dummies for the industries aggregated. More specifically the model is extended in order to include industry specific effects (by employing industry composite dummies), so as to examine differences in efficiency level among different industries. For this reason, our model is estimated including the industry – specific composite dummies, as created above:

<sup>10</sup> If the time trend variable (in the inefficiency term) has positive sign, this indicates that overall technical inefficiency of production tends to increase through the investigation period.

$$Y_{it} = \alpha_0 + \sum_{j=1}^{m-1} \alpha_j * Ind_j + \beta_1 K_{it} + \beta_2 L_{it} + \beta_3 T_{it} + v_{it} - u_{it}$$

However, this solution is not completely satisfactory as industry production functions may also differ in input marginal productivities. We therefore estimate the model including the cross products of industry dummies, as well as the first input products with the industry dummies. So the model becomes:

$$Y_{it} = \alpha_0 + \sum_{j=1}^{m-1} \alpha_j * Ind_j + \sum_{j=1}^{m-1} \alpha_j * Ind * input + \beta_1 K_{it} + \beta_2 L_{it} + \beta_3 T_{it} + v_{it} - u_{it}$$

We multiply the first and the cross – products by the industry dummies. In order to allow for industry – specific effects in the computation of the output elasticity for inputs, we have provided for the industry dummies to interact with the first – order terms. Two goals, first to account for different industry production function (*ind1 – ind12*), and second to account for different marginal input productivities (cross – products with industry dummies). The *ind 1 – ind12* dummies actually enter the equation by multiplying *lnicap* to *time* by these variables and then entering these composite dummies to investigate whether factor inputs differ by industry.

Furthermore, one of the underlying objectives is to examine how environmental performance of the industries has an impact on the industry’s technical efficiency. It is therefore important to explore what happens to the estimated model in the presence of environmental performance dummy variables. In order to analyze the determinants of productive efficiency, we relate the estimated productive efficiency to a number of explanatory variables and this is achieved when environmental performance dummy variables are included in the estimation.

In the second variation of our model, we estimate the frontier model incorporating the industry dummies, as well as the industry - specific cross products, considering the variables: *time*, *lnict*, and *lnopenk* as explanatory variables in the inefficiency term. The results are as follows:

```

+-----+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Model estimated: Oct 19, 2010 at 08:44:38PM. |
| Dependent variable          LNVA          |
| Weighting variable          None          |
| Number of observations      1872         |
| Iterations completed        51          |
| Log likelihood function     1232.305     |
| Number of parameters        56          |
| Info. Criterion: AIC =      -1.25674     |
| Finite Sample: AIC =       -1.25486     |
| Info. Criterion: BIC =      -1.09117     |
| Info. Criterion:HQIC =      -1.19574     |
| Variances: Sigma-squared(v)=  .01485     |
|           Sigma-squared(u)=  .00203     |
|           Sigma(v) =         .12185     |
|           Sigma(u) =         .04508     |
| Sigma = Sqr[(s^2(u)+s^2(v))=  .12992     |
| Stochastic Production Frontier, e=v-u.     |
+-----+
+-----+-----+-----+-----+-----+
|Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]| Mean of X|
+-----+-----+-----+-----+-----+

```

-----+Primary Index Equation for Model

Constant	7.02174178	2.22129120	3.161	.0016	
LNCAP	-1.34009673	.92922186	-1.442	.1493	4.53813827
LNLAB	-.61199707	.65048273	-.941	.3468	4.64818191
TIME	.05767773	.03163546	1.823	.0683	13.5000000
LAB2	.22717346	.18026625	1.260	.2076	10.8158946
CAP2	.39416934	.16378555	2.407	.0161	10.3307444
TIME2	.00024649	.00030816	.800	.4238	119.250000
LABCAP	-.01195410	.14288671	-.084	.9333	21.0930324
LABTIME	.01441235	.00612067	2.355	.0185	62.3692144
CAPTIME	-.02357780	.00696787	-3.384	.0007	62.8256562
IND1	.06827861	.70112821	.097	.9224	.08333333
IND2	-.00854841	.87348411	-.010	.9922	.08333333
IND3	1.30032869	.76878122	1.691	.0908	.08333333
IND4	1.14884316	.66454416	1.729	.0839	.08333333
IND5	2.32491417	.67503438	3.444	.0006	.08333333
IND6	-.40020959	.71429035	-.560	.5753	.08333333
IND8	3.03308711	.88958623	3.410	.0007	.08333333
IND9	.45182615	.68055341	.664	.5067	.08333333
IND10	-1.43924366	.71047875	-2.026	.0428	.08333333
IND11	1.94980158	.83061011	2.347	.0189	.08333333
IND12	-.15680629	.67469238	-.232	.8162	.08333333
LNCAPD1	-.18197614	.09926767	-1.833	.0668	.37753423
LNLABD1	.08102814	.13681644	.592	.5537	.38837574
TIMED1	.02433507	.00497205	4.894	.0000	1.12500000
LNCAPD2	.14062968	.15170250	.927	.3539	.37617450
LNLABD2	-.08636481	.18743785	-.461	.6450	.38535840
TIMED2	-.01672118	.00477761	-3.500	.0005	1.12500000
LNCAPD3	-.18964072	.17201558	-1.102	.2703	.38133607
LNLABD3	-.04370419	.11145210	-.392	.6950	.38972613
TIMED3	-.01427754	.00491304	-2.906	.0037	1.12500000
LNCAPD4	-.71601742	.14565543	-4.916	.0000	.37960654
LNLABD4	.44548529	.14752013	3.020	.0025	.38383682
TIMED4	.00781208	.00501823	1.557	.1195	1.12500000
LNCAPD5	-.10503465	.12156690	-.864	.3876	.38112430
LNLABD5	-.41214729	.14440247	-2.854	.0043	.38450072
TIMED5	.00340520	.00493647	.690	.4903	1.12500000
LNCAPD6	-.04302893	.15454557	-.278	.7807	.37286709
LNLABD6	.14685071	.14850960	.989	.3227	.38400415
TIMED6	-.00498262	.00689431	-.723	.4699	1.12500000
LNCAPD8	-.42565425	.20707949	-2.056	.0398	.38079571
LNLABD8	-.30888845	.16277806	-1.898	.0577	.39087342
TIMED8	.01927578	.00615872	3.130	.0017	1.12500000
LNCAPD9	1.02264308	.15755189	6.491	.0000	.37480414
LNLABD9	-1.08294054	.15492009	-6.990	.0000	.38228242
TIMED9	-.01166021	.00573970	-2.032	.0422	1.12500000
LNCAPD10	.65261192	.13708638	4.761	.0000	.37896495

```

LNLABD10| -.27064458   .12565456  -2.154 .0312  .38765447
TIMED10 | -.02026252   .00472223  -4.291 .0000  1.12500000
LNCAPD11| -.23186703   .17088597  -1.357 .1748  .38435061
LNLABD11| -.16544564   .14577797  -1.135 .2564  .38898708
TIMED11 | -.00754820   .00451216  -1.673 .0944  1.12500000
LNCAPD12| .04739769    .17768815   .267 .7897  .38044290
LNLABD12| -.01653777   .15484815  -.107 .9149  .38900706
TIMED12 | -.00111351   .00607616  -.183 .8546  1.12500000
-----+Variance parameters for compound error
Lambda | .36999531    .07805863   4.740 .0000
Sigma  | .12992208    .507885D-04 2558.103 .0000

```

Maximum iterations reached. Exit iterations with status=1.

```

+-----+
| Limited Dependent Variable Model - FRONTIER |
| Maximum Likelihood Estimates                |
| Model estimated: Oct 19, 2010 at 08:44:40PM.|
| Dependent variable      LNVA  |
| Weighting variable      None  |
| Number of observations   1872  |
| Iterations completed     101  |
| Log likelihood function  1750.590 |
| Number of parameters     59  |
| Info. Criterion: AIC =   -1.80725 |
| Finite Sample: AIC =    -1.80517 |
| Info. Criterion: BIC =   -1.63281 |
| Info. Criterion:HQIC =   -1.74299 |
+-----+
| Frontier model estimated with PANEL data.  |
| Estimation based on 72 individuals.        |
| Variances: Sigma-squared(v)= .00772 |
|           Sigma-squared(u)= .26588 |
|           Sigma(v) = .08785 |
|           Sigma(u) = .51564 |
| Sigma = Sqr[(s^2(u)+s^2(v))]= .52307 |
| Stochastic Production Frontier, e=v-u.    |
| Time varying u(i,t)=exp[eta*z(i,t)]*|U(i)| |
+-----+
+-----+-----+-----+-----+-----+-----+
|Variable| Coefficient | Standard Error |b/St.Er.|P[|Z|>z]| Mean of X|
+-----+-----+-----+-----+-----+-----+
-----+Primary Index Equation for Model
Constant| .45441433   2.94469537   .154 .8774
LNCAP   | -1.33748386 1.04900522  -1.275 .2023 4.53813827
LNLAB   | 2.13285731  .95092610   2.243 .0249 4.64818191
TIME    | .07263348   .04370147   1.662 .0965 13.50000000
LAB2    | -.40723651  .28049365  -1.452 .1465 10.8158946
CAP2    | .16116725   .25690449   .627 .5304 10.3307444
TIME2   | .00145927   .00039676   3.678 .0002 119.250000
LABCAP  | .13909213   .21501007   .647 .5177 21.0930324

```

LABTIME	-.00455145	.00909159	-.501	.6166	62.3692144
CAPTIME	-.01154059	.00928612	-1.243	.2139	62.8256562
IND1	1.57583734	.58112328	2.712	.0067	.08333333
IND2	1.32512659	2.98725126	.444	.6573	.08333333
IND3	2.83071272	.82874729	3.416	.0006	.08333333
IND4	.49465958	.50809928	.974	.3303	.08333333
IND5	1.59542797	.76582952	2.083	.0372	.08333333
IND6	-.13907636	1.20339766	-.116	.9080	.08333333
IND8	2.57564026	.67154385	3.835	.0001	.08333333
IND9	-2.28003850	.56720111	-4.020	.0001	.08333333
IND10	-1.01448115	1.28969630	-.787	.4315	.08333333
IND11	1.12690788	1.54334471	.730	.4653	.08333333
IND12	-.96444734	.66315833	-1.454	.1459	.08333333
LNCAPD1	-.22660165	.10696720	-2.118	.0341	.37753423
LNLABD1	-.16216000	.10213608	-1.588	.1124	.38837574
TIMED1	.01780951	.00408154	4.363	.0000	1.12500000
LNCAPD2	.30982205	.42086217	.736	.4616	.37617450
LNLABD2	-.50030387	.29216734	-1.712	.0868	.38535840
TIMED2	-.02718752	.00497132	-5.469	.0000	1.12500000
LNCAPD3	-.27735974	.16967839	-1.635	.1021	.38133607
LNLABD3	-.24092501	.12002333	-2.007	.0447	.38972613
TIMED3	-.02483417	.00512044	-4.850	.0000	1.12500000
LNCAPD4	-.37461622	.12012417	-3.119	.0018	.37960654
LNLABD4	.28983615	.11656816	2.486	.0129	.38383682
TIMED4	-.00424147	.00251339	-1.688	.0915	1.12500000
LNCAPD5	.27259351	.16491038	1.653	.0983	.38112430
LNLABD5	-.55866899	.18895440	-2.957	.0031	.38450072
TIMED5	-.01497941	.00680408	-2.202	.0277	1.12500000
LNCAPD6	.33914809	.15977772	2.123	.0338	.37286709
LNLABD6	-.21649791	.16120480	-1.343	.1793	.38400415
TIMED6	-.02454541	.00430216	-5.705	.0000	1.12500000
LNCAPD8	.02036980	.11231483	.181	.8561	.38079571
LNLABD8	-.54171323	.12710930	-4.262	.0000	.39087342
TIMED8	-.00769337	.00411532	-1.869	.0616	1.12500000
LNCAPD9	1.81554761	.33149050	5.477	.0000	.37480414
LNLABD9	-1.14146862	.33201090	-3.438	.0006	.38228242
TIMED9	-.04904354	.01453160	-3.375	.0007	1.12500000
LNCAPD10	.65317416	.24918848	2.621	.0088	.37896495
LNLABD10	-.35915955	.09726216	-3.693	.0002	.38765447
TIMED10	-.02145655	.00269033	-7.975	.0000	1.12500000
LNCAPD11	.01594077	.30690414	.052	.9586	.38435061
LNLABD11	-.15502020	.13099982	-1.183	.2367	.38898708
TIMED11	-.02579371	.00547310	-4.713	.0000	1.12500000
LNCAPD12	.77598090	.15439667	5.026	.0000	.38044290
LNLABD12	-.48143068	.10957006	-4.394	.0000	.38900706
TIMED12	-.02537821	.00581158	-4.367	.0000	1.12500000

-----+Variance parameters for compound error

Lambda	5.86973315	.18726828	31.344	.0000
Sigma(u)	.51563566	.15900686	3.243	.0012
-----+Coefficients in $u(i,t)=[\exp\{\eta*z(i,t)\}]* U(i) $				
TIME	-.14533552	.01357178	-10.709	.0000
LNICT	.11377374	.07390746	1.539	.1237
LNOPEK	-.06677321	.32823973	-.203	.8388

The log – likelihood value (1750.590) shows that the translog function provides good fit. However, only a number of the estimated coefficients are statistically significant for the two equations. The variance parameters  $\lambda$  and  $\sigma_u$  are both statistically significant, then there is evidence of technical inefficiency in the data. The variance parameter,  $\gamma$ , is approximately 0.97. This implies that of the total variation captured by sigma squared, 97% is as a result of the technical inefficiency in production processes while 3% could be attributed to other stochastic errors. As far as the inefficiency effects are concerned, the negative signs in the time trend and the openness rate indicate that overall technical inefficiency tends to decrease with time (technical progress) and as long as the economy becomes more open. On the other hand, the explanatory variable *lnict* has a positive sign indicating that it increases the inefficiency level, one reason may be that ICT capital is used inefficiently. From the analysis, it is evident that industries in the sample are far from being efficient. There is evidence that industries could improve their technical efficiency by being more technical efficient which entails choosing inputs and use them efficiently. Even though there is a notable improvement in technical efficiency after accounting for variations, technical inefficiency remains significant which calls for further investigation of the variations regarding to the alternative explanatory variables.

## 5. Conclusions

The Commission calls upon Member States to make the structural reforms necessary to deliver the results required. In the context of the Lisbon strategy, the Commission has adapted its regulatory framework on State aids to enable Member States to develop new measures in favour of the support of innovation, taking into account the identified market failures of Europe in this domain. This should also encourage Member States and regions to redirect State support, for instance from structural funds, towards activities that are most directly correlated with the Lisbon agenda.

Small countries are likely to need a more comprehensive and oriented policy of co-operative innovative effort, in order to develop their future capabilities and to make the necessary choice for technological priorities. Looking first at scientific and technological output, the EU is still ahead of the US and Japan in its share of scientific publications, but lags behind in most of the other performance indicators, especially patents. There is, nonetheless, a substantial variation within the EU and certain EU Member States often score better than the US and Japan (most notably Sweden and Finland), yet the overall situation in the EU-27 is far from satisfactory. Although there are some noticeable encouraging tendencies in several acceding countries, one can expect that with the enlargement of the Union, the «European Paradox» will be, at least temporarily, further accentuated. In other words, in relation to its enlarged population, the EU-25's strong performance in science will contrast increasingly with its weaker development and commercialization of technology. The slowing down of EU-27 investment in the knowledge-based economy is likely to be reflected sooner or later in a significant decline in its performance. This trend underlines the urgency of implementing the Lisbon Strategy. In particular, the EU needs to increase its efforts, so as to give renewed impetus to the catching up of some countries with the rest of the EU-27 and to close the gap as soon as possible with the US.

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## The Agenda of Entrepreneurship and Innovation Activities in E.U.

### **Abstract:**

Entrepreneurship has been recognized as a micro driver of innovation, competitiveness and economic growth. Entrepreneurship in a Schumpeterian view is defined as an attitude of helping innovative ideas become reality by establishing new business models and at the same time replacing conventional business systems by making them obsolete. Terms like “innovation” and “innovation policy” are increasingly used (and sometimes misused) although their exact meanings are seldom dealt with. At the central level a clear tendency is to highlight entrepreneurship linked to innovation in business. Nowadays, more and more studies have been conducted on entrepreneurship, entrepreneurial orientation, and innovation process. Much evidence has shown that entrepreneurial orientations or activities always lead to superior business performance and economic growth in the developed countries. Entrepreneurship and small businesses have been acquiring a central role with respect to innovation, job creation and economic growth. Consequently, fostering entrepreneurship has become a priority for policy makers. This article reports a study about factors which increase entrepreneurship and innovation and furthermore suggests some policy guidelines in order to enhance entrepreneurship and competitiveness. On this context, it’s also aiming to emphasize and to review the appropriate measures, the most common methods and the particular problems.

**Key-words:** Entrepreneurship; Innovation; Competitiveness; Economic Growth; Cohesion.

**George M. Korres<sup>1</sup>, Charalambos Louca<sup>2</sup>, Maria Michailidis<sup>3</sup> and Efstratios Papanis<sup>4</sup>**

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<sup>1</sup> Corresponding-Address: Professor Dr. George M. Korres, [Visiting Professor at the University of Nicosia, School of Business, Nicosia, Cyprus and also Professor University of the Aegean, Department of Geography, Lesvos, Greece.](#) Email: [gkorres@geo.aegean.gr](mailto:gkorres@geo.aegean.gr)

<sup>2</sup> Corresponding-Address: Associate Professor Dr. Charalambos Louca, American College, Nicosia, Cyprus. Email: [charalambos.louca@ac.ac.cy](mailto:charalambos.louca@ac.ac.cy)

<sup>3</sup> Corresponding-Address: Professor Dr. Maria Michailidis, University of Nicosia, School of Business, Nicosia, Cyprus, Email: [michailidis.m@unic.ac.cy](mailto:michailidis.m@unic.ac.cy)

<sup>4</sup> Corresponding-Address: Assistant Professor Dr Efstratios Papanis, University of the Aegean, Department of Sociology, Lesvos, Greece. Email: [e.papanis@soc.aegean.gr](mailto:e.papanis@soc.aegean.gr); Email: [efstratios@papanis.me](mailto:efstratios@papanis.me)

## 1. Introduction

Entrepreneurship is a complex subject of study and its characteristics, dynamics, determinants and manifestations differ across countries. The overall level of economic development is an important contextual distinction for the research on entrepreneurship, as it can take very different forms. Entrepreneurship in a Schumpeterian view is defined as an attitude of helping innovative ideas become reality by establishing new business models and at the same time replacing conventional business systems by making them obsolete (“creative destruction”, Schumpeter). Schumpeter equated entrepreneurship with the concept of innovation applied to a business context:

‘The entrepreneur is the innovator who implements change within markets through the carrying out of new combinations. The carrying out of new combinations can take several forms;

- the introduction of a new good or quality thereof
- the introduction of a new method of production
- the opening of a new market
- the conquest of a new source of supply of new materials or parts
- the carrying out of the new organization of any industry.

The entrepreneurship research has identified a number of factors affecting the emergence and success of new enterprises. Many of these factors, at least indirectly, also relate to the attractiveness and image of entrepreneurship. Factors can be divided into personality and environmental characteristics. Personality factors presented in the literature include:

- risk-taking propensity to gain profits
- locus of control
- need for autonomy and independence
- initiative
- innovativeness and creativity
- self-confidence and self-determination
- tolerance for failure
- tolerance for ambiguity
- need for achievement
- previous employment, and
- ability to learn.

This article attempts to analyse factors which affecting entrepreneurship and innovation activities and furthermore to suggest some policy guidelines and measures in order to enhance competitiveness and economic growth. After that, it summarizes the main conclusions of the study and offers suggestions for further research.

## 2. Measuring Entrepreneurship and Innovation Activities

Entrepreneurship for empirical measurement is a difficult task and the degree of difficulty involved increases exponentially when cross-country comparisons are involved. There is a vast literature and many studies attempt to measure entrepreneurship, such as:

- Audretsch, Carree, van Stel and Thurik (2002) use a measure of business ownership rates to reflect the degree of entrepreneurial activity. This measure is defined as the number of business owners, in all sectors excluding agriculture, divided by the total labour force.

- Other measures of entrepreneurship focus more on change that corresponds to innovative activity for an industry. Such measures include indicators of R&TD activity, the numbers of patented inventions, and new product innovations introduced into the market (Audretsch, 1995).
- Similarly, other measures of entrepreneurial activity focus solely on the criterion of growth. Firms exhibiting exceptionally high growth over a prolonged duration are classified as gazelles. For example, Holmes et al (1990) measures the number of gazelles to reflect entrepreneurship. Such measures of entrepreneurship must also be qualified for their narrow focus not only on a single unit of observation – enterprises – but also on a single measure of change – growth.
- Lundstrom and Stevenson (2001) followed the precedent of the Global Entrepreneurship Monitor (GEM) study (Reynolds et al., 2000) by defining and measuring entrepreneurship as “mainly people in the pre-startup, startup and early phases of business” (Lundstrom and Stevenson, 2001, p. 19).

Technological change and innovation represent a different dimension of economic performance. Measures of technological change have typically involved one of the three major aspects of the innovative process:

- A measure of the inputs into the innovative process, such as R&D expenditures, or else the share of the labour force accounted for by employees involved in R&D activities;
- An intermediate output, such as the number of inventions which have been patented
- A direct measure of innovative output.
- Probably the best measure of innovative activity is the total innovation rate, which is defined as the total number of innovations per one thousand employees in each industry.

The EIS (European Innovation Scoreboard) measurement framework distinguishes between four main types of indicators and ten innovation dimensions, capturing in total 27 different indicators. *Framework conditions* capture the main drivers of innovation performance external to the firm and cover the following three innovation dimensions (EIS, 2019):

- Human resources,
- Attractive research systems, as well as Innovation-friendly environment.
- Investments capture public and private investment in research and
- Innovation

Innovation activities capture the innovation efforts at the level of the firm, grouped in three innovation dimensions:

- Innovators,
- Linkages, and
- Intellectual assets.

According to the European Innovation Scoreboard, which sets out to measure the degree to which economies of countries have the capacity and develop innovation activities, is structured in seven dimensions, giving a total of 29 indicators. The European Innovation Scoreboard (EIS) calculated with the 27 member countries of the European Union plus Croatia, Turkey, Iceland, Norway and Switzerland and sets out to classify these countries, measuring the degree to which economies of countries have the capacity and develop innovation activities. It is structured in 3 main blocks, which develop 7 different innovation dimensions for a total of 29 innovation indicators. According to this classification.

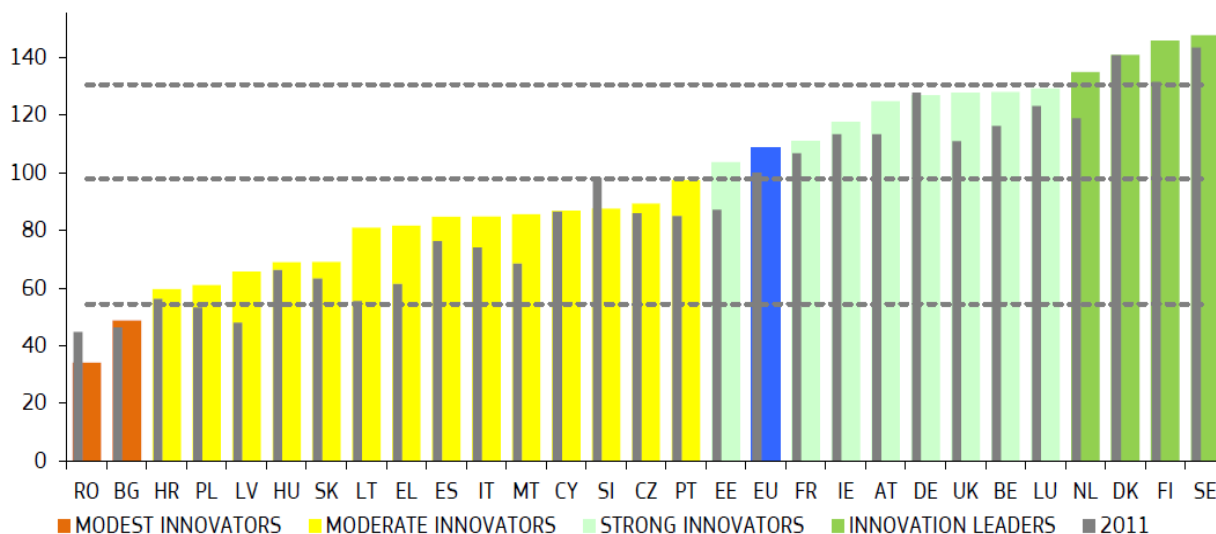
- The “Enablers” innovation block includes the dimensions “Human Resources” and “Finance and support” including 9 indicators.
- The “Firm Activities” block has 3 dimensions, “Firm investments”, “Linkages and Entrepreneurship” and “Throughputs”. It brings together 11 indicators.
- The “Outputs” block brings together the dimensions of “Innovators” and “Economic Effects” including 9 indicators.

For each one of the blocks and dimensions, as well as for the general scoreboard, a synthetic indicator is calculated whose value is between 0 and 1, using the same methodology for all European member states. Each indicator also uses the same reference year in all countries. The EU-27 countries, according to the rating achieved, can be grouped into the following categories.

- In the first group, *innovation leader countries* that includes 4 Member States where performance is above 120% of the EU average. The Innovation Leaders are Denmark, Finland, the Netherlands, and Sweden.
- The second group, *innovation followers*, includes 8 Member States with a performance between 90% and 120% of the EU average. Austria, Belgium, Estonia, France, Germany, Ireland, Luxembourg, and the United Kingdom are Strong Innovators;
- Next came the third group, *moderate innovators*, includes 14 Member States where performance is between 50% and 90% of the EU average. Croatia, Cyprus, Czechia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Slovakia, Slovenia, and Spain belong to this group;
- Finally, in the fourth group of Modest Innovators includes 2 Member States that show a performance level below 50% of the EU average. This group includes Bulgaria and Romania.

Tables 1 and 2 illustrate the performance of EU Member States’ innovation systems for 2011, and also for the period 2011-2017, respectively.

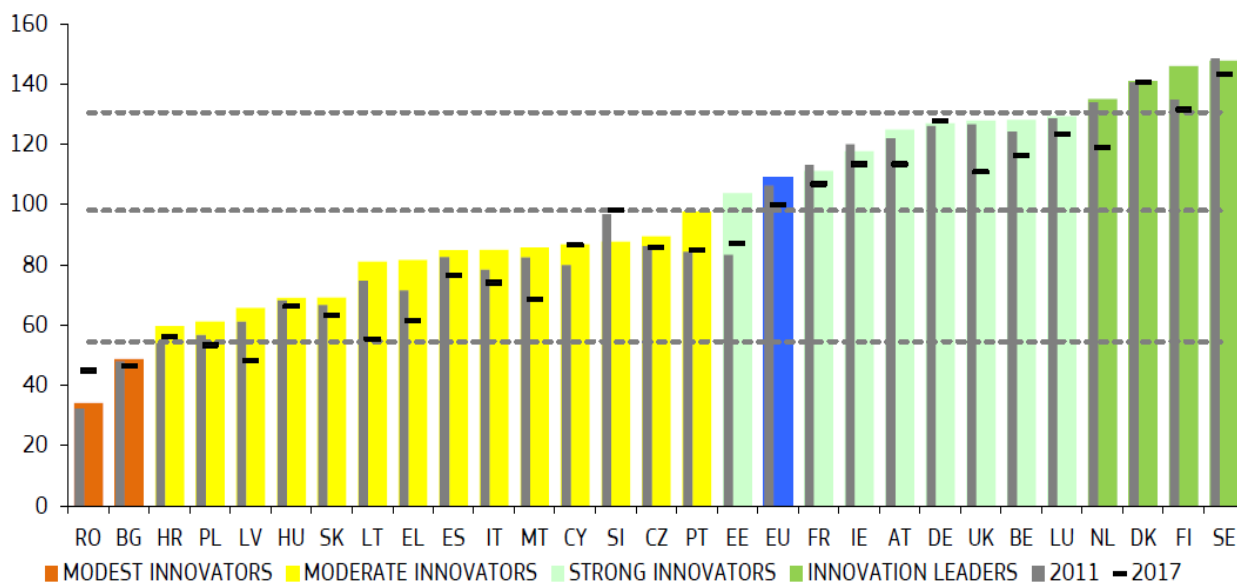
**Figure 1:** Performance of EU Member States' innovation systems



Source: EIS, 2019

**Note:** Coloured columns show Member States' performance in 2018, using the most recent data for 27 indicators, relative to that of the EU in 2011. Grey columns show Member States' performance in 2011 relative to that of the EU in 2011. For all years, the same measurement methodology has been used. The dashed lines show the threshold values between the performance groups in 2018, comparing Member States' performance in 2018 relative to that of the EU in 2018.

**Figure 2:** Performance of EU Member States' innovation systems



Source: EIS, 2019

**Note:** Coloured columns show Member States' performance in 2018, using the most recent data for 27 indicators, relative to that of the EU in 2011. The horizontal hyphens show performance in 2017, using the next most recent data for 27 indicators, relative to that of the EU in 2011. Grey columns show Member States' performance in 2011 relative to that of the EU in 2011. For all years, the same measurement methodology has been used. The dashed

lines show the threshold values between the performance groups in 2018, comparing Member States' performance in 2017 relative to that of the EU in 2018.

**Table 1:** European Innovation Index Scoreboard EIS 2019 and its indices of dimensions

Innovation Index	EU-28
2011	0.482
2012	0.478
2013	0.483
2014	0.482
2015	0.490
2016	0.503
2017	0.513
2018	0.525

Source: Eurostat, European Commission, 2019

For the EU, performance between 2011 and 2018 improved by 8.8 percentage points. Performance improved for 25 Member States and worsened for three Member States:

For seven Member States, performance improved by 15 percentage points or more: Lithuania (25.7%-points), Greece (20.2%-points), Latvia (17.7%-points), Malta (17.2%-points), United Kingdom (17.0%-points), Estonia (16.5%-points), and the Netherlands (16.1%-points);

- For five Member States, performance improved between 10 and 15 percentage points: Finland (14.3%-points), Portugal (12.6%-points), Belgium (11.7%), Austria (11.5%-points), and Italy (10.9%-points);

- For four Member States, performance improved between 5 and 10 percentage points: Spain (8.4%-points), Poland (7.8%-points), Luxembourg (6.0%-points), and Slovakia (5.8%-points);

- For nine Member States, performance improved between 0 and 5 percentage points: Sweden (4.3%-points), Ireland (4.2%-points), France (4.2%-points), Czechia (3.5%-points), Croatia (3.5%-points), Hungary (2.8%-points), Bulgaria (2.4%-points), Denmark (0.2%-points), and Cyprus (0.2%-points);

- For one Member State innovation performance declined by less than 5 percentage points: Germany (-0.9%-points);

- For two Member States, performance declined by more than 10 percentage points: Slovenia (-10.6%-points) and Romania (-10.7%-points).

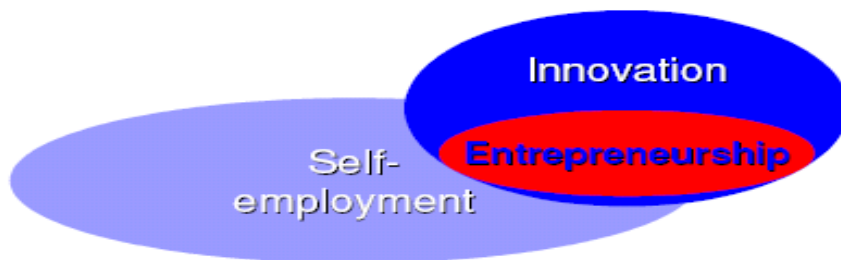
### 3. Towards on Entrepreneurial and Innovation Policies

Entrepreneurship has been recognized as a micro driver of innovation and economic growth (Wennekers and Thurik 1999; Audretsch and Thurik 2001b; Acs et al 1990; Audretsch et al. 2006). What is meant by entrepreneurship, innovation and economic growth is often not clear. Entrepreneurship and innovation are fuzzy concepts that have been given multiple meanings.

Innovation and entrepreneurship are often regarded as overlapping concepts. This can be traced back to probably the most well known definition of entrepreneurship, by Schumpeter, who defines entrepreneurs as individuals that carry out new combinations (such as innovations). Schumpeter distinguishes four roles in the process of innovation:

- Inventor, who invents a new idea.
- Entrepreneur who commercializes this new idea.
- Capitalist, who provides the financial resources to the entrepreneur (and bears the risk of the innovation project).
- Manager, who takes care of the routine day-to-day corporate management.

The field of entrepreneurship discipline is young and emerging (Colombo et al, 2001). The domain of entrepreneurship consists of innovation, traits, behaviors, and rates as shown on Figure 3. Starting with Schumpeter (1942) viewed the innovation as the heart or the central characteristic of entrepreneurial endeavors. According to Schumpeter entrepreneurial behaviors are the source of competition, not the market force of supply and demand. However, the essence of Schumpeter’s approach is that entrepreneurs are competitive and always strive to gain an behaviors of an entrepreneur including the process, function, and activity of new venture creation. Later, the rate approach grounded in the ecology of organization formation was introduced (Aldrich et al,1986).



**Figure 3:** The Domain of Entrepreneurship and Innovation

A government’s entrepreneurship policy is carried out against seven entrepreneurship policy framework sub-areas. The areas include:

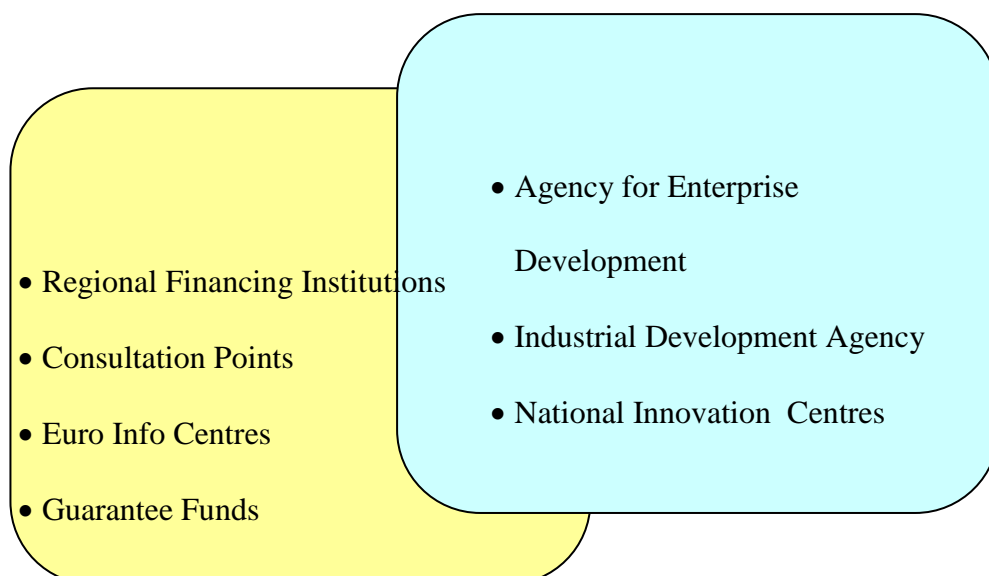
- Promotion of entrepreneurship
- Entrepreneurship education
- Barriers to entry, early-stage growth and exit
- Access to start-up and seed financing
- Business support for starters
- Target group approaches and
- Entrepreneurship research policies

**Table 2:** Enterprise Supports at Central Level

	Promotion	Education	Barriers	Financing	Support	Target groups	Research
Agency for Enterprise Development	x	x	x	x	x	x	x
Financing	x	x	x	x	x		

Institutions							
National Network of Innovations	x	x			x	x	x
Consultation Points	x						
Info Centres	x	x					
Lending and Guarantee funds			x	x	x		
Industrial and Technological Park	x				x		
Foundation for Promotion of Entrepreneurship	x	x					x
Innovation Centres	x	x			x		
“Incubator“ Foundation, Centre of Technology Transfer	x				x	x	x

Source: Our elaboration



**Figure 4:** Integration between Entrepreneurship and Innovation Policy

Figure 3 illustrates the main domains and the relationship between Innovation, Entrepreneurship and Self-Employment, Table 1 illustrates the public programmes and the policies to assist entrepreneurship activities. At the central level a clear tendency is to highlight entrepreneurship linked to innovation in business. It is in accordance with the assumptions of strategic development adopted in the European Union and reflected in Development Strategy 2010-2020. Figure 4 illustrates the integration between entrepreneurship and innovation policy at national level. Furthermore Table 3 illustrates the objectives of the European regional innovation strategy for the period 2010-2020 using three main pillars of economy based on knowledge, innovation culture and innovative management.

**Table 3:** Objectives of the European Regional Innovation Strategy 2010-2020

<b>Regional Innovation Strategy 2010-2020</b>		
<b>General Objective: Increase of innovation and competitiveness of the Regions</b>		
<b><u>Pillars:</u></b>		
I	II	III
<b>Economy Based on Knowledge</b>	<b>Innovation Culture</b>	<b>Innovative Management</b>
<u>Objective:</u> Transition of the regions into the region based on knowledge and the centre for innovation.	<u>Objective:</u> Improvement of intangible environment supporting innovations (culture, attitudes, norms and behaviour patterns, human capital) and the increase of the susceptibility of local authorities and society to innovations.	<u>Objective:</u> Higher efficiency and innovativeness in the development process support.
<b><u>Priorities:</u></b>		
<ul style="list-style-type: none"> <li>• Increased financial support, especially from the state, on R&amp;D</li> <li>• Enhancing regional R&amp;D potential and the effectiveness of the R&amp;D institutions.</li> <li>• Support to development of high technology industries</li> <li>• Transition of traditional industries into the more scientific-based</li> <li>• Development of information society and knowledge-based economy services</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of innovation and entrepreneurship</li> <li>• Education for innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Durable partnership</li> <li>• Anticipating the future</li> <li>• Effective mechanisms of implementation</li> </ul>

Source: [ec.europa.eu/regional\\_policy/conferences/od2006/doc](http://ec.europa.eu/regional_policy/conferences/od2006/doc)

The main policy domains should be focus at the following points in order to succeed and maximise the gains and minimise the losses:

Maximise Gains	<ul style="list-style-type: none"> <li>• Government policies toward reducing industry entry barriers will encourage entrepreneurship development by facilitating new entries by start-up firms and enhancing the competitiveness of incumbent firms.</li> <li>• Strong enforcement of antitrust regulations will encourage entrepreneurship development by encouraging competition, maximizing variance, and increasing upside gains for an industry.</li> <li>• Government deregulation policies will encourage entrepreneurship development by facilitating new entries by start-up firms and enhancing the competitiveness of incumbent firms.</li> </ul>
Downside Losses	<ul style="list-style-type: none"> <li>• Enacting and enforcing entrepreneur-friendly bankruptcy legislations, which ease the exit process for bankrupt business owners, will encourage entrepreneurship development by curtailing the downside risk of entrepreneurs.</li> <li>• Moving away from traditional industrial targeting and protection will encourage entrepreneurship development by curtailing the downside risk associated with failing firms and industries and enhancing the option value of the bundle of a country's entrepreneurial assets.</li> </ul>

#### 4. Policy Implications and Conclusions

Innovation and entrepreneurship have become synonymous in discussions on economic policy and they are seen as a panacea for economic growth in developed economies (such as the 2005 EU Lisbon strategy). Formulating and implementing policies that encourage innovation and entrepreneurship at the firm, regional and national level have become national priorities, Arvanitis (1997). However, difficulties in implementing these policies illustrate the complexity of the change process and its multilevel and multi-variable nature.

According to EIS (2019), performance in the *Innovators* dimension deviates from the overall classification into four performance groups. Portugal, a Moderate Innovator, is the overall best performing country. Three other Moderate Innovators perform above the EU average, which are Greece, Italy and Lithuania. Finland is the only Innovation Leader in the top-10, and Denmark performs below the EU average. For only 13 Member States, performance increased between 2011 and 2018. The highest rate of performance increase is observed in Lithuania (53.9%), followed by Finland (41.5%) and Greece (38.8%). For 15 Member States performance declined, in particular for Romania (-42.5%), Germany (-46.3%) and Cyprus (-59.4%). The EU average decreased by 9.2% between 2011 and 2018. Compared to 2017, performance has improved for 20 Member States, with the highest rate of performance increase for Estonia (69.6%), followed by Portugal (56.6%) and Finland (32.6%). Performance declined for eight Member States, with the strongest decline for Malta (-15.8), Slovenia (-17.6%) and Ireland (-24.6%). The EU average increased by 4.0% between 2017 and 2018.

In entrepreneurship policy at national and regional levels in small European member states attention should be paid to some important aspects:

- Excessive fiscal burden, especially high social insurance premiums, which forces many entrepreneurs into the “grey zone“.
- Excessive red-tape and inefficient public administration, which contribute to corruption and discourage many potential entrepreneurs from starting a business.
- Low transparency of entrepreneurship support system. Existing system is not well known to business community.
- Not efficient or not enough promoted public programs supporting entrepreneurship. Existing programs do not live up to the expectations.
- Despite moderately negative assessment of enterprise support policy of the government there is a clear change in the field. Still there is no real policy promoting entrepreneurship.
- Very low availability of capital to new or developing companies. Limited own resources are among main problems accompanied by low availability of loans and borrowings used for setting up a company. Thus there is a need to expand funds supporting start-ups and the application of new technologies.
- Weak leverage of educational system upon the enhancement of creativity, independence, own initiative and little promotion of practical material in teaching entrepreneurship.
- Lack of promotion of the ethos of an entrepreneur with independence, own initiative, creativity, readiness to take risk ranking high among values recognised by the society and giving social prestige.

Innovation policy in European member states is characterised with:

- Highly centralised policy with no regional dimension;
- Lack of proper coordination of actions by government agencies responsible for the shape of innovation policy
- Relatively low R&D expenditure and its inappropriate structure
- Poor cooperation of R&D units with industry, weak intermediary institutions;
- Slow rate of institutional reforms in public R&D sector, which could improve its quality and aptitude for the economies.
- Innovation policy oriented at generating innovations rather than their dissemination
- Low awareness of the role of innovations and entrepreneurship in economic development
- Domination of financial instruments in support to innovations over other solutions
- Focus on generating new solutions rather than on their implementation
- Lack of use of support instruments addressed to high-tech industries
- Insufficient development of educational programs which shape innovative attitudes.

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## **Educational Skills for Autistic People in Day Centers: Experiences and Observations of Volunteers – Philologists**

### **Abstract:**

This paper presents the ways in which philologists - volunteers understand Autistic Spectrum Disorders and their fundamental rights as part of their participation in educational skills in Day Center programs. Questions about the relationship of educational skills is also being examined with the Targeted, Individual, Structured, Inclusive Intervention Program of Special Educational Needs (TISIPfSENs). The survey is empirical and exploits the observation methodology according to the diachronic and modern pedagogical principles of Special Education and Training in 30 people from 7 to 22 years old with autism. The research tools consist of participatory observations that are marked in the form of calendars and are recorded with some record protocols as hetero-observation and self-observation over a period of 4 months. The data from the experiences and hetero-observations were studied according to the fundamental scientific thematic analysis. In the results it is noticed that the educational skills of People with Autism in Day Centers are developing are limited.

**Key-words:** TISIPfSENs, Autism, observation methodology

**Drossinou-Korea<sup>1</sup>, M., Kalamari<sup>2</sup>, A. and Bakoyanni<sup>3</sup>, M.**

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<sup>1</sup>Corresponding-Address: Assistant Professor of Special Education and Training, Faculty of Humanities and Cultural Studies, University of Peloponnese, Department of Philology, Address: East Centre – Old Camp, Kalamata, Area: Messinia, 24100, Greece Email: [drossinou@hotmail.com](mailto:drossinou@hotmail.com), drossinou@uop.gr

<sup>2</sup> Corresponding-Address: Philologist, University of Peloponnese, Faculty of Humanities and Cultural Studies, University of Peloponnese, Department of Philology, Address: East Centre – Old Camp, Kalamata, Area: Messinia, 24100, Greece Email: [artemis24195@gmail.com](mailto:artemis24195@gmail.com)

<sup>3</sup>Corresponding-Address: Philologist, University of Peloponnese, Faculty of Humanities and Cultural Studies, University of Peloponnese, Department of Philology, Address: East Centre – Old Camp, Kalamata, Area: Messinia, 24100, Greece Email: [maria.mpakogianni@hotmail.com](mailto:maria.mpakogianni@hotmail.com)

### **1. Introduction: Theoretical clarification of terminology**

In the theoretical part, we examine the terminologies in relation to Autism Spectrum Disorders (ASD) (Christakis, 2011, p. 191), the Targeted, Individual, Structured, Inclusive Intervention Program of Special Education and Training (TISIPfSENs), Educational Skills, Day Centers and Methodology for Observing Autism with Self and Hetero-observations (Christakis, 2011, pp. 213-227).

Autism Spectrum Disorders (ASD) are defined by studies on the issue of autism (Sinodinou, 1999, pp. 39-51), focus on the biological (Kalyva, 2005, pp. 319-344) of the base and concern the neurobiological, neurophysiological and in neuropsychiatric correlations (Drossinou-Korea, M, 2017, pp. 727-808). Autism is characterized as one of the most complicated and difficult (Grandin, 2009), neuropsychiatric developmental disorders and this displays a wide variety of clinical expression, resulting from multifactorial developmental disorders of the central nervous system (Synodinou, 1999, pp. 39-51). Since these malfunctions resulting serious disturbances in their behavior and in their development of social relations (Tordjman, 2019) and mutual interactions with other people, with whom live together, or in general with their social environment. People with neuropsychiatric disorders and autism, according to "Theory of mind", do not use intuitive understanding, such as "other" people who have the ability to predict human behavior by making use of thought and mental states (Drossinou-Korea, 2017, p. 735). Therefore, the triple of behavioral deficits (communication, creative imagination, socialization) which govern autism is the result of a lack of fundamental human competence in "mind reading" (Happe, 2003, pp. 81-131).

The TISIPfSENs as term refers to the educational model of special education. It is a pedagogical tool that is used to address the specific educational needs of children and young people through the diversified and structured intervention of teaching (Drossinou-Korea, 2017, pp. 320-342).

Educational skills are defined from individual pedagogical variations supported in a pedagogical way in booklets, shoeboxes, social stories with visual conceptual facilitators, music therapy, dramatherapy, dance therapy and alternative communication systems (CIPPA: Coordination Internationale de Psychothérapeutes, Psychanalystes et membres associés s'occupent de personnes Autistes, 2019, pp. 678-689). These are delineated according to the analytical curriculum, the principles of de-accreditation and repulsemment as outlined in the framework of the analytical program of Special Education (Ministry of National Education and Religions-Pedagogical Institute, 2009). They are accompanied by learning and pre-occupational readiness activities (Goodman & Williams, 2008, pp. 53-61) and they are provided at a individual and micro-team level according to the TISIPfSENs. They include diversified activities in relation to the skills in the kitchen, toilet, working table, leisure management, skills in engaging and care of animals and plants. They aim at the autonomous or semi-autonomous living of young people with autism and at the support of their psycho-emotional and social needs (Drossinou-Korea, 2017, pp. 731-777).

Day Centers of Children and teenagers with Autism act as daily care units and enhance the psychosocial rehabilitation of children, adolescents and young adults (8-22 years of age) with ASD as part of the private initiative (Day Center of Child and Adult with Autism of of Messinia, 2017). The services provided are Diagnosis, Personalized Therapeutic Rehabilitation based on the principles of TEACCH, ABA, PECS (Kalyva, 2005, pp. 163-188), Pediatric Psychiatric Monitoring, Family Counseling (Hellenic Association for

the Protection of Autistic Individuals, 2017), Speech Therapy, Occupational Therapy and Adjusted Physical Education (Drossinou-Korea, 2017, pp. 57-72).

Particular, the Treatment and Education of Autistic and Communication Handicapped Children (TEACCH) is reported to be an alternative educational program for children with autism and communication disorders. It integrates interventions in the environment, in the daily program and in the work object (Gonella, 2006). The use of images and other visual symbols (eg sleep time is delimited by the bed image (Drossinou-Korea, 2017, pp. 57-72).

The Applied Behavioral Analysis (ABA) refers to a structured behavioral analysis program with main objective of investigating the effectiveness of behavioral methods (Kalyva, 2005, pp. 29-125).

The Picture Exchange Communication System (PECS) is a communication program that allows children and adults with autism spectrum disorders and other communication disorders without functional or socially acceptable reason to start communicating. The therapeutic programs focus on socializing, communicating and improving the functionality and autonomy of the caretakers (Kalyva, 2005, pp. 133-161).

The observation methodology refers to our ability to collect information through the senses (e.g. vision, hearing, smell). This is distinguished in self-observation and hetero-observation. The self-observations focus on the thoughts, feelings, experiences, and pedagogical reflection of the philologists-volunteers (Drossinou, & Galani, 2016; Drossinou-Korea & Bakogianni, 2018). The hetero-observations focus on what an autistic person carries out in the transaction and in communicating with the philologist with a certain goal of Teaching intervention and the provision of evolving dynamic stimuli of learning readiness. In the hetero-observations focus on the words that the person with autism says spontaneously to himself, to the therapist, and generally to people.

While the self-observations focus on what the observer feels about the educational problem of autism, mentioning what she experiences in the emotional transaction with the child, what she hears from the child and what she thinks about the child, as well as teaching strategies and techniques which take place in the teaching practice (Drossinou-Korea, 2017, p. 735). The limitations of the observation methodology indicate that observations are recorded in behaviors rather than attitudes or beliefs. They can also be used to evaluate behaviors, conditions, physical characteristics and permanent behavioral factors. The observation is useful as a research method and can be used as accompanying or complementary tool of other research methods, such as the interview or the questionnaires (Avramidis & Kalyva, 2006, p.220)

## **2. Methodology**

The purpose of this study is to investigate the ability to achieve educational skills in young people with autism at Day Care Centers which promote social inclusion. In addition, the relationship between educational skills and the pedagogical tool Targeted Individual Structured Inclusive Intervention Program of Special Educational Needs (TISIPfSENs) and the way in which volunteers - philologists understand autism through Teaching interactions and methodology participatory observation. The reflection of the experiences and observations of the two volunteers - philologists, based on the data, attempts to answer questions about the concept of social inclusion and the relationship of educational skills with (TISIPfSENs). The research is empirical and explores the methodology of participatory observation of the two volunteers-philologists according to pedagogical principles of Special Education and Training in 30 people from 8 to 22 years old with

autism. In the methodology we have worked on the enquiring field of special education (Avramidis & Kalyva, 2006, pp. 44-60) and training (Drossinou-Korea, 2017, pp. 55-112).

### **2.1. Working hypotheses**

(1). If the attainment of educational skills in young people with Autism in Day Centers promotes social inclusion.

(2). If the attainment of educational skills is promoted through the use of the pedagogical tool "Targeted Individual Structured Inclusive Intervention Program of Special Education and Training (TISIPfSEnS) ".

### **2.2. Tools**

The research tools consist of participatory observations in the form of calendars and are recorded with some protocols of recordings as hetero-observations and self-observations over a period of 4 months (Avramidis & Kalyva, 2006, pp. 219-271). The data were studied in accordance with the fundamental scientific thematic analysis that focuses on some scientific themes such as volunteering and philologists. The data are based on educational skills in special education, participatory observations, social inclusion activities, Teaching interactions, levels of autonomy, targeted educational skills, structured Teaching diversified activities and levels of achievement.

#### **2.2.1. First research tool: Hetero-observations**

Hetero-observations refer to the frequency of Weekly Participatory Observations at Day Center on certain days of the week and with certain start and end time of observations. The hetero-observations of volunteers focus on the attainment or not of educational skills with activities of Social Inclusion. They record aliquot elements in terms of the Teaching Interactions (1), the Educational Skills (2) and the Autonomy Levels (3).

Social Inclusion Activities are conducted with the help of the volunteers-philologists inside and outside the Day Center. The programs are divided into internal and external. In internal, the participatory observations record the educational skills in individual or micro group level. The content of these internal social inclusion activities refers to puzzles, painting, series switching activities, tactical adjustment and desensitization, plasticine, music, self-employment, preparation of snack, meal, gymnastics, matching objects with cards, creative workshop, building with bricks, relaxation, execution of recipes, washing, setting and picking table, folding clothes, toys with the ball, learning PECS, fine - broad motility activities, activities of communication and social conciliation. The content of the external social inclusion activities refers to excursions and exits in the community.

The Teaching interactions marked with participatory observations in internal and external environments. The interiors are bounded by rooms with plastic, wooden pedagogical materials, puzzles, pictures of cards that represent activities of everyday life, human emotions, social stories, ergotherapy balls, gymnastics (treadmill, elliptical, bicycle, balls, exercise mat), board games, plasticine, clay, paints, brushes, scissors, glues, tapes, tablets, bricks, handmade paper, canvases.

The "Good morning" room is very important, which is also the gym. There is a plasticized green box with plastic cards representing the days, the months of the year and the year and a pink box, which contains laminated cards with dates. Below the green box there are laminated cards with seasons and weather. Next to the green box, in a yellow one, there are plasticized cards of therapists and people with ASD.

The external environments are demarcated in the local community and community stations like stadium, park, supermarket, cinema, cafes, museums, bowling and archaeological sites.

The educational skills are attained in most indoor activities and are recorded with the responsiveness to stimuli simple and complex commands such as completing a puzzle, learning time, communication with PECS, card identification with 3d objects, execution of recipes or of beverage with the sequence of visual steps, self-service activities (tooth brushing, dishwashing, table-clumping, supermarket shopping, trafficking, adherence to safety rules). A part of the educational skills extends to supermarket training with financial concurrency, product match of the supermarket with the quantity, according to the list, interactions with supermarket employees and product searching.

The skills focus on the financial transaction by decoding and understanding the concept of banknotes and coins with their economic value.

The autonomy levels of educational skills are defined with achievements marked with great help (1), with a lot of help (2), with help (3), with little help (4) without help (5). The scale from 1 to 5 indicates the potential of social inclusion of the person with autism through the achievements in the educational skills, which he acquires, consolidates or develops in Day Center. Observation time is set from 45 minutes to one hour depending on the duration of the program and the total time is 4 months (February - May).

### **2.2.2. Second research tool: Self-observations**

The self-observations refer to the frequency of Weekly Participatory Observations in Day Center on certain days of the week with a certain start and end time of observations and also in a later time, when the volunteer is thinking about why the particular person with autism failed to achieve the targeted educational skill that promotes the quality of his life in the community. The self-observations of volunteers focus on the achieving or not of the targeted educational skills in accordance with the TISIPfSENs, which they have been taught and applied from their undergraduate studies with an emphasis on Learning Preparedness Activities which promote Social Inclusion.

These self-observations record aliquot elements of thoughts, volunteers' feelings about targeted educational skills (1), structured-Teaching and diversified activities (2), levels of autonomy (3) and levels of achievement (4).

The targeted educational skills are formulated in accordance with the first, second and third stages of TISIPfSENs. The intervention plan is recorded voluntarily on the basis of systematic empirical observation (first phase), informal pedagogical assessment (second phase) and steps of fragmentation of the educational goal to achieve (third phase).

The objective content is defined by skills learned with learning preparedness activities in the area of emotional organization with emphasis on feelings, interest in learning and collaboration with others. The child expresses the image of himself, develops interests in his environment and cooperates with others. Emotions are linked to the person's need to develop social skills and functional interaction with others in his effort to integrate into his social environment. Interests keep the child in emotional alertness and the collaboration with others allows him to evaluate his actions, accept his failures and rejoice in his successes (Ministry of National Education and Religious Affairs - Pedagogical Institute, 2009).

The structured-teaching diversified activities focus on the achievements of social inclusion skills, which are not conducted with the volunteers but auxiliary within and outside the Day Center. The diversified activities programs, although they are divided into internal

and external are not structured in educational skills in an individual or micro group teaching intervention project. The self-observations notice what the person with autism might have been able to achieve if there was a project with appropriately well-educated and diversified tailored activities which are taking place in indoor and outdoor environments. The external environments are demarcated in the local community and community stations mentioned on the stadium, park, supermarket, cinema and cafes.

The self-observations in the autonomy levels of educational skills are defined with reflection on the achievements which are achieved with great help (1), with a lot of help (2), with help (3), with little help (4), without help (5). The enunciation of the comments refers to the follow-up of the Teaching interactions which are noted with the participatory observations in internal and external environments. The self-observations in the levels of achievement are determined by what this young person with autism can do without help or educational care of an adult educator in Day Center or even with the support of teaching of the volunteer-philologist.

### 2.3. The sample, the data and the course of the survey

The sample consists of 30 people with autism distributed in two Day Centers between 7-22 years old. The first center accommodates 15 people with an average age of 15 years, 8 boys with an average age of 13 years and 7 girls with an average age of 15 years. One of these had graduated or interrupted from special schools or from other special education structures. In addition, a person participates once a week in a speech therapy session and is also supported at home by a special pedagogue from the Day Center. In the second center there are 15 people with an average age of 17 years, 14 boys with an average age of 17-18 years and 1 girl 17 years old. Five of them, they had graduated or had interrupted from special schools or other special educational structures and one person attends part-time twice a week at both the morning and the afternoon program and at home, supported by the parents, an occupational therapist outside the center and a woman watching him.

It is highlighted that the volunteers-philologists move from group to group according to the needs of the Day Center in both internal and external programs.

**Table (1):** The sample of the study

N / A Day Centers- volunteers- philologists	Number of people with autism	Average age	Men	Average of men's age	Women	Average of women's age
1.afternoon: 17.00- 21.00	15	15	8	13	7	15
2.morning: 8.30- 14.30	15	17	14	17 - 18	1	17

**2.3.1.Hetero-observations of the first Volunteer-Philologist (1) -MARIA**

**Day Center Groups 1.** It operates from 17.00-21.00. Frequency of weekly observations at Day Center: three days from 3-4 hours, start and end times: February - May

*Educational skills - participatory observations through the activities (afternoon - evening) of Social integration of volunteers from the:*

1st group: 3 people date: 3 April, Afternoon, outside, Social Lodge: archaeological site

Teaching interactions	Educational skills	Autonomy levels
3 people with autism, a psychologist and a volunteer - philologist	One person took the initiative and started a discussion	One of them did it without help and one of the 2 managed to abide by the behavior rules without help

2nd group: 3 people, date: 20 May , Afternoon, indoor, gymnastics

Teaching interactions	Educational skills	Autonomy levels
3 people with ASD, a trainer, a volunteer - philologist	Bellicosity between 2 of the 3 people. One of the two people, after a reprimand, stopped giving importance to the provocative behavior of the other.	All 3 people continued their activities (corridor, bike, weights) without help.

3rd group: 2 people, date: 22 May, Afternoon, interior, speech therapy

Teaching interactions	Educational skills	Autonomy levels
2 people with ASD, a speech therapist , a volunteer - philologist	Learning PECS, social conciliation. After the successfully matching objects - cards, he requested the correct card.	One person can do without help, the other with little help

**2.3.2.Hetero-observations of the first Volunteer-Philologist (2) -ARTEMIS**

**Day Center Groups 2.** It operates from 8.30-14.30. Frequency of weekly observations at Day Center: two days from 6 hours, start and end times: February - May

*Educational skills - participatory observations through the activities (morning -elevense) of Social integration of volunteers from the:*

1st group 15 people: date: 2 April. Activities: Morning: Indoor-greetings: " good morning "

Teaching interactions	Educational skills	Autonomy levels
15 autistic people and three trainers (gymnast, speech therapist) and 2 volunteers and one assistant	The person with autism rises from his position, in a "P" layout order, and executes the command without help indicating, selecting and sticking the appropriate card-answer.	The 4 of the 15 people had reached without help. The rest have never been raised.

2nd team: 5 people date: May 14. Brunch: Indoor - snack

Teaching interactions	Educational skills	Autonomy levels
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5 people with 1 trainer (psychologist) and 1 volunteer philologist	The person with autism participates in the layout of the table (plates, forks or spoons) of the order (take, bring, give, etc)	3 of them had reached without help.
3rd group: 2 people, date: 2 people date: 19 February. Brunch – External transactions in the supermarket		
Teaching interactions	Educational skills	Autonomy levels
2 people with ASD with a special educator a woman who works as assistant staff and a volunteer - philologist	The person with autism has managed to get the product with the right brand and size with a little help.	Both people got the right products. One get the right product in brand, quantity and size with partial help. The other managed to get the right product in brand and size without help and with a lot of help in quantity
<b>2.3.3. Self- observations of the first Volunteer-Philologist (1) -MARIA</b>		
<b>Day Center Groups 1.</b> It operates from 17.00-21.00. Frequency of weekly observations at Day Center: three days from 3-4 hours, start and end times: February - May		
<i>Thoughts – feelings of the volunteers for:</i>		
1st group: 3 people, date: 3 April. Targeted Learning Skills: Start a conversation		
Structured-Teaching ally diversified activities	Autonomy levels	Achievement levels
Step 1. We sit down Step 2. The trainer begins the discussion Step 3. The autistic people continue the discussion	2 of them do it without help	In a group of two, three or four people, each one awaits the turn and says briefly, showing activity cards that they did the day before. They hear what they say and then they hear them.
2nd group: 3 people date: 20 May. Targeted Learning Skills: Follow the behavior rules		
Structured-Teaching ally diversified activities	Autonomy levels	Achievement levels
Step 1. They read their schedule Step 2. They go to gymnastics Step 3. They interrupt the program	1 of them without help	Creating behavioral rules in the form of a 'contract'. Agreement of common rules and painting them. Collage of images in the corresponding rules.
3rd group: 2 people date: 22 May. Targeted Learning Skills: Not be provocative		
Structured-Teaching ally diversified activities	Autonomy levels	Achievement levels
Step 1. He reads the program Step 2. They start the activities Step 3. He causes the speech therapist	1 of them without help	Visual rules in the form of social history.

**2.3.4. Self- observations of the second Volunteer-Philologist (2) -ARTEMIS**

Day Center Groups 2. Frequency of weekly observations at Day Center: two days from 6 hours from start and end time of observations: February - May

*Thoughts – feelings of the volunteers for:*

1st group: 15 people date: 2 April. Targeted Learning Skills: Learn to say the days of the week

Structured-Teaching ally diversified activities	Autonomy levels	Achievement levels
Step 1. Get up from my seat Step 2. I go to the program Step 3. I remember what day we have	4 of the 15 without help	He writes the name of the days on seven cards of different colors, puts them in a row and sticks them with velcro on a large cardboard making his own calendar for the week that the intervention lasts.

2nd group: 5 people date: May 14. Targeted Learning Skills: sets for the food table

Structured-Teaching ally diversified activities	Autonomy levels	Achievement levels
Step1. He places dishes, glasses and spoons on the table Step 2. He puts napkins and beverage Step 3. He sees the visual program	3 of them without help.	A photo of all people with autism participating in the group is placed and a visual program with black and white pictures of the steps, due to distraction.

3rd group: 2 people date: 19 February. Targeted Learning Skills: It matches product with brand

Structured-Teaching ally diversified activities	Autonomy levels	Achievement levels
Step 1. I see the list Step 2. I go to the right aisle Step 3. I choose the right brand	1 of the 2 without help	Photo of this product in a visual list.

The course of the study was conducted over four months with two weekly participatory observations of six hours each, 12 hours x 15 weeks = 180 hours in the Attica.

**2.4. The limitations of research**

Volunteers were not provided with medical history. Most guests received pharmaceutical antiepileptic and antipsychotic treatment with some different formulations (Kalyva, 2005, pp. 319-344).

**3. Results**

The results show that the hetero-observations make the understanding of autism and educational practice easier for philologists by using diversified pedagogical materials and educational tools. The self-observations set to the volunteers-philologists delimitation issues highlighting the pedagogical reflection and the need to use the pedagogical tool TISIPfSENs. Particularly:

### **3.1. Achieving educational skills for young people with autism at Day Care Centers partially promotes social inclusion.**

According to the First Day Center groups, the inclusion of people with ASD in them is based on their degree of functionality, skills, and cognitive level. The treatment programs last from 45 minutes to one hour, while the 'Social Club' is two hours. The maximum number of attendees included in a group session is three people with ASD, which does not always facilitate the educational process in cases where the individual one-to-one program should apply. The first team is composed of three people with ASD and constitutes an external program that lasts two hours in community spaces and activities. There is a trainer - psychologist and a volunteer - philologist.

The resulting problem focuses on the incomplete, non-existent initiative of some people with ASD to produce and develop debate and dialogue. This program aims to encourage and develop socialization and reconciliation between the people who are involved, but also in relation to the people of the community (Drossinou, & Galani, 2016; Drossinou-Korea & Bakogianni, 2018). However, it needs reflection and reassessment, since two of the three people do not get engaged in a dialogue or discussion, only at the instigation of the trainer-psychologist. The teacher has to promote positive behaviors and prevent negative ones by systematically managing the class (Christakis, 2011, pp. 47-48). In the second group there are three people with ASD, a trainer and a volunteer - philologist. Particular attention is paid to two out of three people, as they are in constant quarrel with intense provocation towards each other, which often stops the flow of the program, while one person with Asperger works independently. In order to avoid negative behaviors and to harmonize the educational process, there should be an organization of the space for the coexistence of individuals without causing stress and insecurity and the creation of a set of rules which constitute a good starting point (Christakis, 2011, pp. 48-51).

The third group includes two people with ASD, a speech therapist and a volunteer - philologist. One person works autonomously and is at a higher level of knowledge. The other has a tough speech, he does not know to read and write, and his behavior is quite challenging to the speech therapist, so he does not always complete the program. In order to balance the educational process, there should be visual behavioral rules in the form of social history, which should be explained at the beginning of each session. In addition, the priorities and necessary adjustments should be made, which refer to the learning environment, the program and the teaching strategies (Christakis, 2011, pp. 213-214). Consequently, acquiring educational skills in young people with autism at Day Care Centers promotes partially social inclusion, cut off by the use of the pedagogical tool (TISIPfSENs).

According to the Second Day Center groups, people with ASD are ranked in these groups not by their age but by virtue of their functionality and dynamics, ie whether they are medium or low in functionality. The groups include up to 5 people with ASD. The therapeutic program lasts 30-45, a period that does not lead to the promotion and attainment of their educational skills, but to the obsession in stereotypes, increased levels of anxiety and often self-traumatic and hetero-traumatic behaviors. The 1st group includes all individuals with ASD and takes place in the room 'GOOD MORNING'.

Typically, the number of people with autism is 12-15, with two or three instructors and 2 volunteers. Every time some people get up to show the date, the weather, the time, and to take snack orders. Of course, this choice by the trainers leaves no room for other people to increase their levels of autonomy, educational social skills, social communication and

conciliation. Instead, many remain seated in their place, strapped to the inner limits of their body by running turbines around themselves, jogging or being led to a "fff" state (fright, flight, fight) (Synodinou, 1999, 39-53). The 2<sup>nd</sup> team consists of 5 people with ASD with a trainer - psychologist and 1 volunteer. Three out of five people manage without help to squeeze, pick up the table and ask another person for a request to put water in the glass or to give them napkins, take initiatives and execute simple orders. For the remaining 2 individuals with ASD, there should be a realistic achievable short-term goal and its fragmentation into visual lesser learning steps with frequency, repetition and duration (Christakis, 2011, pp. 213-214), as they do not know reading and writing. The 3<sup>rd</sup> team consists of 2 people with ASD with a special educator, a woman who works as a support staff and a volunteer - philologist. The one autistic person has a very good visual memory that helps him identify product, brand and size by promoting the attainment of educational skills. However, it does not know the numbers and the meaning of the quantity. The other person with autism knows reading, correctly matches the quantity, but does not remember the brand and the size of the product. There could be photos of the product itself that function as visual conceptual facilitators, as learning ramps that facilitate the accessibility and accessibility of linguistic texts by people with autism. In conclusion, acquiring educational skills in young people with autism at Day Care Centers partially promotes social inclusion and semi-autonomous living in less than 1/3 of people with autism.

### **3.2. The achievement of educational skills is limited without the use of the pedagogical tool " Targeted, Individual, Structured, Inclusive Intervention Program of Special Education and Training (TISIPfSEnS)"**

The relationship of educational skills with the pedagogical tool TISIPfSEnS although it is obvious, but it is not in the case of Day Centers. The volunteers - philologists have tried to understand the autism routines without explaining the aim, the methodology, the way and the pedagogical materials and means of intervention. Thus, teaching interactions with participatory observation methodology led to reflection on educational skills in special education and training as well as the lifelong quality of people with autism coming to Day Centers. According to the experiences and observations of the volunteer of the afternoon Day Center, the concept of social inclusion has nothing to do with educational skills with the pedagogical tool (TISIPfSEnS). In particular, educational skills in internal and external programs remain limited in terms of social inclusion, as they do not follow and are not governed by the pedagogical tool (TISIPfSEnS), which promotes individualized, structured, inclusive targeting with the help of differentiated pedagogical materials and through systematic observation. In the light of the vague educational process that exists in the Day Center, people with autism remain stagnant and unchanged in their individual and social difficulties, often displaying new inappropriate behaviors, making it harder to carry out the study program.

According to the experiences and observations of the volunteer of the Day Center, the concept of social inclusion has nothing to do with educational skills with the pedagogical tool (TISIPfSEnS). In particular, there is not a clear and precise individual or micro-group of study and work program with realistic and achievable targeting, structure, methodology and pedagogical materials and educational means, both in the achievement of the educational skills in the internal environment and in the achievement in the external environment. There is often incomplete or absent informal pedagogical assessment, and there is no record of the capabilities, difficulties and real needs of people with ASD resulting new divergent behaviors,

stereotypes or obsessions. The programs work only with the demands, expectations of parents and trainers. Thus, all their design and implementation is based on experimentation, without the trainers themselves implying the concept of interdisciplinarity in approaching and managing the difficulties that arise from interaction with people with autism.

#### 4. Conclusions

Conclusions and extensions for further research reflect the need for lifelong informal special education and training related to the provision of specialist educational services to non-formal education structures such as private centers for special education, creative employment centers and home-based teaching (Drossinou, & Galani, 2016; Drossinou- Korea & Bakogianni, 2018).. Its role is decisive in the development of pre-vocational skills and the acquisition of autonomy or semi-autonomy.

As a prerequisite of this, it is necessary to use the pedagogical tool TISIPfSEns, as it helps the people with ASD to participate in the educational process by promoting their learning and social integration, their experiential and interactive expression in the space. It assures the understanding of the person with ASD for everything he does with himself and with others. This includes the planning of the person's transition from one activity to another to reduce his stress levels. Finally it contributes to the differentiated construction of the individual work system and the individual method of study is also oriented towards learning and pre-vocational readiness.

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## Emotionally Focused Therapy (EFT): A Love Society

### **Abstract:**

This study aims to present the Emotionally Focused Therapy model. The purpose of the study is to highlight the importance of the model for the creation of a love society. First, a brief reference is made to the concept of love, as it has been shaped by studies that have been conducted. Then, Bowlby's study of attachment of the person to the parental figure, usually the mother, is mentioned, as well as other studies on this subject. At the same time, the need for a healthy attachment is emphasized, as the subsequent relationships of the individual are strongly based on this. It follows the reference to the EFT model, its stages and the success it has, not only in improving interpersonal relationships but also in the family as a whole. There is emphasis on the effect of a secure bond between partners, both in bringing up children and in shaping people who are able to love and be loved.

**Keywords:** EFT model, love society, Bowlby, attachment theory, interpersonal relationships

**Davalouras Georgios<sup>1</sup> and Giotsa Artemis<sup>2</sup>**

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<sup>1</sup> Corresponding-Address: Davalouras Georgios, Primary Education Teacher, Postgraduate student in Social Neurosciences, Social Pedagogy and Education, National and Kapodistrian University of Athens. <sup>1</sup>Dalavouras Georgios, [131, Pericleous, 13231], Petroupoli, Athens, Greece. Email: [giorgosdalavouras@gmail.com](mailto:giorgosdalavouras@gmail.com)

<sup>2</sup> Corresponding-Address: Giotsa Artemis, Associate Professor of Social Psychology, University of Ioannina. Giotza Artemis, University of Ioannina, Pedagogical Department of Kindergarten, 45110 Ioannina. Email: [agiotsa@uoi.gr](mailto:agiotsa@uoi.gr), Email: [agiotsa@gmail.com](mailto:agiotsa@gmail.com)

### **1. The concept of love**

Love is "a combination of emotions, attitudes and behaviors that consist of intimate relationships" (Hogg & Vaughan, 2008). Love is a very popular topic in research (Dion & Dion, 1996), as it leads to emotional engagement with important others, such as parents, siblings, friends and comrades. These important others are the ones that offer us the emotional protection we need in our lives (Johnson, 2008). We know very well that there are two truths about human life. Firstly, the fact that people rely on each other to survive and secondly that each of us is a separate unit, which means that as long as we work or interdepend in a society, there will be personal interests or goals that will lead us to a conflict (Oatley & Jenkins, 1996).

In 1973, Rubin distinguished the notions of "sympathy" and "love", developing a scale of measurement of each concept separately. We can say that sympathy indicates a person's desire to connect and interact with a person, while love adds to the element of trust, which plays a major role in transcendental relationships (Hogg et al, 2008). In many societies, "love" is praised through literature, music, poetry, etc. In a few cases, however, love is presented as problematic, and this may be the case in general of emotions, manifestations of a feeling. The manifestation of a feeling is the answer to a sudden change in the environment in which a person lives. A feeling, whether positive or negative, helps us to focus our attention on specific goals in order to achieve and regain their regularity (Greenberg, 2004; Oatley et al, 1996).

Kemper, in 1990, speaking of emotions, argued that affection, love affects the co-operation and acceptance of the other, while power, aggression, is related to controlling the other despite his will (Oatley et al, 1996).

### **2. Attachment Theory: Mother-Child bond as the matrix of our future bonds**

The smooth and balanced development of a child depends largely on the processes of attachment and detachment (or psychological depulsion) of the parental model (Cosmopoulos, 2007: 76). Behaviorists believed that the inherent feature of attachment was hunger. This need is covered by breastfeeding and the normal serenity of the infant. One of the fathers of modern behavior, John B. Watson, argued that maternal love is very dangerous as it prevents children from becoming independent (Johnson, 2013; Cosmopoulos, 2007: 77). The first one to study extensively the attachment and detachment procedures was the English psychiatrist John Bowlby (Johnson, 2013; Cosmopoulos, 2007: 76).

In particular, Bowlby, working with disturbed young people at Child Guidance Clinics in London, argued that the problems of these youngsters were rooted in important relationships they had with people in their lives (Johnson, 2008). Later, after the end of the World War II, the World Health Organization asked Bowlby to conduct an investigation into children in which the war had deprived their parents and their home. His results confirmed his belief that love is as important as food. Bowlby concluded that keeping the faces you consider invaluable, meaning important others, is a great survival technique (Johnson, 2008; Johnson, 2013).

Bowlby, in his work *Mother Care and Mental Health* of 1951, referred to the power of love, the bond of mother and child, but also to the ties that are generally developed with persons in the immediate environment who deal with or care for him. Bowlby believed that since the time of his birth, man is determined to cling to his environment to survive. It is,

however, very important that this bond be maintained in time (Bowlby, 1982; Cosmopoulos, 2007: 76).

It is worth noting that Bowlby's theory was considered extreme and radical and, of course, was dismissed miserably. Until then, the view prevailed that parenting should have a rational and sterile distance. However, Bowlby continued his work and his attempt to show the world what he already knew (Johnson, 2008; Lehalle & Mellier, 2005; Johnson, 2013).

In surveys conducted by H. Harlow in the 30's it was found that a small animal, and by extension, the human being, is biologically more dependent than those associated with the "mother", such as physical contact, play, embrace, audio communication, etc. and less with the elements of a "food" that provides food to the child (Johnson, 2013; Cosmopoulos, 2007: 76). Specifically, in an experiment carried out with monkeys, the preference for the personal relationship and not for the food appeared. Two iron monkeys were placed in one room. One was cold and frozen but had the supply of food while the second was a skeleton with a coat but no food supply. The little monkey went to the first dummy to drink milk from the bottle but immediately returned to the warmth of the other dummy, which more closely resembled the mother's form (Cosmopoulos, 2007: 78). From this experiment we reasonably understand that "the form of the mother is a person and fact, a presence that gives the child psychological safety and warmth" (Cosmopoulos, 2007: 78).

In other studies, by R. Spitz, J. Bowlby and H. Harlow conducted in the 50s and 60s, it has been shown that personal relationships that develop during childhood and youth contribute significantly to the child's smooth emotional development. The relationship between mother and child is a model for all subsequent relationships of the individual (Hogg et al, 2008; Cosmopoulos, 2007: 77; Oatley et al, 1996). In this conclusion, Berscheid concluded in 1990, observing that the relationships we develop as adults rely heavily on attachment of the individual in infancy and youth (Hogg et al, 2008).

New research, of course, shows that it is necessary for the child not to cling only to a person, to that of the mother, but rather to many different ones, such as the father. Children grow up and grow well when they create many strong and close bonds (Cosmopoulos, 2007: 80; Lehalle et al, 2005). Under no circumstances, we could not forget the great work done by the mother, namely the impersonation of the person, the child with humanity and values, which give honor to the human being, as it is often the mother who takes over the child's upbringing, bringing the child into his / her future relationship with other people (Cosmopoulos, 2007: 82).

Very important was the Mary Ainsworth experiment, which was termed a "treaty with the stranger" or "an unusual situation" (Feldman, 2008; Jehalle et al, 2009: 66). In particular, in this experiment a mother and her child are in an unknown room. After a while the mother leaves the room, leaving the child alone with the researcher, who has the role of "foreign". The researcher, of course, is ready to console the child whenever necessary. Three minutes later the mother returns. Separation and reunion are repeated once more (Feldman, 2008; Jehalle et al, 2009; 67; Oatley et al, 1996).

This experiment showed that most children, when they lost their mother from their field of view, were upset, they were shaking and throwing their toys. However, there were cases of children who proved to be more emotionally capable. These children were quieting fastly, easily reattached with their mother, and very quickly continued to play with their toys. The research showed that children who were easily resting had warmer mothers responding, mothers of angry children had unpredictable behavior, while mothers of distant children were cold and rejected (Feldman, 2008; Jehalle et al, 2009: 67 - 68; Oatley et al., 1996).

Although the initial interest of the researchers was around the attachment of the child to the mother, it gradually expanded in general to the relationships a person develops throughout his or her life, whether as a child or as an adult. Man has an inherent need for social contact, connection and bonding (Bowlby, 1982; Hogg et al, 2008). "The urge of people to connect and interact with other people is called a need for affiliation" (Hogg et al, 2010: 632).

This need is so strong that it governs the way in which we shape our interpersonal and transgender relationships. Schachter, in his work "The Psychology of Attendance", argued that a person in social isolation can suffer from anxiety. This anxiety will gradually create the desire to find it among people, whether of its own or even unknown (Hogg et al, 2008).

Hazan and Shaver (1978), moving one step further than the Bowlby survey, studied both love and loneliness in adults. In their study, they noticed the existence of three different attachment textures. Specifically, they saw a secure, an avoidant and an insecure type. In the first type, secure, the person shows confidence in others while there is no worry about abandonment. Of course, there is a comfort in proximity and dependence on both the others and vice versa. Instead, in the type of avoidance the individual tries to suppress his attachment needs, rejects efforts for emotional proximity, has difficulty in trusting and thus not depends on those around him. Finally, in the insecure type there is anxiety that the people around will not be able to repay one's desire for intimacy. Among the individuals there is a feeling that the partner will not really be able to offer love or that he may wish to leave, to be departed (Hogg et al, 2008).

### **3. Emotionally Focused Therapy**

#### **(a). The basis of the model**

The EFT (Emotionally Focused Therapy) began by Dr. Johnson Sue and Les Greenberg. Dr. Johnson used the sessions of couples who had to develop more the model. Johnson quickly realized that, what two people can bring together, is a common enemy. So, she thought she could help couples see the negative motives of their actions as an enemy. The couples slowly realized that their dialogues, their conflicts, hurt both (Greenberg, 2006, Johnson, 2008).

These conflicts occurred when a member of the couple could not achieve a secure bond (Crawley & Grant, 2005; Johnson, 2008). People who have created a secure bond as a child with the infant face, appear to be more capable of feeling emotionally, showing confidence and the necessary care that their partner needs (Hogg et al, 2008).

When couples shared more mild feelings, they saw each other differently. Some emotional stimuli can change the bond between partners (Greenberg, 2004; Johnson, 2008). The EFT program after years of implementation has been successful, with more than 85% of couples receiving significant assistance. It is worth noting that the EFT program is aimed at both heterosexual and homosexual couples (Johnson, 2008).

The model is based on the emotional response of the comrades. In particular, the emotional response has three elements: Availability, Response and Commitment. By availability is meant how open an individual remains in his partner, even in doubt and insecurity. The partner is called upon to understand his feelings, to overcome his personal tendency to flee and to coordinate with his beloved connection needs (Greenberg, 2004; Johnson, 2008). Several times there will be problems, conflicts within a relationship, and individuals will choose the way to escape and move away from the problem. The success of

the model is based on both the physical and emotional presence of comrades (Johnson, 2008; Oatley et al, 1996).

The term response refers to emotional co-ordination with the partner, particularly with the needs and fears of the emotional bond (Greenberg, 2004; Johnson, 2008). As has already been mentioned, a basic, sexual need of man is that of social contact, acceptance by others (Hogg et al, 2008; Rohner, 1986; Khaleque & Cournoyer, 2012). The last element of the emotional response is the commitment, that is, the particular attention we give to a loved one, looking at it and touching it most. Often the comrades call it an "emotional presence" (Johnson, 2008). Just as the baby is clinging to the mother, in the same way in our later relationships, we want the special, unique contact with a separate person, our partner. This relationship is naturally based on mutual trust and love, developed within the bond (Hogg et al, 2008).

### **(b). The implementation of the model**

Comrades, quite often, are involved in conflicts (Johnson, 2008), but most of the time, they do not declare the real cause. These conflicts are called demonic dialogues and are divided into three motives: "Find the Bad Guy", "Protest Polka" and "Freeze and Flee". Each pattern has different features. But in all three, one is the common problem: emotional detachment. Comrades feel unacceptable, mutually accountable or passively defensively in the need of the other for contact, for connection, for care (Crawley et al, 2005; Gottman, 1997; Johnson, 2008). The sense of security that an emotional bond gives us is lost and the fear of loss of relationships is dominated (Crawley et al, 2005; Johnson, 2008; Rohner, 1986; Rohner et al, 2012). It has been observed that in Western culture women take on the role of prosecutors more often, as they are the ones who care more about the relationship. Men have been taught to repress their emotional responses and needs, resolving problems with leaving the relationship (Gottman, 1997; Johnson, 2008).

Many times, during a conflict, comrades are likely to touch a sensitive point, which is "a hypersensitivity of the person caused by moments that have passed in the past or present relationships, moments when an emotional need in the relationship has been repeatedly neglected, ignored or rejected. This usually results in emotional deprivation or abandonment" (Johnson, 2008). The source of these sensitive signs is probably traumatic relationships of the past that may have happened some months before or even years, but still retain their power up this day (Johnson, 2008), with people who were of great importance to us (Hogg et al., 2008), such as siblings, friends, ex-comrades, but especially parents, who are the basic models for our future sexual relationships (Johnson, 635; Johnson, 2008; Cosmopoulos, 2007; 77; Oatley et al., 1996).

People tend to protect these sensitive points by any means (Johnson, 2008: 117). An event touching such a sensitive point automatically makes the individual weaker against his partner. People want to avoid manifestation, reveal their weaknesses as they fear their exploitation by others. This, however, leads increasingly to the removal of the two comrades, the lack of confidence and often the final dissolution of the relationship (Johnson, 2008; Oatley et al, 1996).

However, in order to cope with such a situation, it is necessary for individuals to talk about these sensitive points and try to co-treat them with their partner (Crawley et al, 2005; Greenberg, 2004; Greenberg, 2006; Johnson, 2008). Research has shown that people who have grown up in a safe environment are more easily able to heal these points (Johnson, 2008). On the contrary, for people who have no secure ties, either as children or as adults, this

process is more time-consuming and, of course, more painful. This is easily explained by what we have already mentioned about the importance of attaching the individual to the mother and creating a secure relationship of trust and love with her (Hogg et al, 2008; Cosmopoulos, 2007: 77-78; Oatley et al, 1996).

In order to build and maintain a secure bond, one must be able to co-ordinate with his beloved person as loudly as in the first time of the relationship. Over time, we become less cautious, more compassionate, and sometimes we feel tired with our partner. Therefore, it is very important that the longing that we feel for a special person at the beginning of a relationship, the imaginary and temporary love can be preserved over time and transform into a lasting love and care for that person (Johnson, 2008; Johnson, 2013; Oatley et al., 1996).

In the context of model implementation, it is very important for comrades to talk openly about what they are afraid of (Johnson, 2008). Anger, fear and contempt are the feelings of competition and are directly involved, appearing during a conflict (Oatley et al, 2004: 451). The deepest fear in a bond in crisis is the very fear of dissolving the relationship (Hogg et al, 2008; Johnson, 2008). It is commonly accepted that a person can hurt a fellow man not only through anger, violence and aggression, but also through contempt (Gottman, 1997; Oatley et al, 2004: 475). The feeling that the loved one will be there whenever and wherever we need it, is a source of power and the principle of the response and the commitment (Johnson, 2008). Through the revelation of fears, individuals are led to reveal their primary needs, the need for emotional engagement, for contact (Hogg et al, 2008).

It has been noticed that unhappy comrades, 50% - 70%, attribute their difficulties in dealing with sexual problems. However, what really has happened is that the couple has lost his contact, there is no emotional safety and thus enjoy less satisfying sex. This leads gradually to less sex and more hurt feelings and thus to a looser emotional connection, until there is no longer a bond (Johnson, 2008).

It is worth noting here the importance of touch amongst comrades (Johnson, 2008). Darwin, as early as 1872, assumed that the hugging for the infant is a similar experience to that experienced by adults when they are taken care of by their partner. Later, Freud added to this idea that through love, the person returns to the first euphemistic union with his mother (Oatley et al, 1996). From this, it is perceived how important the first attachment of the infant to the mother is for his subsequent erotic relationships and the creation of secure bonds (Hogg et al, 2008; Oatsley et al, 2004: 445).

In order to maintain love among partners, it is necessary to create a strong and secure bond between them, based on mutual trust and acceptance (Hogg et al, 2008). Johnson (2014) proposes the creation of a "Strong Relationship History" that will teach the couple how to fall in love each time, over and over, as they did the first time (Oatley et al, 1996), while the couple must create and a "Future History of Love," which will show how the couple dreams to be his love in the future. It is also very important to have signaling rituals of separation and reconnection moments, such as hugs when they meet, love messages, and so on. (Johnson, 2008).

#### **4. The Power of Love**

The conflict within a bond hurts both comrades. The question that arises is why someone wants to hurt his partner, his loved one? Several times the manifestation of such behavior is imitation of parental patterns (Hogg et al, 2008). This also highlights the important role the EFT can play in generating wider circles of love throughout society. Conflicts between

couples as well as increased divorce are a cause of social concern. Several times, some forms of marital conflict have the same harmful consequences as a divorce (Gottman, 1997).

In particular, it is worth noting that conflicts between parents significantly affect the physical and mental health of children. Every child needs not only his two parents but also the sense of their successful marital relationship in order to grow up properly (Gottman, 1997; Cosmopoulos, 2007: 85). Therefore, a child who lives and grows in an environment of conflicts, quarrels, and disagreements is likely to experience a sense of disorganization, and the shock of the sense of security that has been caused may never be met (Cosmopoulos, 2007: 87). Initially, parental divorce was considered to be the responsibility of children's delinquency. However, now we know that the problems of externalizing adolescents and children, even adults, also arise in parental conflicts before divorce (Oatley et al, 1996).

It has also been observed that aggressive behavior among parents, hostile and negative emotions among adults can also be aggressive for the children themselves. Parents are exemplars for children, with the result that their negative emotional expression as a way of dealing with a problem is also the property of the children themselves in similar cases (Oatley et al, 1996; Gottman, 1997). There is a great correlation between marital relationships and the behavior of children with their friends. In particular, children whose parents felt they had an unhappy marriage, had difficulties in their social relationships as opposed to children whose parents had a happy marriage (Gottman, 1997).

Therefore, love between comrades contributes to the empowerment and healthy life of the whole family. For decades, we have known that happy families are based on happy relationships between comrades. Frequent conflicts lead comrades to become less consistent with their children in terms of care and guidance they need and may also be violent. This whole situation often causes emotional and behavioral problems in children, including depression, anxiety, introversion, removal, substance abuse, low school performance, delinquent behavior, and so on. (Gottman, 1997; Johnson, 2008). It is remarkable that men, who are removed from their spouses, are also inaccessible to their children. In a survey by Zill (1981), 65% of young people with separated parents reported only a small relationship with fathers, as opposed to 9% of children whose parents had not separated. At similar rates, of course, the relationship between children and mothers is also observed. Approximately 30% of children with divorced parents reported rather poor relationships with mothers, compared to 16% of children of undivided parents (Gottman, 1997).

It has been found for many years that people develop relationships amongst themselves, not only with their beloved people, but also with friends of their friends, co-workers, and so on. These social networks that are formed can be said to look like a dense forest. Of course, a social network can have both positive and negative effects. People who show love to their comrades, their parents, their friends, their partners, can create wider circles of love, beyond their own personal circle (Christakis & Fowler, 2009). Therefore, the best relationships between sex partners are not just a personal preference, but also a social offer, as Christakis & Fowler (2009) says. Families with more love mean societies that can better correspond the needs of their members (Johnson, 2008).

To summarize, we would say that the Emotional Focused Therapy (EFT) model can be applied not only to couples but also to families, social relationships and any other human subsystem (school, professional space), enhancing interpersonal relationships for the purpose of mental resilience of individuals.

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## **Investigation of the Beliefs of the Visually Impaired of the Cretan Regional Association of the Blind on how much Digital Technology Affects their Educational, Social and Professional Development**

### **Abstract:**

This essay presents a research study carried out in the Region of Crete, investigating the beliefs of the blind people of the Cretan Regional Association of the Blind on the effect of New Technologies on their education and socialization as well as their career establishment and development.

Before presenting the results of the research study, a brief bibliographical review is made with references to preexisting similar researches conducted in Greece as well as internationally.

Following that, the methodology and data analysis of this research and its results are demonstrated.

Closing, the conclusions are presented with reservations on the part of the researcher.

**Key-words:** Digital Technology, Visual Impairment

**Sfakianaki Kalliopi<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: **Sfakianaki Kalliopi** Greek Language Philologist- Special Education Teacher. Email: [SfakianakiKalliopi@yahoo.gr](mailto:SfakianakiKalliopi@yahoo.gr)

## 1. Introduction

The modern world is constantly being deluged by new developments and facts about digital technologies. Inevitably, these technologies enter people's daily life, affecting every aspect of it. The degree and manner each person is affected vary depending on the needs every individual wishes and seeks to cover.

This research studies the beliefs of the blind regarding to what degree they think that their educational, social and career development is being affected by new technologies.

The researcher deemed that investigating these beliefs will be notably significant so as to highlight whether new technologies affect three of the most fundamental factors of blind people's daily lives, their education and social course as well as their career course.

Additionally, it was determined that Greece is lacking in researches covering all three daily life aspects of the visually impaired, which are also affected by developing technologies. In the Region of Crete especially, where the sample of this study is derived from, researches of related topics are not common. Therefore, necessity is one of the primary criteria regarding the choice to investigate this issue.

The researcher will examine three research questions which will be the axes of the subsequent research approach.

Specifically:

- 1) To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their education?
- 2) To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their socialization?
- 3) To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their career establishment?

## 2. Bibliographical Review and Theoretical Framework

As mentioned above, there has been observed a lack of researches focusing on the study of the effect that digital technology has on the education, socialization and career of the visually impaired combined.

Several researches have been conducted focusing on the career course of the visually impaired and their beliefs regarding new technologies. Specifically, a research by Crudden and McBroom (1999) using a sample of visually impaired employees showed that 7% of the participants worked from home. In relation to the most significant obstacles these people face in their employment, the participants replied reading texts, lack of assistive technology equipment and their adjustment to the work environment, limited career opportunities due to their disability, lack of knowledge of Windows or using a computer etc.

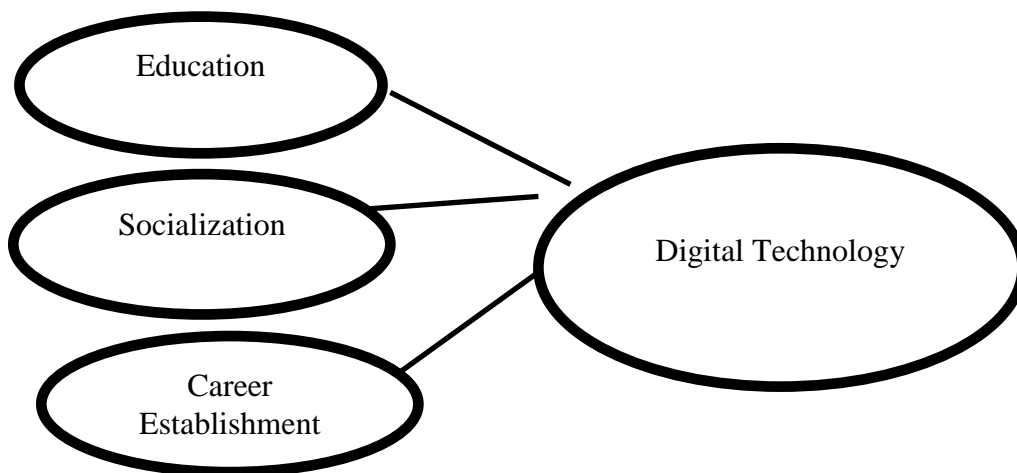
A research of the Athens University Psychology department (Giannitsas, 2000) shows that the visually impaired think they will face difficulties in their interpersonal relations, at work and with their colleagues. Moreover, 62.5% of the research participants think that the employers are biased against the work quality of the visually impaired, while 37.5% think they are not.

An interesting aspect is given in the research by Zisopoulou (2007, Aegean University) which among others examines the blind people's ability to easily acquire assistive technology. In conclusion, in the research it is evident that the respondents have to do much research before they can purchase assistive technology due to lack of information in the

monopolistic market and the high cost. These data correspond to the preexisting research by Stefanidis (2004).

A rather recent research which covers all three aspects that this research also tries to cover, took place in Australia in 2013 by Howard Eric Middleton for the Aid for the Blind Society Queensland. The research topic was: *Technology, Learning and Working: Blind and Vision-Impaired People's use of Technology*. Some of the research findings accentuated the need to re-focus on the importance of Braille. There is a tendency to view other assistive technologies as Braille replacements instead of being complementary. Furthermore, another significant finding was the need for more powerful programs that will develop communication and the social and organizational skills of blind people. Lastly, the research demonstrated that there is still great lack of understanding how the visually impaired are educated and work and how technology can assist in their education and work.

### 3. Graphic Presentation of Concepts / Variables



**Graph 1:** Factors in which digital technology affects visually impaired people

The variable concept in the research is the beliefs of the blind people. The research questions are descriptive. The research will determine whether the visually impaired people think that digital technology affects three factors of their lives (education, socialization, career establishment), which are reflected in the three research questions.

### 3. Methodology

The researcher chose the quantitative method to conduct the research and exclusively uses a questionnaire as a means to collect data. To analyze the data, descriptive statistical analysis is being used (percentages, mean values, standard deviation).

Analytically, the researcher chooses to study the population group of blind people. In Greece, no frequent census of blind individuals by the Ministry of Health has been observed. Some old studies (Giannitsas, 2000) have shown that the number of blind people is about 22,000. 500 of those are individuals under the age of 18.

The sample of this research was derived from the Cretan Regional Association of the Blind. The researcher initially contacted the President of the Association, Mr Panagiotis

Grammenidis and was given his consent to access the phone numbers of the Association's active members.

Wishing to contact the blind people directly and be able to give necessary clarifications, the researcher then personally called each Association member and collected her data using the questionnaire she had prepared.

The President of the Association, Mr Grammenidis, informed the researcher with reservations about some approximate censuses in the Region of Crete regarding the population of blind people. Specifically, according to most recent data, the blind people in the Prefecture of Heraklion are about 850, in the Prefecture of Rethymno 470, in the Prefecture of Lasithi 450 and in the Prefecture of Chania 550.

The research participants were chosen using purposeful/convenience sampling. The reason for this is time pressure which makes the use of another sampling process harder. In total, the sample consists of 40 blind people of the Cretan Regional Association of the Blind.

The questionnaire consists of four parts of closed-ended questions. Part A involves questions and statements about the respondents' profiles (demographics). Part B comprises questions and statements on the beliefs of blind people regarding assistive technology and education. Part C is made of questions and statements on the beliefs of blind people regarding assistive technology and socialization. Part D consists of questions and statements on the beliefs of blind people regarding assistive technology and career establishment. In Part A the nominal scale is being used, whereas in the other parts the ordinal scale and specifically the Likert scale. In conclusion, Part A obtains demographics whereas the other three parts focus on the three research questions respectively.

To make the questionnaire, the text book: Papanastasiou, E. & Papanastasiou, K. (2016), *Educational Research Methodology*, 3<sup>rd</sup> edition, Nicosia, was used, as well as a combination of questions from the dissertation of Zisopoulou (2007) on the topic of "Use of New Technologies by Blind Users in their Work Environment".

There was no time to pilot the questionnaire to make use of this possibility and to evaluate the questionnaire as best as possible in terms of its ability to respond to the research needs. However, the researcher, keeping validity in mind, tried to align the questionnaire with her research questions. Likewise, regarding credibility, she attempted to provide a clear questionnaire with sufficient time to allow similar results to be achieved if the investigation is resumed under comparable circumstances.

#### 4. Data Analysis

Demographics:

##### 1. Gender 40 responses



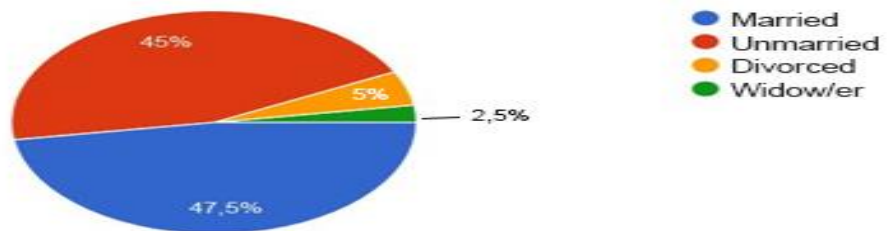
## 2. Age

40 responses



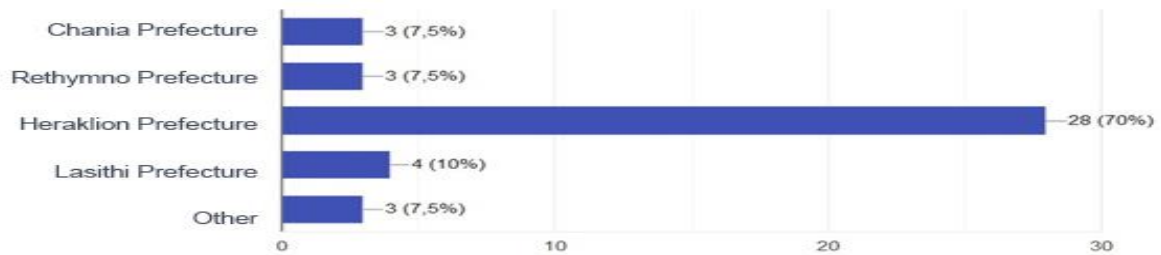
## 3. Marital status

40 responses



## 4. Place of Residence

40 responses



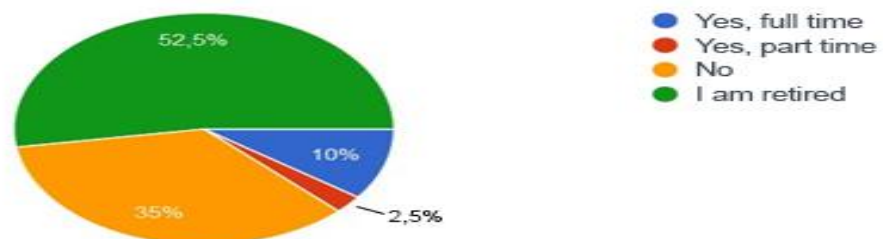
## 5. Education

40 responses



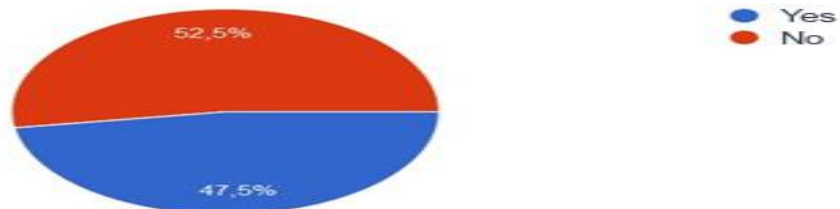
## 6. Are you employed?

40 responses



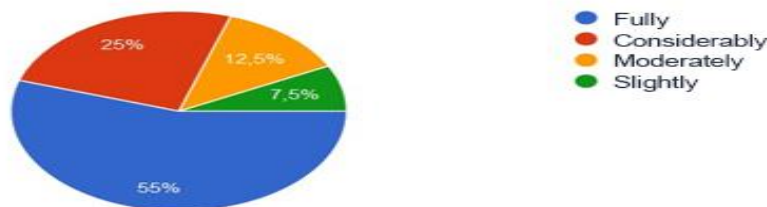
### 7. Were you visually impaired at birth?

40 responses



### 8. To what degree does your disability affect your reading ability?

40 responses



### 9. Do you know how to use the Braille system of reading and writing?

40 responses



From gathering the demographics of the research sample, it is worth mentioning that the largest percentage of the respondents (42.5%) do not know at all how to use the Braille system of reading and writing.

Advancing to the research questions, the descriptive statistical analysis of the respondents' statements was mainly based on the Likert scale, which was a five point scale: 1=Strongly agree, 2=Agree, 3=Neither agree nor disagree, 4=Disagree, 5=Strongly disagree. As functional definition, the researcher sets the mean value 2 in 5 of the Likert scale as positive response of the blind people's beliefs regarding the effect of digital technology on their educational, social and career development respectively.

Before the tables with the statements are presented, an overview of the sample's responses to the research questions will be given, based on the introductory questions asked by the researcher to the participants before making the specific statements:

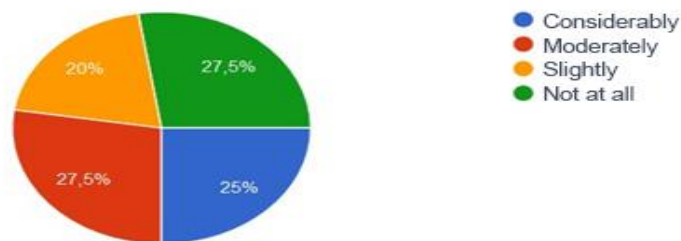
1. To what degree do you think that digital technology affects your education?

40 responses



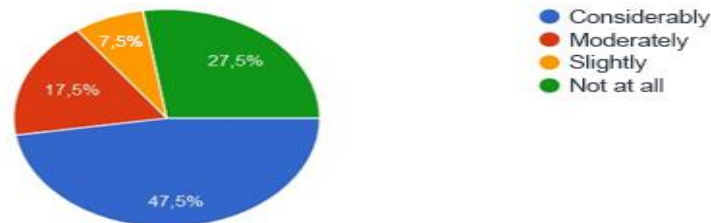
1. To what degree do you think that digital technology affects your socialization?

40 responses



1. To what degree do you think that digital technology affects your career establishment?

40 responses



The tables that the researcher based on the statistical results of the statements are as follows: About the first research question: To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their education?

Statements	Mean value	Standard deviation
Digital technology has had a positive effect on my education.	2,38	1,39
The education system provides blind people with satisfactory access to new technologies.	2,88	1,38
There is sufficient information in schools and universities about the possibilities offered by digital technology to blind people.	3,28	1,40
Digital technology is essential to my education.	1,50	1,05

Table 1

From Table 1 it results that the sample remains neutral concerning digital technology's effect on them. Moreover, they are evidently displeased about the education system, which does not provide adequate assistive technology equipment or sufficient information. Lastly, the sample indicates a positive tendency regarding the necessity of digital technology in their education.

About the second research question: To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their socialization?

Statements	Mean value	Standard deviation
The assistive technologies that allow access to information and entertainment contribute to reducing my social exclusion.	2,13	1,25
Digital technology can ensure blind people's participation in the country's social, political and financial life.	1,43	0,80
Using new technologies in increasingly more sectors of modern life adds to blind people's marginalization.	3,18	1,73
Digital technology is essential for my integration into society.	1,95	1,26

**Table 2**

In Table 2 the results seem to be divided; in the second and fourth statements the sample tends to be positive towards digital technology, whereas in the first and third statements they tend to be negative, considering that new technologies may keep them alienated.

About the third research question: To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their career establishment?

Statements	Mean value	Standard deviation
Digital technology helps the vocational training of blind people.	1,30	0,64
Digital technology is essential to my work.	1,73	1,05
My workplace is equipped with assistive technologies for visually impaired users.	2,83	1,18
Thanks to digital technology I have acquired equal opportunities for my career establishment and development.	2,38	1,37

**Table 3**

In Table 3 the results regarding digital technology's effect on career establishment show a positive tendency, and at the same time stress the inadequacy of assistive technology in the workplace.

## 5. Results and Conclusions

Based on the research results, a large part of the sample do not seem to be affected either in a positive or a negative manner by new technologies in relation to their educational course. Furthermore, the poor information on new technologies and learning them provided by the education system to blind people is demonstrated.

On the matter of socialization, several people of the sample consider digital media as non-essential to their socialization. On career establishment, the blind people's beliefs converge towards the positive effect of digital technology in this direction. Yet they mention that their workplace still needs several additions of assistive technology.

Due to the very small sample used in the research, it is hard for the researcher to reach safe conclusions. However, an indicative initial reading of the results will be attempted.

From the results it is evident that blind people in the Region of Crete are quite hesitant to change their habits, and the state, lacking adequate information, intensifies this climate of refusal. It is typical that 42.5%, as mentioned above, do not know how to use the Braille system of reading and writing. Moreover, only 30% have received higher education.

As mentioned in the research by Zisopoulou (2007) blind people refer to high cost of assistive technology, which adds to the deterrence of using new technologies as demonstrated by this research. Lastly, as in the research by Crudden and McBroom (1999) despite taking place several years ago, it is observed like in this report that the sample of those scientists had also mentioned lack of suitable assistive technology in the workplace as well as lack of knowledge of computers on the part of blind people.

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### Appendix (Questionnaire)

#### Accompanying Letter

Dear Sirs/Madams,

I am a graduate student at the University of Nicosia, Cyprus, in the School of Educational Sciences, and more specifically, in the Distance Learning Masters Degree “Special Education”. Within the course of “Educational Research”, I will conduct a survey on the beliefs of the blind people of the Cretan Regional Association of the Blind regarding the influence of New Technologies in their educational, social and professional development.

The survey will be conducted exclusively using a questionnaire and its completion time is expected to be about 15 minutes. The questionnaire is anonymous in order to protect your personal information. Your replies are for research use only.

Your participation will facilitate the conduct of the survey, and honest and careful completion of the questionnaire will help in valid and reliable conclusions.

The desired sample in the survey is 40 visually impaired people.

Thank you very much for your contribution.

For any communication regarding the course of the survey please contact the following e-mail: SfakianakiKalliopi@yahoo.gr

Yours sincerely,

Sfakianaki Kalliopi.

(Graduate student at the University of Nicosia)

#### Questionnaire

**Research Topic:** Investigation of the beliefs of the visually impaired of the Cretan Regional Association of the Blind on how much digital technology affects their educational, social and professional development.

#### **Research Questions:**

- 1) To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their education?
- 2) To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their socialization?
- 3) To what degree do the blind people of the Cretan Regional Association of the Blind think that digital technology affects their career establishment?

#### Instructions for completing the questionnaire

- This questionnaire is ANONYMOUS.
- Please follow the instructions for completing each question group.
- Please reply honestly.

#### Part A

#### **Respondent's profile**

1. Gender

Male  Female

2. Age

Up to 19  20-39  40-59  60 and over

3. Marital status

Married  Unmarried  Divorced  Widow/er

4. Place of residence

- Prefecture of Chania  Prefecture of Rethymno  Prefecture of Heraklion  
 Prefecture of Lasithi  Other

5. Education

- None  Elementary School Graduate  Middle School Graduate  High School  
 Higher Education

6. Are you employed?

- Yes, full time  Yes, part time  No  I am retired

7. Were you visually impaired at birth?

- Yes  No

8. To what degree does your disability affect your reading ability?

- Fully  Considerably  Moderately  Slightly

9. Do you know how to use the Braille system of reading and writing?

- Fully  Considerably  Moderately  Slightly  Not at all

**Part B**

**The role of digital technology in the education of blind people.**

1. To what degree do you think that digital technology affects your education?

- Considerably  Moderately  Slightly  Not at all

2. How much you agree or disagree with the following statements?	1=Strongly agree	2=Agree	3=Neither agree nor disagree	4=Disagree	5=Strongly disagree
Digital technology has had a positive effect on my education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The education system provides blind people with satisfactory access to new technologies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is sufficient information in schools and universities about the possibilities offered by digital technology to blind people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital technology is essential to my education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Part C****The role of digital technology in the socialization of blind people.**

1. To what degree do you think that digital technology affects your socialization?

Considerably  Moderately  Slightly  Not at all

2. How much you agree or disagree with the following statements?	1=Strongly agree	2=Agree	3=Neither agree nor disagree	4=Disagree	5=Strongly disagree
The assistive technologies that allow access to information and entertainment contribute to reducing my social exclusion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital technology can ensure blind people's participation in the country's social, political and financial life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using new technologies in increasingly more sectors of modern life adds to blind people's marginalization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital technology is essential for my integration into society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Part D The role of digital technology in the career establishment of blind people.**

1. To what degree do you think that digital technology affects your career establishment?  Considerably  Moderately  Slightly  Not at all

2. How much you agree or disagree with the following statements?	1=Strongly agree	2=Agree	3=Neither agree nor disagree	4=Disagree	5=Strongly disagree
Digital technology helps the vocational training of blind people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital technology is essential to my	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

work.					
My workplace is equipped with assistive technologies for visually impaired users.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thanks to digital technology I have acquired equal opportunities for my career establishment and development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Thank you for your time!*

## **The Metacognitive skills of postgraduate students studying at the Hellenic Open University, related to Gender, Age, Experience, Self- confidence and Anxiety**

### **Abstract:**

Distance Education, as an alternative type of education, provides wide access to everybody. According to Bruder (1989), Distance Learning is being developed by a remote educational institution. The teacher is not present during the teaching process, nor is he in the same place eg. in a classroom. There is no direct counseling or oral guidance such as in a conventional class. Therefore, “it is more essential to be developed metacognition and metacognitive skills to those students attending Distance Education than to the rest conventional students” (Zahedi & Dorrیمانesh, 2008).

Consequently, this paper focused on the metacognitive skills of students and on the Personal Responsibility Orientation model for autonomous learning (PRO), which is associated with self-regulating learning that takes place in Distance learning. In particular, the research was based on Piaget's “individual constructivism”. Piaget’s study focused mainly on the individual, on whether the student himself is solely responsible for his learning. In this research, emphasis was placed on the correlation of personal characteristics (gender, age) and internal factors (stress, self-confidence, experience) with the development of metacognitive skills in adult education.

A quantitative survey was conducted using a questionnaire of 52 questions. A sample of the survey consisted of 333 postgraduate students studying at Hellenic Open University (HOU). Most results of the survey are in agreement with previous international and Greek surveys that had been conducted. It is found that metacognitive skills are more developed in adults who have more experience, self-confidence and less stress. However, in relation to gender and age, it is found that there may be a number of environmental and social factors that arise from stereotypical gender or age considerations. Further investigation is proposed to be verified whether the self-representation of students (overestimation or devaluation) is the result of a self-fulfilling prophecy prescribed, in line with the beliefs and demands of society.

**Key-words:** Distance Adult education, metacognitive skills, self-regulated learning, gender, age, experience, self-confidence, anxiety

**Nyfidou Aikaterini<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: Nyfidou Aikaterini Primary School Teacher, MSc Pedagogical Science & MSc Early Childhood Education with Special needs, Peuka Thessaloniki, 57010, Greece. Email: [Aikaterinyfidou@acadimia.com](mailto:Aikaterinyfidou@acadimia.com)

## 1. Introduction

Distance Education, is the new educational phenomenon which provides wide access to all students, regardless of gender, age, geographical distance, social, economic and educational level, disabilities, etc. According to Bruder (1989), Distance Learning is being developed by a remote educational institution (Lionarakis & Lykouriotis, 1998-1999; Worrall & Bell, 2007). Distance Learning has adopted a student-centered approach, according to which learners assume the responsibilities of their learning pathway, with teachers as facilitators (Zahedi, Dorrیمانesh, 2008, op. cit. in Philippi, 2014).

Essential component of Distance Education is the autonomous learner's action and his development of metacognitive skills in order to acquire learning independence. According to Lionarakis (2001, op. cit. in Lionarakis, 2005, p. 26), the Distance Education is defined as "the education that teaches and empowers the learner how to learn independently and how to operate autonomously towards a heuristic path of self-learning". This is the reason why Distance learning is not considered as a consequence of the educational-didactic process but depends on "the readiness, willingness and actions of the learner himself" (Lionarakis, 2006, op. cit. in Fanariti & Spanaka, 2010, p. 139).

Autonomous action is realized through strategies used; to plan, organize and regulate learning. These strategies are used by the student himself and are regarded as important metacognitive skills leading to academic success (Dermitzaki, Leontari & Goudas, 2009; Uzun, Unal & Yamac, 2013).

Zahedi & Dorrیمانesh (2008, op. cit. in Philippi, 2014, p. 13) states that the students of Distance Education "need to develop their metacognition and metacognitive skills more than conventional students ". Metacognition involves conscious thoughts of the individual which interfere actively and affect the reconstruction of the individual's cognitive patterns (Mokos, 2012). Metacognitive strategies function as "a set of self-guidelines for regulating an activity" (Mokos, 2012, p.24).

These include; self-assessment, self-question, processing, organization and transformation, targeting and planning, information retrieval, record keeping, self-monitoring, error management, self- enhancing behavior, repetition, memorization, search for social assistance and review of archives (Yiagli, Yiaglis & Koutsouba 2010; Mokos, 2012; Nicolaki & Koutsouba 2013; Yukselturk & Bulut, 2009).

## 2. Research cases

- There will be statistically significant differences in favor of the women students in metacognitive skills.
- There will be statistically significant differences in favor of younger adults in metacognitive skills.
- There will be statistically significant differences in favor of students who have completed most of the subjects (as they have more experience of studies) in metacognitive skills.
- There will be statistically significant differences in favor of students with high levels of self-confidence in metacognitive skills.
- There will be statistically significant differences in favor of students with low levels of anxiety about metacognitive skills.

## 3. Importance of the research

The research that has been conducted aims to assist in the research gaps existing so far in this field of knowledge. As Brockett and Hiemstra (1991) report, when somebody refers to self-

directed adult learning, he is primarily emphasizing to the characteristics of teacher-student interaction. The student's skills are considered to be the result of external factors of the student (for example, these are attributed to how effective is the communication with his/her professor).

Most articles (Giosos, Mavroidis & Koutsoumpa, 2008; Hussain, 2013; Tsitlakidou & Manousou, 2013) attribute the metacognitive skills acquired by the student in Distance education to the skills of teachers or to the environments of e-learning. It is believed that the success of the student is achieved if the mentor-assistant urges him to pose problems since the "teacher helps the student to help himself" (Schmidt, 2011, p.57). Most articles do not attribute metacognitive skills of the students to the willingness, readiness, and personal characteristics of the student (Suanmali, 1981 op. cit. in Hussain, 2013).

Based on the above, most surveys focus on the social environment. More specifically, they are oriented towards the principles of Behaviorism. According to it, the behavior and learning of an individual are shaped exclusively by learner's interactions with the environment. The learning of an individual is not attributed to such factors as personality, character, unconscious mind or to his cognitive patterns (el.wikipedia.org).

On the other hand, this research emphasizes on Piaget's "individual constructivism". Piaget's study focuses mainly on the individual, whether the student himself is solely responsible for his learning (Brockett & Hiemstra, 1991; Yiagli, et al., 2010). It is important that Piaget began his scientific career as a biologist, so his studies deeply influenced his way of thinking. He is considering that cognitive development is directly related to the inherent, personal characteristics of the individual. Piaget refers to "intellectual autonomy" (Civirzikis, 2010, p. 15), a process in which learning is not transferred from the environment but is the result of processes in the mind of each individual, not a result of joint building or understanding. This is why the present research effort has emphasized on the correlation of personal characteristics (gender, age) and internal factors (stress, self-confidence, experience) with the cultivation of metacognitive skills.

By taking students an active part in their learning process, using self-defining and critical reflection will choose, build and create suitable environment to optimize their learning with perseverance and effort. They will define their learning needs according to their gender, age, experience, anxiety and self confidence, and if they are self-conscious, they will assume their personal responsibility (Giannakopoulou & Hasapis, 2013; Mpei, 2016).

Teachers, on the other hand, being aware of the extensions of the personal characteristics of the students, will be able to adapt the requirements towards each student by developing techniques for empowering self-confidence, reducing their anxiety and making use of their experiences (pre-existing knowledge).

Finally, the findings of the survey may not fully admit either the principle of behaviors or Piaget's, but focus on Vygotsky's socio-cultural constructivism (1978, op. cit. in Papadimitriou & Lionarakis, 2010, p.108), which is a combination of of the two above theories, "learning is initially achieved within the socio-cultural context and then on a personal level". Generally, autonomy is equally influenced by "the educational context in which it takes place (social dimension)" but also "by the personal characteristics of the students (personal dimension)" (Mpei, 2016, p.3).

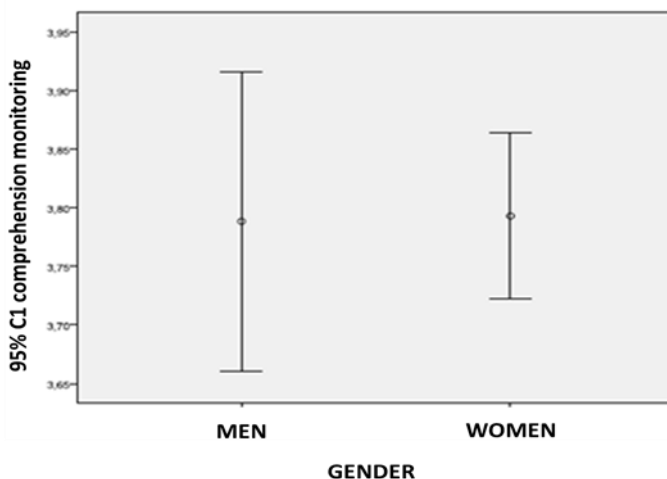
#### 4. Research Strategy

A strategy of non experimental, predetermined design was followed, with strict prior identification of variables, queries, conduction, measurement and analysis procedures (Creswell, 2011; Robson, 2007). It is a quantitative type, mathematical research, according to Bentz and Shapiro (1998, op. cit. in Robson, 2007). They were searched measurable, fully-determined data gathered on a reliable scale of observations. Observations were recorded in the form of numerical data and then analyzed using the SPSS statistical program (Field, 2016).

The **sample** of the survey consisted of 333 postgraduate students of the Hellenic Open University that attended the “Educational Science program” in the cities of Thessaloniki, Kozani and Ioannina. As a **means of collecting data**, the standardized questionnaire was used, with a total of 52 predefined queries and possible answers. In particular, a combination of two reliable, proven and valid research tools was used. The first is the *Metacognitive Assessment Inventory (MAI) questionnaire* developed in 1994 by Schraw and Dennison from which 35 questions were selected. These concern the second aspect of the interpretation of metacognition as given by Flavell (1979, 1987 op. cit. in Philippi, 2014), namely, the regulation of metacognition (planning, comprehension monitoring, information management strategies, error correction strategies and evaluation). In addition, 13 questions were selected from the second questionnaire *Motivated Strategies for Learning Questionnaire (MSLQ)* developed in 1991 by Pintrich, Smith, Garcia & McKeachie. These questions investigate the level of self-esteem of students and the anxiety that they feel in learning processes.

#### 5. Findings - Discussion

##### 5.1 Metacognitive Skills - Gender



For the sample as a whole, the mean value of the comprehension monitoring dimension was  $M = 3.79$ ,  $SD = .55$  Bootstrap 95% CI [3.73 3.85]. Men showed a mean value in this dimension  $M = 3.79$ ,  $SD = .57$  Bootstrap 95% CI [3.66 3.91] and women  $M = 3.79$ ,  $SD = .57$  Bootstrap 95% CI [3.71 3.86]. This difference .004 was not statistically significant  $t(331) = .062$ ,  $p = .950$

Generally, the results of this research were more in agreement with the findings of Zhu (2007, op. cit. in Ciascai & Haiduc, 2011) that there are no significant gender differences in metacognitive skills. Similar observations have been made by Bullock and Burnaska (1997), Sierra and Wang (2002) and Lu et al. (2009) who found no difference between the two sexes, nor the ways of learning them. Therefore, our initial research case was not fully confirmed.

The only metacognitive skill of the five investigated, in which women seemed to excel at, was that of *error correction strategy*. Several researchers also argued that women have a more

developed self-control skill than men (Ciascai & Haiduc, 2011; Bidjerano 2005; Yukselturk & Bulut, 2009; Zimmerman & Martinez-pons, 1990).

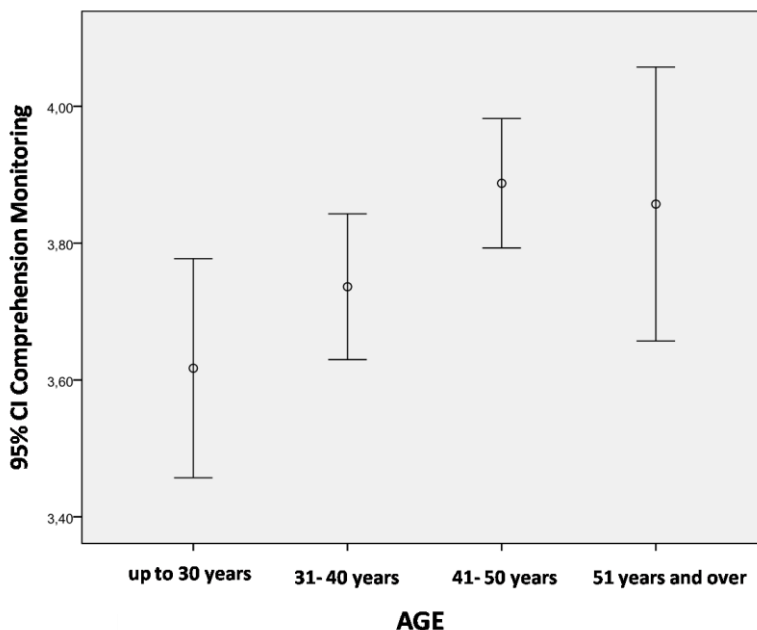
However, important is the issue arising from society's biased positions. These positions state that women must be careful, organizational, consistent, and make no mistakes. Women's responses may have been based on their self-perception as they have been influenced by the surrounding factors. Probably, they shaped themselves as society imposes (Niemivirta, 1997).

## 5.2 Metacognitive Skills – Age

The correlation of metacognitive skills with age, needs to be further investigated, because psychological and neurophysiological factors are involved or simply social experiences, stereotypes and norms are implicated.

It is a fact that in the following metacognitive skills; comprehension monitoring, information management strategy and evaluation, younger adults up to 30 years old seemed less able than the other age groups. This can be explained as these young people do not have many experiences of similar situations. As many scholars have found, the metacognitive skills of the individual are largely shaped by his metacognitive experiences (Metallidou and Evcleidi, 1987; Flavell, 1987; Garner, 1987, op. cit. in Panaoura 2004).

**Diagram for Differences in Comprehension Monitoring by Age Category**



It was also found that adults up to 30 years old had higher levels of anxiety and lower levels of self confidence than everyone else. It is well known that anxiety can impair functional memory so that even if individuals have high metacognitive skills, these can be reduced and poorly rendered (Beilock & Carr, 2005, op. cit. in Legg & Locker, 2009). In addition, low learning self-confidence makes the individual doubt internally about his / her abilities (Kokkos, 2005), and not use a variety of metacognitive

strategies (Panaoura, 2004).

More generally, in most dimensions (comprehension monitoring, information management and evaluation) of this research, students of the age group 41 to 50 have a higher level of metacognitive skills. This is explained either because this age group has better biological, mental and cognitive functions than the older group (Mecacci & Righi, 2006; Pansky, Goldsmith, Koriat, & Pearlman-Avni, 2009, op. cit. in Hargis et al. al., 2016; Worrall & Bell, 2007), or because other factors are involved. One such factor may be the fact that people in the age group 41 to 50 many times overestimate their skills (Worrall & Bell,

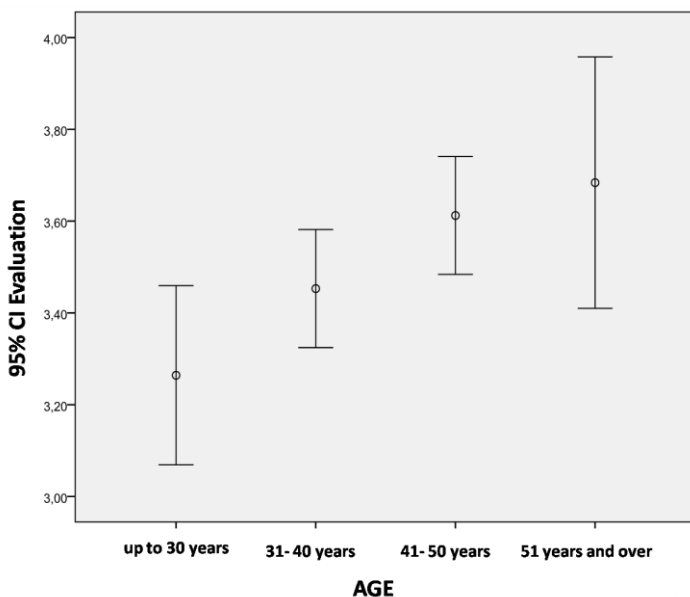
2007) as they are subject to the demands of the society. The society considers that the age group 41 to 50 must be quite competent and experienced. It has been found that these individuals feel quite confident and less stressed than the other groups.

With respect to the age group of 51 years and over, several previous studies are confirmed (Connelly, Hasher, & Zacks, 1991; Verhaeghen, Steitz, Sliwinski, & Cerella, 2003, op. cit. in Hargis et al., 2016). The above studies support that more mature adults have lower metacognitive skills since their neurons lose their elasticity with the passage of time. In the present study, also, the metacognitive skills of individuals aged 51 and above are found to be diminished in the dimensions of understanding and information management.

The question is whether the above finding is related to what has previously been suggested by many (Connelly, Hasher, & Zacks, 1991; Salthouse, 1990, op. cit. in Hargis et al., 2016) that in these ages brain cells and neurons are gradually being destroyed, with the result that the mature person is unable to gain new knowledge.

However, the above view is increasingly being overthrown (Hertzog, 2002, op. cit. in Hargis et al., 2016; Koumbareli, 2014; Larkin, 2000, op. cit. in Panaoura, 2004; Tullis & Benjamin, 2012, op. cit. in Hargis et al., 2016), and the present research advocates the collapse of the above findings. We found in our research that in the metacognitive skill of error correction, there was no shortage of individuals aged 51 and over. This research came in full agreement with the research by Hargis et al. (2016) who did not find age differences in the accuracy of error correction between younger and older adults.

**Diagram for Differences in Evaluation by Age Category**



In addition, in the metacognitive skill of the evaluation, a significant increase in the capacities of the older adults (51 and above) of the sample was observed that surpassed all the younger students. Obviously, the particular students, after rich experiences of evaluation crisis, respond very satisfactorily to similar situations. This suggests that learning metacognitive strategies is not age-related (Tullis & Benjamin, 2012, op. cit. in Hargis et al., 2016).

The fact that this age group showed some lower-level metacognitive skills may again be due to the lower self-confidence found, as they were compared to the other age groups. According to Worrall & Bell (2007), the self-confidence factor, whether presented at high or low levels, plays an important role in regulating metacognition in relation to age. Perhaps, these adults are convinced that memory and learning ability is automatically reduced to an older age. Thus, experiencing a self-fulfilling prophecy reduce by themselves the dynamics of their learning (Worrall & Bell, 2007).

In conclusion, our initial research case was partially confirmed. However, before any safe conclusions can be drawn, the well-grounded beliefs that society holds should be further investigated. These beliefs often falsely regard young people as "the weak ones", the adults of ages 41 to 50 are considered to be "the most capable" and the most mature of all are considered "outdated".

### 5.3 Metacognitive Skills – Experience

Thematic Units	Bootstrap 95% CI			
1 Thematic Unit	<i>N</i>	74		
	<i>M</i>	3.71	3.59	3.82
	<i>SD</i>	.48		
2 Thematic Units	<i>N</i>	89		
	<i>M</i>	3.76	3.63	3.90
	<i>SD</i>	.66		
3 Thematic Units	<i>N</i>	76		
	<i>M</i>	3.85	3.71	3.99
	<i>SD</i>	.59		
4 Thematic Units	<i>N</i>	94		
	<i>M</i>	3.83	3.73	3.94
	<i>SD</i>	.52		

#### **Descriptive statistics indicators for the comprehension monitoring dimension referring the number of Thematic Units (subjects) attended by students.**

As expected from the initial research cases, students with more study experience, those who attend more than one (1) thematic units (2 to 4), were found with higher level metacognitive skills than those who attended their first subject.

These findings were expressed in four of the five dimensions of metacognitive skills; planning, monitoring understanding, information management and evaluation. Only the error correction strategy seems to be independent of the students' study experience.

Generally, for the development of metacognitive skills, there is a need to repeat experiences, whose results reshape the cognitive patterns (Panaoura, 2004). The experiential exposure to conditions such as the postgraduate program of the Hellenic Open University creates and recreates the pre-existing knowledge so that a future unit of study facilitates the handling of similar future conditions (Hartle, Baviskar, & Smith, 2012). According to Flavell (1979, op. cit. in Mokos, 2012), experiences that take place before, during, or after a cognitive activity offer internal feedback to the function of metacognitive thinking, link old information to the new and increase the level of understanding.

Finally, it has been observed in the present study that the more subjects students have attended, the higher the levels of self-confidence they feel and the less stress they experience for their success.

### 5.4 Metacognitive Skills - Self-Confidence

As expected from the research question as formulated, an important correlation of self-confidence with all dimensions of metacognitive skills was found in this research.

It has been found that students with developed self-confidence also have developed metacognitive skills and the opposite, resulting in their high final performance (Joo, Bong, & Choi, 2000; Wang & Newlin, 2002; Yukselturk & Bulut, 2005 op. cit. in Yukselturk & Bulut, 2009). According to Panaoura (2004), "individuals with high self-image, have also high motivation, high self-control capacity, and use a variety of metacognitive strategies."

	Planning	Comprehension Monitoring	Information Management strategies	Error Correction strategies	Evaluation
Planning	1				
Comprehension Monitoring	.586** .000	1			
Information Management strategies	.483** .000	.649** .000	1		
Error Correction strategies	.327** .000	.454** .000	.461** .000	1	
Evaluation	.453** .000	.560** .000	.465** .000	.371** .000	1
Self-Confidence	.255** .000	.288** .000	.252** .000	.151** .006	.315** .000

**Pearson r linear correlation index of self-confidence with all dimensions of metacognitive skills**

However, further research is proposed to see if they have a real high self-esteem and high metacognitive skills, or the students have provided these answers so that they are socially acceptable, keeping pace with the beliefs and demands of society.

Taking into account previous investigators (Stankov, 2000; Dunning et al., 2003, op. cit. In Panaoura, 2004), it is probable that many people do not accurately self-render themselves (overestimation or devaluation), resulting in limited development of their metacognitive skills.

According to Stankov (2000, op. cit. In Panaoura, 2004) there are pupils with low performance and low metacognitive skills that tend to overestimate their potential, without any knowledge of their difficulties. Consequently, they do not make the least effort improvement (Dunning et al., 2003, op. cit. in Panaoura, 2004). On the other hand, students with high metacognitive skills, who lack high self-esteem, are always willing to face new problems and manage their learning in a better way (Demetriou, Kyriakides & Avraamidou, 2003, op. cit. in Panaoura, 2004).

### 5.5 Metacognitive Skills – Anxiety

	Planning	Comprehension Monitoring	Information Management strategies	Error Correction strategies	Evaluation
Planning	1				
Comprehension Monitoring	.586** .000	1			
Information Management strategies	.483** .000	.649** .000	1		
Error Correction strategies	.327** .000	.454** .000	.461** .000	1	
Evaluation	.453** .000	.560** .000	.465** .000	.371** .000	1
Anxiety	-.065 .235	-.092 .095	-.080 .146	.063 .254	-.022 .684

**Pearson r linear correlation index of anxiety with all dimensions of metacognitive skills. Pearson r linear correlation index of anxiety with self-confidence was -404.**

The original research question cannot be fully and accurately answered on the basis of the results of this research effort, so further research is proposed. The findings showed that there is no significant correlation of anxiety and metacognitive skills, although the values show a slight negative correlation, as originally stated in the assumptions.

Surely, there was a statistically significant and strong negative correlation between stress and self-confidence. Also, as mentioned above, self-confidence has shown significant statistical positive correlation with metacognitive skills. Probably, these two correlations point to the fact that as the levels of anxiety decrease, metacognitive skills are increased (Chapell et al., 2005; Niemczyk & Savenye, 2005; Ozturk, Bulut & Koc, 2007, Bulut, 2009).

However, as found by Zhe Wang and Stephen Petrill, there are also cases where moderate levels of stress in the learning process have been associated with high performance and high metacognitive skills, as long as they have a high motivation for learning (sciencearchives.wordpress.com, or .).

### 6. Restrictions and Suggestions

The main limitation of the research was the fact that the results were based on questionnaire responses and not on interventions and evaluations through activities, which probably demanded much time to be spent. There was, therefore, limitation of time and resources. Furthermore, another obstacle was the kilometeric distance between teaching centers in order to be exacted a more in-depth investigation with a combination of research methods.

What is highlighted above is that the results are likely to be based on how society has set standards for gender and age groups. This means that the participants' desire for social

acceptance (Robson, 2007) or simply social consistency may have prompted them to assess themselves accordingly. For example, society considers it appropriate for somebody to show self-confidence, even if he does not have. In addition, society many times thinks that naturally somebody older should be anxious, because his age is regarded as an inhibitory factor to cope with knowledge.

It is worth mentioning that the significance of Vygotsky's "socio-cultural theory" is highlighted by the present results of the research, an optic that was not firstly predicted, that's the reason why it deserves to be re-examined. According to Vygotsky, it is not enough only to focus on the student's external environment (as did the behaviorists - and most researches) or just on the individual (as Piaget did - and the present research) in order to understand the complexity of cognitive development. The development of cognitive patterns depends on the symbolic systems in which each individual nourishes. Symbolic systems refer to symbols created by each culture (Koliadis, 2002).

The survey could be also conducted via an electronic questionnaire so that the sample was even larger and more representative as it was covered a larger geographic area. In the future, it is suggested to be used specific activities for respondents so as to control their metacognitive skills, or to be conducted additional interviews and evaluations of their results on a scale. Finally, further research could be carried out in other adult education structure, or at another distance learning institution.

## 7. Conclusion

### Advice to Students

- Not to be guided by social norms and stereotypes about gender and age.
- Develop and use as many metacognitive strategies as possible.
- Evaluate themselves as objectively as possible.
- Set goals, evaluate their effort and deficits.
- Be motivated when learning so that that their anxiety could be creative.
- Participate in various learning processes so that through their experience, their cognitive shapes can be reconstructed.
- Do not be restless that they have fully approached knowledge, showing not low self confidence but not excessive.

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## **School Bullying & Counseling through the Live Without Bullying Platform**

### **Abstract:**

This paper is an attempt to approach school bullying and the effectiveness of counseling to teens through the online platform Live Without Bullying. It is a phenomenon that tends to become epidemic, with known and under investigation aspects, multilevel effects but always the same recipient, the child. Therefore, its definition and the forms with which it can manifest itself, within and outside the school framework, are listed. Statistics are presented that reflect the extent, intensity and incidence of intimidation at both international and national levels. Consequently, the causes and the consequences for "victims", "bullies" and "bystanders" are analyzed. A brief description of the Live Without Bullying platform, its operation and, more generally, its philosophy follows. Simultaneously, the role of an online counselor is described and how the concept of counseling is adapted to an innovative framework, such as that of the platform, and to such a sensitive issue as bullying. Finally, quantitative and qualitative data collected between September 2016 and June 2017 are included.

**Key words:** School bullying, counseling, online platform

**Foteini Mavrogiorgi<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: Psychologist Foteini Mavrogiorgi, Athens, Greece. Email: [fotinimavr@hotmail.gr](mailto:fotinimavr@hotmail.gr)

## 1. Introduction

Violence among children is not a modern phenomenon. Relevant examples can be found even in well-known works of world literature, such as "The Adventures of Sir Thomas Browne" and "Oliver Twist". International surveys have shown that around 20.8% of students have experienced bullying and violence (National Center for Education Statistics, 2016).

Similar studies which have been conducted in Greece indicated that the phenomenon of intimidation concerns one out of ten children, resulting in serious consequences for their psychosocial development and learning process. School bullying is an integral part of the violence that is found in society. "Bully" and "victim" are people from the society in which the school is located and the way they both behave reflects and reproduces what is cultivated in the family, school, and social environment.

### 2.1. Definitions of school bullying

Internationally, the school functions, to a great extent, as a vehicle for socializing and evolving the student population. In this context, the role of the teacher is not limited to the sterile transmission of knowledge but to the development of healthy persons, emotionally, psychosocially and physically, who can cope with the possible challenges and threats of modern society. Bullying in the school environment is not a recent phenomenon, but has been observed and recorded internationally for many years (Artinopoulou, 2001. Eron, Huesmann, Dubow, Romanoff, & Yarmel, 1987; Espelage, & Swearer, 2003).

Bullying is a form of aggressive behavior (Solberg, Olweus, & Endresen, 2007), which occurs in the school context, influencing both the child's and adolescent's psycho-emotional development and the proper functioning of the school. Olweus (1996) is the pioneer in research of this phenomenon. According to him, "a student is being bullied or victimized when multiple forms of violent behaviors are repeatedly implemented by one or more students. In order for school bullying to be described as a violent act, it should be unwarranted, systematic and repetitive, be exercised by a stronger child or a group of children to a weaker one (there is always a difference of power), cause fear, anxiety, physical and mental suffering to the child being victimized, drawing the most powerful child, from this act, a benefit (eg feeling of satisfaction, gaining prestige, popularity, etc.), while the weaker child cannot stand up for himself".

Arora and Thompson (1987) argue that bullying is "the attainment or maintenance of social sovereignty that occurs because victims do not have sufficient skills or the ability to integrate with their classmates". Hoover et al. (1993) refer to bullying as the "physical or psychological abuse of a person by a student or group of students". According to Rigby (1996), Suckling & Temple, (2001), the characteristics of school bullying are the intention of the offender to hurt, the realization of the above intention, the harm of the victim, the dominant inciting of the bully on the victim, the lack of justification for the act, its repetition, and the satisfaction the bully derives from the victim's harm. Smith (1999), Farrington (1993), Smith and Brain (2000) report that "bullying has two major components. Repeated harmful acts and power imbalance. It includes recurrent physical, verbal or psychological attack on the victim, who cannot defend himself because of his strength, or because the victim has a numerical disadvantage or is characterized as a conciliatory".

#### 2.1.1. Forms of school bullying

School bullying can take various forms. The most frequent distinction is made between direct intimidation, involving face-to-face contact with a victim and a bully, and indirect, referring

to the spread of rumors or the use of electronic means of communication. According to Rigby (2008), direct and indirect forms of school bullying can be expressed through:

- verbal bullying: it is one of the most common forms of intimidation that may occur in front of others. It can be expressed through offensive comments and vulgar phraseology aimed at creating vulnerable groups of people, causing pain and shame,
- physical bullying: it mainly involves punching but can often be manifested through the seizing of objects (eg, money) or property destruction,
- social - interpersonal intimidation: here is the deliberate exclusion from social groups (Lee, 2006) as well as the repeated estrangement of a person or group of individuals either by excluding him / her from the group or by persuading others to exclude him or her from their social interconnections or spreading rumors threatening to disclose personal issues of the victim,
- bullying on the Internet: this category includes the use of information and communication technologies such as emails, messages and web pages. It is a mix of verbal, interpersonal and psychological bullying. With respect to this kind, the use of new technologies and the internet by a person is aimed at harassing others. It differs from other types of intimidation since it interferes with the recipient's personal space and is difficult to restrict, since there is no restriction either to the electronically distributed messages or the number of recipients and then the senders of these messages.

## 2.2. Causes

With regard to the causes of the phenomenon, school bullying is complex and multifactorial, the event of which includes a number of individual and environmental variables. In particular, factors such as appearance and physique, all kinds of diversity, ethnicity, school performance, general behavior, lifestyle, sexual orientation, differences in dynamics (as mentioned above, intimidation is exercised by a stronger child or a group of children to a weaker one) can exert a tremendous impact on the outbreak of school bullying. It can also be due to low levels of assertiveness, the oppression of emotions, the family and cultural environment, and socio-political conditions.

It is worth noting that, just as in a variety of social phenomena, repetition can lead to acceptance. In the case of intimidation, after the repeated occurrence of school violence, children can feel that a violent message - behavior is normal.

## 2.3. Impact of school bullying

School bullying can directly affect the functioning of the school as it intensifies the feelings of fear among students, thus hampering the teaching process and the manifestation of antisocial attitudes. At the same time, victims and bullies experience problems such as isolation, difficulty in interpersonal relationships, learning difficulties or school failure, and adopt behaviors such as smoking and alcoholism.

As far as the psychosocial effects of intimidation on children are concerned, these are many and serious. In particular, children who are bullied may:

- show anxiety and insecurity,
- present school denial and, therefore, frequent absences,
- display learning difficulties and, consequently, lead to school failure,
- show social withdrawal and experience intense loneliness,

- have psychosomatic problems such as headaches, abdominal pain, anorexia, insomnia, enuresis, etc.,
- show phobias, pessimistic thoughts, difficulty in concentrating and, in extreme cases, these can lead to suicide attempts.

The children-bullies are, at the same time, at great risk to (Gini & Pozzoli, 2006):

- be expelled from and stop school,
- leave their houses,
- develop antisocial - delinquent behaviors, as adults,
- use alcohol and other substances,
- show early sexual activity.

Bystanders, as they play an important role in school bullying, have a variety of feelings about these incidents. Students who remain uninterested feel uncomfortable and have difficulty in deciding who is responsible or whether the victim deserves this behavior and may feel guilty for not supporting the latter. At the same time, the school environment creates strong feelings of insecurity as these students witness incidents of bullying take place in an environment that is considered to provide security. On the other hand, when bystander students are involved in a bullying incident, they are automatically "victimized" and feel threatened.

## **2.4. Statistical data**

According to a UNESCO report on violence in schools, 246 million children and teenagers, regardless of gender, are being bullied every year globally with disabilities, gender, poverty, and diversity as the main axes. 30% of the victims of school violence seek help from an adult from the family or friends, less than 10% from the teaching staff, while 30% of the victims of violence and intimidation do not share their problem with anyone.

In Europe, the proportion of adolescents aged 9-16, who have been intimidated online, has increased from 2010 to 2014 from 8% to 12%, mainly for girls and children of younger age. Statistics for Greece reveal that 33% of secondary school pupils have experienced some form of intimidation, 17% of whom do not mention the events (Ministry of Education 2016) and 20% of children report having been bullied 2 -3 times a month (ESDP). Greece now holds 4th place among 41 countries in incidents of in-school violence and intimidation in Europe.

## **2.5. Bullies - Victims – Bystanders**

### **2.5.1. Bullies**

Every child may be a potential bully if he cannot perceive the factors that lead to the control or extermination of violence and if he does not understand how his personal experiences can determine and identify his attitudes and behaviors (Tsiantis & Asimopoulos, 2010). Children who show aggressive behaviors towards their peers often have some common features:

- feel inadequate to cope with the difficulties of everyday life,
- have probably experienced similar behaviors within their own family environment,
- their families may be encouraging them to engage in intimidating behavior, highlighting the "benefits" of these behaviors,
- have been subjected to some form of abuse,
- have difficulty in externalizing their feelings or are not allowed to do so,
- are students with moderate or low school performance, with no particular interest in school,
- have strong leadership tendencies and establish their "status" through such intimidating behaviors towards "disobedience." (Tsangari, 2003).

### **2.5.2. Victims**

Victims are the usually so-called "good students", quiet, sensitive, anxious and insecure. The main and determining characteristic of the victims is the physical or psychological weakness in contrast with their peers, while there may be some difference or "deviation" from the average that will be the reason for victimization (boys with feminine characteristics, large or petty children, mental problems, learning disabilities, problems in appearance and communication, some physical disability, minority or migrant groups) (Rigby, 2008. Tsinganou, 2008).

According to Perry, Perry and Kennedy (1992), these children have difficulty in supporting and defending themselves and, when confronted with another child, they exhibit submissive, defensive behavior - retreating, crying or lack of assertiveness. They feel unsuccessful, ashamed, without a supportive environment within the school framework, and they cannot understand why they are bullied.

### **2.5.3. Bystanders**

Many times the roles of the bully and the victim can easily be reversed and that depends on the attitude that the bystanders of the incidents of violence will adopt. A bystander of such an event is someone who knows or witnesses the incident without actively participating in it. He may not be involved directly, however, he may be indirectly affected, mainly at an emotional level. He may encourage the bully (with laughter, applause etc.) (Cowie, 2000. Smith, Twemlow & Hoover, 1999), or he may sometimes support the victim or condemn the bully and provide useful information about an act of violence. Yet, and with his passive attitude he can give the message that what is happening is acceptable. This feeds into the phenomenon.

## **2.6. The "Live Without Bullying" program**

The "Live Without Bullying" program is an initiative of the Family and Child Care Center (KMOP) in cooperation with the Aglaia Kyriakou Children's Hospital and the Adolescent Health Unit to tackle the phenomenon of school and internet bullying. The groups that appeal to the online platform of Live

Without Bullying are:

- children aged 10 to 18 undergoing school or internet intimidation,
- parents / guardians, whose families are affected by the bullying phenomenon,
- teachers and employees in the field of education.

### **2.6.1. The Family and Child Care Center (KMOP)**

KMOP is a non-governmental organization founded in 1977 to support people who are threatened or live under social exclusion, providing integrated services for the social and professional reintegration of the unemployed and those belonging to vulnerable social groups, the development of distressed areas, scientific research and the provision of expertise on social policy issues.

During its operation, KMOP has implemented a large number of programs in cooperation with both international and European as well as national bodies, while the population groups in which it is mainly involved are the following:

- families facing family, social, professional problems,
- people suffering from physical and mental disorders,
- students who have difficulty in adapting,

- single parent families,
- long-term unemployed and those with low professional qualifications,
- migrants, returnees, gypsies and refugees.

### **2.6.2. The program's innovations**

The innovations of the Live Without Bullying program are:

- its online character: the program is implemented online through an electronic platform created for the first time in Greece and is a communication hub that facilitates contact between the target group members, both with each other and with the scientific staff who can offer immediate bullying support,
- peer support methodology: a fundamental axis of this methodology is the education of children and adolescents aged 15 to 18 with the aim of supporting their classmates or children of younger age who face intimidation. The influence of peers is much greater than that of adults as the inherent intimacy in communicating with each other contributes to the faster creation of conditions of immediacy, enhancing the effectiveness of the intervention. At the same time, young counselors, through specialized training, develop valuable counseling skills and can act as multipliers of positive influence in their wider social environment,
- the provision of online counseling services tailored to the needs of each group.

### **2.7. Online counseling**

Online counseling is an emerging form of counseling with features that differentiate it from traditional counseling. It takes place on the Internet, involves the participation of two or more people and can take various forms depending on the type of communication (written / oral) and the time of communication (at the same time / not immediate). Depending on the type of online counseling, a counselor and a child can use written speech, verbal communication, visual contact, or a combination of them. Online counseling has been the subject of controversy as it does not involve direct human contact, so it is considered that key elements of the counseling process, such as non-verbal communication, may be lost, thus reducing its effectiveness. However, according to recent surveys (Wagner, Horn & Maercker, 2013), online counseling can be as effective as sessions in person, offering advantages such as accessibility, reduced cost or free of charge, flexibility and anonymity.

According to surveys, children and adolescents have a clear preference for seeking help online, mainly because of its anonymity, their tendency to solve their own problems without the help of their parents and the great familiarity and time they spend on the internet (Sindahl, 2013).

#### **2.7.1. Online counseling in "Live Without Bullying"**

Online counseling support for children and teenagers facing bullying at school or on the internet is the core of the program. The basic idea behind the creation of the platform was that the high degree of familiarity of children and adolescents with the internet would boost the seeking of help to manage the bullying problem.

Although forms of online counseling vary, online chatting has been chosen to ensure anonymity of users and immediate communication - response to the child or teenager who wants to talk to someone. At the same time, it was considered appropriate to create a framework in which young people could help other young people by sharing common codes of communication and creating a sense of intimacy and identity by increasing the chances of

seeking help from children. At the same time, counseling support for parents and educators is also provided through an asynchronous messaging.

## **2.8. The structure of the platform**

The online platform on which the implementation of the program is based consists of four user groups:

- children: is the most basic and most crowded user group and consists of children aged 10-18 who are experiencing school and internet bullying. Children communicate with counselors via a real-time messaging system,
- advisors: this group consists of 15-18 year olds as well as volunteer students and graduates of psychology and humanities departments. Counselors are the ones who provide online chat counseling to children who face bullying in their lives while teenagers provide their support to the public spaces of stories and through Be Positive,
- parents and teachers: this group concerns teachers and parents whose work and personal life are affected by school bullying. These users have the ability to communicate with the platform's consultants via messaging,
- supervisors: this group consists of those responsible for the proper functioning of the electronic platform, both in scientific and technical terms. Specifically, this group includes:
  - \* the program supervisors, who monitor at all times the interaction between counselors and children, intervening only in exceptional cases, while at the same time support the counselors in their advisory role. The program supervisors are volunteer graduates of psychology departments with a license to practice and work experience in providing counseling services to children,
  - \* assessors - quality control officers, who evaluate daily the services provided by both psychologists and counselors. Their aim is not only to ensure the quality of the services provided but also to assess the ability of the counselors to take on more difficult cases,
  - \* the technical support of the platform, which ensures its smooth operation at the technical level and implements supplementary services systems when this is deemed necessary on the basis of users' needs.

### **2.8.1. Skills of a good counselor**

The process of consulting children and adolescents, within the framework of the program, is being conducted under the terms of a cognitive-behavioral and person-centered approach. A fact that implies that the skills of the counselors are determined by these approaches. The "repertoire of skills" includes empathy, unconditional acceptance, authenticity and active listening. More specifically, empathy refers to the mood and the ability of the counselor to "experience mentally and emotionally the world from the point of view of the client, as if he were (the counselor) in the position of the client, without, however, ignoring the fact that he is not in the position of the latter" (Rogers, 1959). In unconditional acceptance, the counselor is unaffected and does not judge the patient for any of his features but accepts him as a human entity. When he feels acceptable, he relaxes his defenses, feels safe and begins to look at his own problem at his own pace. Authenticity refers to the compatibility of the individual's experiences with his self-understanding. Compatibility is detected when experiences and feelings do not threaten the self-image and do not conflict with it but are recognized and are available for further processing. Finally, active listening is a communicative way of engagement between the transmitter and the receiver, where both are active in the process.

According to Lang et al. (2000), active listening is a communicative skill to explore and recognize thoughts.

### **2.8.2. Objectives of the counseling procedure**

Through the counseling process, it is attempted to empower the child and the teenager to cope with the situation on their own right and then seek allies from the social environment, ideally from the school environment. Alternatively, they are encouraged to look for peer-to-peer partners in the school environment in general. Support is provided to share the situation with an adult from the family environment in order to provide emotional support and counseling or with an adult from the school environment who will understand the situation and intervene effectively in it. Finally, in exceptional cases, support is given when the intervention at a legal level is necessary.

The conversation with children and adolescents starts with the introductions, the confidentiality statement and the counselor informs that the duration of the discussion varies between 30-45 minutes. There are some open introductory questions for the examination of the present emotional state of the individual and the problem in general. An effort is made to identify the child's goals and explore his thoughts on possible interventions. Together, they select a satisfactory solution according to the judgment of the counselor and share a detailed action plan where possible outcomes and possible interferences are discussed. At the end of the conversation, the child / adolescent is encouraged to revisit the platform and information about the counselor's shifts is given.

### **2.9. Quantitative - qualitative data**

Below there are statistics received between September 2016 and June 2017. With regard to the number of single user conversations, 63% of the children communicate with the platform once, 18% twice, 6% three times, and 13% over four times. There is, also, information about the forms of bullying reported by children. 64% of these is verbal bullying, 3% physical bullying, 4.5% social isolation, 15% verbal and physical violence, and 13.5% homophobic comments. In terms of the age factor, children aged 10-12 years visited the platform at 25.4%, adolescents aged 13-15 years visited the platform at 47.5% while adolescents aged 16-18 years entered the platform at 27,1%. While, with regard to gender, it appeared that the majority of children who fled to the platform were girls (62.6% against 37.4% of boys).

Finally, qualitative data was also collected, based on the recording of incidents by the counselors. First of all, girls appear to be more socially bullied while boys are verbally abused or there is a combination of verbal and physical violence, which is confirmed by relevant literature (eg, Crick & Grotpeter, 1995. Smith, Nika & Parasideri, 2004). Intimidation is carried out more often by a group of children, possibly from the whole class, rather than by a single person. For a significant number of bullying victims, the time they began to face school bullying is placed in the early years of their school life, with few victims communicating with the platform immediately after the instigation of intimidation, and therefore valuable time is gone. A significant number of children have addressed teachers and principals who have not been able to deal effectively with the problem. The consequences of intimidation are mainly the occurrence of daily fear, feelings of resignation and hopelessness, depressive symptoms, school denial, social isolation, and in extreme cases of chronic intimidation wishes of death and suicidal ideation (Andreou, 2000. Galanaki & Vogiatzoglou, 2007. Galanaki, Amanakis , & Shark, 2012). Finally, the talks are mainly about the weakness of victims, the empowerment and support of the ways children have made up to defend themselves but are afraid to apply them.

### 3. Summary

This paper is an attempt to approach the phenomenon of school bullying, which is constantly increasing. It is a phenomenon of juvenile delinquency that occurs in many countries of the world and refers to the use of violence between pupils or peers. Although there was always the interest of research especially in recent years, making it one of the most talked about social phenomena, without, however, entailing effective intervention and treatment of this, particularly in Greece. KMOP 's initiative on the operation of the Live Without Bullying platform aims at providing consulting services both to adolescents who suffer bullying in school and to parents and teachers, in order to obtain guidelines to address these incidents effectively.

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## Coaching: A Tool for Empowerment in Adult Education and Second Chance Schools

### **Abstract:**

This paper attempts to explore the possibility of applying coaching practices to adult education and in particular to Second Chance Schools. Having as a starting point a definition of coaching and its differences from educational mentoring and counseling, it presents the principles upon which the philosophy of coaching is based. It also analyses the core competences which an effective coach should possess and cultivate, and it compares those to the characteristics and roles of an adult educator. Moreover, it presents the fundamental principles of adult education at Second Chance Schools, as well as their philosophy, their goals and the innovative features of their curriculum. What is examined is the possibility of making use of coaching as a complementary approach in the field of Second Chance Schools, as an extra tool to be used by the multi-competent adult trainer.

**Key-words:** empowerment, coaching, adult education, Second Chance Schools

**Agoritsa Papachatzi<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: Agoritsa Papachatzi, Adult educator, trainee coach, Seferi 5, 55132, Kalamaria, Thessaloniki. Email: [agoritsa\\_p@hotmail.com](mailto:agoritsa_p@hotmail.com)

## 1. On Coaching

Coaching is an intervention that emerged quite recently to be used along others (psychotherapy, counselling, mentoring etc) with the aim of dealing effectively with issues concerning individuals or organizations. It has been heralded as a powerful tool for optimizing people's potential and performance and has grown substantially over the last thirty years. The term coaching comes from sports and indeed the pioneers of coaching, Timothy Gallwey and Sir John Whitmore, have incorporated a lot from the methods coaches use in sports into coaching the mind. Gallwey has been a tennis expert and he was the first to invent and apply a method of coaching for personal and professional development, starting from tennis, as described in his first book, *The inner game of tennis*, published for the first time in 1975 (Gallwey, 1986). In this book he introduces the idea of inner game, played in our minds by our two selves, which fight for dominance and for leading us to success or failure. Since then, Gallwey has written plenty of books and developed a theory on how the individual can unlock his potential to maximize his performance and succeed in relationships, in sports, at work etc, and at the same time increase his inner satisfaction (<http://theinnergame.com/>).

Sir John Whitmore was a professional racing driver and in his book *Coaching for performance* published for the first time in 1992 (Whitmore, 1996) he relies on Gallwey's inner game of our mind to develop further the concept of coaching. The coach's aim is to help the coachee remove or reduce the internal obstacles to his performance and lead him to achieving his goals. Whitmore is the founder of the well-established GROW model, where G stands for Goal, R for Reality, O for Options and W for What is to be done. It is worth noting that Whitmore puts priority on goal setting and not on the reality of the individual, as in this way the individual will be more creative, with stronger motives and not limited in his goal-setting by past performance.

The International Coach Federation (ICF) is the leading global organisation which advances coaching as a profession by setting high standards for the coaches and by providing accredited certifications. It has defined coaching as "partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential" (<https://coachfederation.org>). Moreover, the Association for Coaching (<https://www.associationforcoaching.com/>) defines coaching as "a facilitated, dialogic and reflective learning process that aims to raise the individuals (or teams) awareness, responsibility and choice (thinking and behavioural)".

On the whole, a coach perceives the coachee as an expert on his own life and has faith in him. The aim of the coaching process is to discover and make clear what the coachee wants to achieve, to support the process of the coachee gaining self-awareness, to explore options, to identify strategies, to elicit solutions and an action plan. The coachee should at all times feel responsible and accountable for his life and his choices. Through the transformative power of coaching and the relationship built between the coach and the coachee, the latter will unlock his potential and improve his life.

Thus, coaching refers to a process where a coach, through effective, powerful, open questions, facilitates a coachee to clarify goals and work on their attainment (Grant, 2003 *Principles of coaching*, Coaching skills' Whitmore, 1996). Having the support of a coach, the individual changes, learns, maximizes his potential for personal and professional growth, increases his self-awareness, evolves, brings the desired changes in his life, gets empowered and motivated, boosts his self-confidence (Kotter, 2001' Downey, 2001' Starr, 2008). Thus, the individual can make use of the qualifications, skills, competences, resources, strengths he possessed in order to achieve what he wants, having a coach next to him, whose role is to facilitate and expedite a process of growth and self-awareness using only open questions and

offering no advice (Downey, 2001). Coaching is not about teaching but about learning and developing meta-cognitive skills, and in particular “learning how to learn”.

It should be stressed out that coaching does not deal with the past but focuses on the future and on positive possibilities (Goldsmith, 2003; Whitmore, 1996). It is a non-directive intervention that has flourished enormously in the last thirty years in Western countries (America, Europe, Australia), addressing both the professional field of enterprises and the personal domain. Depending on the context, the underlying theory and the purpose, it can be called life coaching, executive coaching, leadership coaching, career coaching, confidence coaching, wellness coaching, health coaching, evidence-based coaching, solution-focused coaching, group coaching, educational coaching and so on.

Focusing on coaching for educators, this has been described as “a highly personalised form of professional learning that enhances learning within classrooms, teams, leadership, and even towards career progression.” (Munro, 2016). Having a coaching mindset, conversations are non-judgmental, growth oriented, less punitive and eventually empowering (Munro, 2016).

The National College for School Leadership (NCSL) in the United Kingdom has published as early as 2005 a manual (Creasy & Paterson, 2005:5) with the aims of setting coaching in the context of other educational developments, exploring underpinning principles for coaching, outlining key elements of coaching, identifying implications for school leaders, providing some practical ways for embedding a coaching culture in schools.

## 2. Differences between coaching and other interventions

In order to understand the true nature of coaching, the distinctions between coaching and other support professions can be outlined. Coaching is neither psychotherapy, nor counselling or consulting. In psychotherapy, a specially trained psychotherapist, who follows a particular method and psychological approach, goes back to the past of the individual and attempts to heal psychological problems of dysfunctions (Βαλάση, 2014). Coaching on the other hand does not deal with the past and is applied to mentally healthy individuals, focusing on non-clinical population. Furthermore, the coach does not offer advice or solutions to the person like a counsel, but instead believes that the individual himself is capable of finding solutions to the issues involved. A counsel will usually diagnose a problem himself and suggest solutions.

Additionally, coaching shares not only similarities with mentoring<sup>2</sup> but significant differences that are worth noting. Briefly, in mentoring, the mentor is usually an older and more experienced person who transfers his experience, knowledge, wisdom to a younger person who needs guidance and knowledge. In contrast, in coaching the coachee is considered to possess all the necessary elements (knowledge, experience, skills) to make informed decisions and the coach is the one to support him in this process without suggesting solutions or options.

What is more, in mentoring both parties work at the same field and the relationship is usually a long one, focusing on more holistic issues. In coaching, there is no need for the coach to be knowledgeable about the issues of the session. Also, sessions in coaching usually take place and are completed over a short period of time (Εθνικό Κέντρο Δημόσιας Διοίκησης και Αυτοδιοίκησης, 2016).

## 3. Principles behind the philosophy of coaching

The philosophy of coaching is based on certain principles that have been around for some thousands of years. Socrates, the Greek philosopher, had voiced the same things 2500 years

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<sup>2</sup> Mentoring originates from Greek mythology. Odysseus, when he was about to leave for Troy, entrusted his house and his son's education to his friend Mentor.

ago. The basis for the coach-coachee relationship is the Socratic questioning (Εθνικό Κέντρο Δημόσιας Διοίκησης και Αυτοδιοίκησης, 2016 Whitmore, 1996). Using powerful questions that elicited answers, Socrates could bring his interlocutor to the point of discovering for himself his desires and his potential. Asking open questions causes people to think for themselves, it promotes awareness and it encourages responsibility.

Other principles that underlie coaching are self-directed learning (Knowles theory of adult education), focusing on the future and the belief in a person's potential. Coaching does not exist as a separate scientific field, but has its roots on a multitude of disciplines such as neurosciences, humanitarian and natural sciences, sports (where the term coaching comes from), education, adult education and lifelong learning, philosophy, sociology, anthropology, management, NLP, counselling, and psychology, especially positive psychology and cognitive-behavioural approach (Theeboom et al., 2013).

The National College for Teaching and Leadership (formerly known as The National College for School Leadership), a British institution for the promotion of education, advocates that the coaching mindset shares common ground with the theory of psychologist Carl Rogers as far as human motivation and learner-centered education are concerned. Carl Rogers outlined the person-centred approach to learning and stressed "the importance of positive relationships in the development of human's concept of self" (National College for Teaching & Leadership, Empowering others: coaching and mentoring, 2013:6). He introduced the idea of "unconditional positive regard" in order to help others succeed and he emphasized the power of facilitating learning rather than teaching. Both of these notions are fundamental aspects of coaching.

At the same manual (National College for Teaching & Leadership, Empowering others: coaching and mentoring, 2013:7) coaching is related to Maslow's (the American humanistic psychologist) motivation theory and the human hierarchy of needs, the highest level of which is self-actualisation. Self-actualisation is "the desire to accomplish everything that one can, to become the most that one can be", and this concept is closely linked to coaching and its aim to "bring out the best in people". Furthermore, the personal and interpersonal skills of the coach resonate with the work of Goleman, Boyatzis and McKee (2009) who have drawn links between emotional intelligence and performance.

#### **4. Competences of a coach**

The core competences of an effective coach are described throughout the relevant literature and by the two leading organisations for coaching, the International Coach Federation (ICF, <https://coachfederation.org/core-competencies>) and the European Mentoring and Coaching Council (EMCC, <http://www.emccouncil.org/eu/en/quality/competences>). Among them are: active (empathetic) listening, focused attention, empathetic understanding without judgement, empathy, emotional intelligence, increased interpersonal and intrapersonal competences, the competence of building rapport with the coachee, the competence of offering positive feedback and feedforward, understanding, accepting and supporting the other, the development of internal motivation, the development of self-awareness, the facilitation of learning (Starr, 2008· Gallwey, 1986· Goleman, 1998· Whitmore, 1996· Whitworth et al. 1998).

Therefore, what makes a good coach is not only knowledge, but competences as well, both those which are innate and also those which the coach cultivates constantly. Moreover, further characteristics of the coach are intuition, ethics and abiding by a code of conduct, his beliefs, his values (such as integrity, commitment, honesty), belief that a person is capable of finding solutions and bringing results, equality, non-judgmental approach to the coachee (Starr, 2008). Starr believes that the attributes of a good coach fall within three key areas:

principles or beliefs, skills and knowledge, behaviour. Thus, a good coach is open and honest, impartial and objective, encouraging, challenging, realistic, able to clarify thoughts and goals of the coachee, constantly focusing on the coachee's objectives, enabling people to create change through learning, since coaching is a holistic approach to learning and change. Learning occurs through challenging the saboteur inside ourselves and moving past barriers and blocks to success. The coach uses non-directive language and builds a relationship of equality, openness and trust. The coachee has ownership and responsibility for his actions and the results and thus, is more willing to persist in attaining his goals.

The National College for School Leadership (NCSL) in the United Kingdom advocates that coaching is grounded in five key skills: (Creasy & Paterson, 2005:5)

- Establishing rapport and trust
- Listening for meaning
- Questioning for understanding
- Prompting action, reflection and learning
- Developing confidence and celebrating success

### **5. Benefits from coaching**

On a personal level, life coaching can help in cases where the individual wants to identify specific goals and targets in his life, formulate specific action plans, lower stress levels, find a better balance between professional and personal life, manage time more effectively, improve his relations with others, heighten self-awareness, improve his health and well-being, overcome limiting beliefs, take responsibility and accept accountability for his actions, enhance his internal motivation, build self-efficacy, identify his strengths, increase self-confidence, make better choices, take more effective decisions, improve problem-solving skills, improve communication (Griffiths, 2005 Starr, 2008).

In the professional field, coaching is performed either by an experienced coach or by the CEOs of the company in order to improve the effectiveness of the employees through focusing on their personal growth (Goleman, 2000).

The benefits and the beneficial effects of coaching on a business and personal level have been researched in the last 15 years and are mentioned both in the relevant literature and also in the research undertaken by the International Coach Federation for more than 10 years. Among the benefits are: a boost in self-confidence, improved relationships, development of communicative and interpersonal competences, enhanced performance of employees, well-being, better work/life balance, improved organisational and time management skills, increased commitment, better team working skills, higher resilience, advanced problem solving skills (Εθνικό Κέντρο Δημόσιας Διοίκησης και Αυτοδιοίκησης, 2016 Grant, 2013 ICF Organizational Coaching Study, Executive Summary, 2013 ICF Global Coaching Client Study, Executive Summary, April 2009 ICF Global Consumer Awareness Study, Executive Summary, December 2010 Jones et al., 2015 Theeboom et al., 2013). In a meta-analysis of 18 researches, Theeboom et al. (2013) support that coaching has positive results on mindfulness, which in turn promotes psychological well-being, since mindfulness allows people to get away from unhealthy thoughts and habits and heighten their self-regulation (Brown & Ryan, 2003). Grant et al. (2010) analyse the data from 55 studies on the outcomes of coaching and report reduction of anxiety and stress, enhanced self-efficacy, improved goal attainment, psychological well-being, life satisfaction, resilience. These outcomes persisted even after the coaching sessions were completed according to studies.

In education, coaching has been applied to teachers, students and school principals in various countries as a tool that brings about effective learning based on active participation and cooperation, in contrast to the old model of knowledge transference from teacher to student. In accordance with the competences of a good coach, as they have been delineated above, the teacher-coach facilitates the student to clarify goals, plan the necessary actions for

the accomplishment of the goals and get committed to succeed. There have been studies and research (in the United Kingdom and Australia) that prove the effectiveness of coaching as a tool and the benefits on students from its use on learning outcomes, the development of life skills and interpersonal skills, reduced depression and stress levels, enhanced optimism, well-being and resilience, increased goal attainment, increased levels of cognitive hardiness and hope, better study skills, increased motivation, commitment to goal attainment, increased cognitive hardiness, better exam performance etc (Campbell & Gardner, 2005; Devine et al., 2013; Grant, 2003; Grant et al. 2010; Green et al. 2007; Passmore and Brown, 2008).

In van Nieuwerburgh's review (2018) it is mentioned that coaching can play a very beneficial role in fulfilling the purpose of education as described in the Universal Declaration of Human Rights: the full development of human personality. He also gives a definition of educational coaching: "a one-to-one conversation focused on the enhancement of learning and development through increasing self-awareness and a sense of personal responsibility, where the coach facilitates the self-directed learning of the coachee through questioning, active listening, and appropriate challenge in a supportive and encouraging climate" (ibid, p. 17). He also believes that "educational coaching supports the development of responsibility, confidence, and self-esteem in learners through its non-directive approach" (ibid, p. 18).

The benefits of coaching are even more durable when there are more coaching sessions and that resonates with the adult education principles and the theory of transformative learning by Mezirow, who claims that deeper learning occurs when there are enough opportunities for critical reflection and experimentation. The educator functions as a facilitator and provocateur for the learner to change his beliefs and behaviours (Mezirow, 1997). The same happens in coaching between the coach and the coachee.

## 6. Adult education

Adult education has evolved as a separate scientific field for decades, its fundamental theories being the person-centered approach of Carl Rogers, Knowles' andragogy and self-directed learning, Kolb's experiential learning cycle, Mezirow's transformative learning theory, Freire's critical pedagogy for social change, Jarvis' holistic approach for adult education. All of them share common ground and common principles, such as active participation, building on existing knowledge and experience, differentiated learning, and the characteristics of adult learners (Κόκκος, 2005). Among those characteristics of the adult learner are the need to take advantage of prior knowledge and experience, the will for active participation, the tendency for self-directed learning, the specific expectations from adult education, the tendency to fulfil his potential and the inclination for self-determination (Κόκκος, 1999; Noyé & Piveteau, 1999; Rogers, 1999). The aims of adult education should include the development of accountability and autonomy of the adult learner according to the Council of Europe (Council Resolution on a renewed European agenda for adult learning, 2011/C 372/01»).

As for the prerequisites for adult learning (Courau, 2000; Κόκκος, 1999; Kokkos, 2015), meaning the conditions under which adults learn best and the most effective approach, these include setting clear goals, investigating and overcoming the barriers to learning. The roles of the adult educator are the ones of the facilitator, animator, supporter, guide, mediator (Courau, 2000; Κόκκος, 1999; Rogers, 1999). Emotional intelligence, empathy, communication skills, flexibility, self-knowledge, self-assessment, motivating, accepting and caring for students are among the characteristics of the adult educator (Κόκκος, 1999).

It seems that the field of adult education (theories, roles of the adult trainer, characteristics of the adult learners) shows similarities to the principles and philosophy of coaching, the core competences of a coach, the rapport between coach and coachee (Griffiths, 2005). For instance, making use of the learner's prior experience to achieve learning, self-

directed learning, the need of the adult learner to know exactly why he needs to learn something and how that connects to his everyday life, problem solving, differentiated learning according to preferred ways of learning, offering feedback from the adult educator, all these are simultaneously characteristics of adult education and the basis upon which a coach works with his coachee. In particular, Mezirow's theory of transformative learning is applicable in coaching which claims that through active learning, open questions and the communication that develops, it (coaching) transforms the way of thinking and behaving of the individual, it empowers the individual and it makes him capable of attaining goals and bringing the desired change (Griffiths, 2005). There is also a strong link between the coaching process (the coachee's need, the assessment of reality, the limiting beliefs, the goal setting, the commitment, the action, the change) and the phases of transformation as described by Mezirow: from the disorienting dilemma to building self-confidence in new roles and new competences.

Additional theories like Carl Rogers theory of facilitative learning (where the educator acts as a facilitator in the learner's journey to discovery learning and creates a safe environment of mutual trust) are closely connected to the roles and competences of a coach: build rapport, active listening, ask powerful questions, give positive feedback, help the coachee to establish goals, mobilize his inner resources for enhancing performance (Fazel, 2013). Moreover, Knowles' definition of self-directed learning (1975:18) corresponds to the way coaching sessions are conducted, since the coachee is the one who sets the agenda for the session and the coach helps him learn through Socratic questioning. The principle that adults come to education with numerous past experiences and existing knowledge (which the adult educator has to draw on) is closely linked to the fundamental principle in coaching that the coachee is creative, inventive and totally capable of producing solutions.

Kolb's experiential learning cycle (concrete experience, reflective observation, abstract conceptualisation, active experimentation) is applicable in coaching (Bush & Middlewood, 2005; Peel, 2005). Cox (2006) lists eight learning theories that are connected to coaching, among which are Knowles andragogy, Mezirow's transformational learning, Kolb's experiential learning, Bandura's self-efficacy, Maslow's motivation theory. More specifically, in order to make the association explicit, she creates a table where Knowles' six principles of andragogy are presented alongside some of the key elements of coaching (ibid, p. 196): self-directed learning (in coaching the agenda always lies with the coachee), vast wealth of life experiences to bring to learning (in coaching the client is naturally creative, resourceful, and whole), practical orientation and application in life (in coaching the client engages in activities that help him to meet his needs).

Vygotsky's social constructivist theories of learning have also been associated to coaching (Jameson, 2012; Wise & Cavazos, 2017). The teacher aims to extend the capability of the students through scaffolding support in the Zone of Proximal Development. The coach tries to push the coachee outside their comfort zone and into what he is capable of doing or learning or changing if he activates his potential (the Zone of Proximal Development).

## **7. Adult education and Second Chance Schools**

Among adult education institutions, Second Chance Schools follow non-formal education principles and there are a lot of innovative elements in their curriculum and operation. In Greece, Second Chance Schools are public schools of the Ministry of Education, offering compulsory education to adults (mostly from underprivileged, vulnerable groups) and awarding a title equivalent to that of Junior High School. Their philosophy (as described in the Regulations for the Organisation and Operation of Second Chance Schools, Εφημερίς της Κυβερνήσεως, 2014) is that they adopt a holistic approach to adult learners: "in order to succeed in their effort, the learners need to be supported in dealing with difficulties in other areas of their lives, like health, family, work, social environment". Another fundamental

principle has to do with the adult educators who teach there: “the complexity and the variety of educational needs require a multi-skilled education staff, who are capable of responding to the multiplexity of tasks they are assigned”. It is also mentioned that the adult educators at Second Chance Schools “follow pedagogical approaches that focus on the individual needs, interests and competences of the adult learners”. The teachers need to show genuine concern for their students’ welfare and future, have faith in the students’ potential and assist them to optimize performance.

The flexible curriculum and the holistic approach to the adult learners are the biggest challenges for those who teach at Second Chance Schools. The curriculum includes certain innovative elements in comparison with formal education. To begin with, these schools adopt the principle of multiliteracies and the core of their curriculum consists of eight literacies: Greek language, English language, arithmetic, social, science, environmental, computing, arts. Moreover, the curriculum includes workshops and projects, activities and events, participation in various programmes and counselling services. The latter involve two counsellors, one psychologist and one career counsellor that conduct individual or group sessions. The counsellors support the adult learners on issues having to do with their personal and social development, and aid persons or groups who have difficulty functioning effectively in the educational context. According to regulations, they are not allowed to use psychotherapy methods. The counsellors are also supporting the teachers and the headmaster of the school on issues having to do with their relation to the students.

As for the general aim of Second Chance Schools this is the holistic development of students and their active participation in economy, society, culture and their effective participation in the work field. The objectives are:

- completing compulsory education for adults
- reconnecting to education and training
- acquiring updated knowledge, skills and attitudes that will help the adult learners in their socio-economic inclusion and promotion. For example, fundamental objectives for skills acquisition are empowerment, development of self-awareness, transformation of beliefs and attitudes (in accordance with the principles of transformative learning), development of meta-cognitive skills (in particular “learning how to learn”, just like coaching does).
- enhancement of self-esteem
- support in inclusion or improvement of work place

## **8. Coaching and Second Chance Schools**

Based on what has been said so far, it seems that the philosophy of Second Chance Schools and the holistic approach they adopt to their adult learners are in accordance with the principles of coaching and the role of the coach. On the other hand, the way of operating and the inherent flexibility of these schools leave room for incorporating coaching practices as an alternative approach, as an additional tool for the multi-skilled adult educator.

As Whitmore states, coaching is a different way of viewing and treating people, which is more optimistic and suspends our limiting beliefs about people. Thus, we believe that the staff at Second Chance Schools (Headmaster, deputy Headmaster, teachers, counsellors) can implement coaching techniques and models in order to promote the personal and professional development of adult learners and the attainment of the goals of the Second Chance School. The Socratic questioning, the accountability, the action plan, the goal setting, the creation of self-awareness and self-confidence etc which form an integral part of the coaching process can be implemented both formally and informally. Formally, coaching can be implemented in the private sessions of counsellors, in workshops and projects, even during teaching the

literacies, for example the social literacy. Within the open, flexible curriculum of Second Chance Schools, there are opportunities for cooperation among the school staff, institutions and external partners, and specific coaching models can be applied, models that are easy to familiarize with, such as the GROW model.

Another proposal is to deliver a kind of educational coaching by organising and implementing workshops and seminars by experts for the teachers and the school leaders, as it happens in many educational institutions abroad. It is expected that such workshops will have similar benefits to those mentioned above, stress management, better communication, lower depression levels, increased optimism and well-being, resilience and ultimately better learning results.

Coaching can also contribute to the empowerment of the staff at Second Chance Schools and boost their competences, qualifications, attitudes, values, beliefs. It is true that the staff already have a theoretical background in adult education, and the fundamental knowledge and competences, so the use of the coaching method can easily be implemented after some related training.

There is also the possibility of the so called corridor coaching, where in their everyday school life contact with the learners, the teachers and the leaders discuss problems (unemployment, poverty, issues about work, family, health, psychology etc.) and try to assist the learners in dealing successfully with their problems. These problems have an immediate effect on their school life, on attending and completing successfully their studies and on their development afterwards. The potential benefits for all those involved will be various and significant. The Headmaster and the teachers will be supported in their job and in their roles as guides and animators, the effectiveness of teaching will improve, job satisfaction will increase, communication among individuals will be enriched, active participation will be enhanced.

What needs to be done is for coaching to be more widely known and to broaden the training on coaching already being offered by private and public bodies, such as the National Centre for Public Administration and Local Government, the University of Athens, the University of Ioannina and the University of the Aegean, which involve practicum, application of coaching methods at work and reflection on their effectiveness.

In conclusion, it's definitely worth trying to instil a coaching culture in educational settings and coaching can be viewed as an alternative, innovative approach that can be incorporated in the everyday practice of the staff at Second Chance Schools.

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## New Challenges in Counseling Process

### **Abstract:**

Into this essay we will try to elaborate the contemporary and complicated scientific field that arises for modern counselling. New ideas will be presented regarding methodology, especially about counselor's role, the recent concept of the therapeutic relationship and the tools that we use nowadays in our efforts to understand better and subsequently help people. Conceptual dilemmas like neutrality, intersubjectivity, self-reveal will be the primary focus of our work and we will examine how these concepts co-create a contemporary aspect of counselling.

**Key-words:** intersubjectivity, contemporary counselling, co-creation, mutuality

**Tsiakos Dimitrios<sup>3</sup>**

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<sup>3</sup> Corresponding-Address: Tsiakos Dimitrios, Psychologist – Scientific Director, Center for Contemporary Psychotherapy & Psychoanalysis. Email: [tsiakosdim@yahoo.com](mailto:tsiakosdim@yahoo.com)

## 1. Introduction

Today, we are at the beginning of the 21st century, that is, more than a century after the birth of psychotherapy, and if we observe the world, hardly we will be able to remember the past century. The changes are enormous in the political, social, cultural and technological fields. The world in which both the counselor and the patient live, love, work and shape their interactive relationship is uncertain and constantly changing. The way that both sexes regard themselves has changed dramatically. The collapse of regimes and the degeneration of narratives and ideologies has left a huge existential gap within modern fears and expectations are clearly transformed. At the same time, the belief that humanity can control both its life and nature has been inevitably erased. Our technology solves problems but at the same time creates others. The more we struggle for the "holy grey of happiness", the more we discover that it simply does not exist.

Considering the starting point of counseling, the genesis of the psychoanalytic thought, understanding of the human mind can easily be identified with the conceptualization of human interaction. Contemporary counseling denies the strictly deterministic dimension of human behavior and attributes complexity and reciprocity to human nature as the ultimate expression of psyche. Human knowledge is no longer considered as the unique way of understanding the truth. On the contrary, the cornerstone of contemporary approach is the acceptance of the relativity of the truth and the basic unit of human interaction is the exchange of their partial experienced realities. At the same time, the co-determination of environmental dimensions in the construction of the subjective identity of the individual is established by many researchers. Wachtel (2008), for example, states that the personal history of an individual's life and the relational, social and cultural contexts in which this life story is manifested are inseparable and mutually determinant.

Orfanos (2018) states that relational psychoanalysis is a contemporary and intensive form of psychotherapy because it places human relations at the center of motivation, psychopathology and treatment. According to the same author the primary focus of contemporary approaches is not the intrapsychic but the combination of the above with the interpersonal, because intrapsychic can be achieved through the internalization of interpersonal experiences.

In this context, the main differences of Contemporary Counseling concern conceptual and methodological differentiations in four main axes (concept of self, theory of counseling, influence of the counselor in the process - evolution of the counselling relationship and finally in the application techniques).

## 2. Conceptual understanding of self

Contemporary approach is far removed from the traditional static perception about the concept of self, that regarded individual as a structure which possesses a certain set of characteristics that totally express what we define as self. The difficulty about defining the concept of self has led many theorists to avoid using the term (Pervin & Oliver, 1999). According to the same theorists, current theoretical framework faces difficulties to attribute the complexity of the dimensions of the concept of self. Characteristically, it states "it is worth revisiting the view of the multiplicity or family of ourselves instead of the individual concept of ourselves that includes everything" (p. 653).

Contemporary theorists fully accept the multiplicity of self, regardless invoking terminologies such as "multiple self" or "multiple states of self" (Mitchell, 1991, Aron, 1991). Herzog (2010) emphatically points out that "whether we want to support the concept of multiple self or multiple "states of self", there is an acknowledgment that each person has multiple ways to exist and relate to others" (p. 2). Therefore, by accepting the complexity of

the above position, we are relatively exposed to the discovery and in some way to the identification of the actual self of the individual and obviously the above requires scientifically something more than the classical separation between true and false self (Winnicott, 1958).

Nowadays, modern vision places a successful balance between “multiple states of self” as the major issue of building a compact self. Bromberg (1996) believes that man's ability for authenticity and for self-esteem depends on the existence of a constant dialectic between the individual states of self, a dialectic that allows each of them to function perfectly without excluding communication and negotiation among the others. The same author while exploring the normal and abnormal development of the individual, proposes that when development takes place without major disturbances, then there is no awareness of the above-mentioned situations and their respective realities because the split parts of the self act as part of a healthy illusion of coherent identity. The inseparable relationship between these parts is indisputable, since each aspect is a part of a functional set, informed by the process of internal negotiation with the realities, values, influences and prospects of others. In practice, contemporary contemplation excludes the operation of one part of the self without the involvement of the other parties and considers that at any other moment the predominantly expressed side is in a dialectical relation to the complementary, involving conflicts and contradictions.

In the counseling act, this new focus on the complexity of self helps both to better understand the phenomenon of dissociation and to clarify the circumstances that highlight the main state of self. Instead of trying to teach counselors about what is the actual component of the person who appears or hides during the session, it is more clinical beneficial to use the mindful aspect of the “here and now”, the combination of the two selves in the therapeutic room and the interaction between them. The analysis of the phenomenon of self-disconnection has been studied extensively by many researchers but differs strongly from the purposes of this paper.

### **3. Theory of Counseling**

Considering the above it becomes progressively clear that there is now a shift from the classic one-dimensional attempt to find the unique and objective truth of the inner world, towards the adoption of a two-dimensional way of understanding the human experience.

In its classical form, counseling is based on reasoning, on the ability to think clearly and without illusions, and this purity is the greatest hope of man for knowledge, for progress and for happiness. Today, rationality is still our greatest hope, but ambitions are more moderate. Contemporary strive is about obtaining a safe and stable space, in which the patient can pursue an authentic, personal experience. Everything that takes place within the counseling room is a fact that occurs within a relationship and the meaning that is formed is determined by the person's characteristic motives in relation to his relationships with others. Inside the room is not only the counselor but also the patient.

Within this framework, constructivism came to argue that the observer plays a role in shaping, constructing, and organizing what is observed and further reinforced the interpersonal perspective. Contemporary counseling experience can only be conceptualized through the co-participation of the counselor. The counselor is no longer just a blank screen on which the person's fantasies and wishes are displayed.

Therapeutic neutrality does not suggest a flat, unresponsive, detached therapist who retains a rigid stance (Katz, 2010). Neutrality should be considered in light of social and cultural environmental factors influencing both counselor and client and creating a heavy impact on transference and counter transference issues. Greenberg (1986) summarizes that in “analytic stance, ‘neutrality’ seems pallid, failing to capture the intensity of the emotional experience

that clinical encounters are or should be" (p.92). He also states that the participation of the therapist to the formulation of the therapy is inevitable.

As the knowledge from being unique became pluralistic, from being absolute became coherent and from static and eternally ended being alternating and dynamic, there was a transformation about the influence that the individual accepts from the important persons of his life. The incorporation of psychological approaches such as the theory of object-oriented relationships, the psychology of the ego, the existential vision, promoted the attunement between counseling and modern society. Nowadays the "objective reality" is dominated by the existence of many perspectives on reality and the truth ceases to be an established and absolute dimension. Subjectivity today is omnipresent.

For example, the object relation theory has been an intermediary link in the history of counseling because it has attempted to emphasize the effects of inner objects (people and relationships with them) on the mental world and to offer a different dimension beyond the module theory. From this perspective, our daily contacts with others are just a scene on which a play is played, whose script was written much earlier. Young people just come to play the role of "objects" from our past, and so we can never see them complete, listen to their own words. Essentially, they highlight the beliefs and expectations of the past, and so the course of Modell (1984) states that although this theory refers to the relationship with the subject, it essentially retained the view of classical theory, as it "does not refer to the actual object but to the reproduction of the object in the mind".

We cannot equate "object relationships" with real people only through internalized proportions. Although our expectations of a relationship and of our inner objects play an important role in their relationship, relationships do not depend only on them. With this reasoning, we could be talking about any kind of relationship as we should constantly omit the equation that the real people and the others with whom they relate, also evaluate their energies, actions and senses as opposed to internalized objects. In fact the above mentioned objects are not people with their own subjectivity. They represent more accurately co-constructed constellations by our fantasies of our reality and their role in our lives is specific and predetermined.

Consequently, the change from the fact that there is a unique truth that the counselor knows in adopting a grid of subjective realities steadily sharpened the role of authority. The healer ceased to be just a canvas, and questions began to arise about what he knew. The viewpoint of a therapist, derived from his own theoretical background and from his own hopes and fears, is only one way, not the only way. Is this uncertainty a reason to become nihilistic or the basis for a different kind of knowledge?

According to contemporary psychotherapy, no. Instead, it is a solid foundation for laying the foundations and building a different kind of knowledge. For older generations of counselors the most important thing was to know and have the courage to know. The younger generations underline the value of not knowing and having the courage to endure it. As Mitchell (1993) points out, the analyst is like a portrait painter who does not simply paint what he sees, but brings to light what is the thing he sees. As a problem of objectivity, it is defined that as they paint the face of the other, the painters at the same time express their own sensibilities, their own subjectivity, and what they depict on the canvas is influenced by their personality.

Although there have been scattered appearances throughout history, the term relational psychotherapy and contemporary psychotherapy was introduced into the therapeutic language through the modern classical work, written by Greenberg and Mitchell (1983), which distinguished a model of movement / structure and a relationship model / structure of psychoanalysis. Partly as a result of the unprecedented and ongoing dialogue between the

major post-classical schools of analytical thinking, the boundary between psychoanalysts who regard psychic reality and what they perceive as observable reality has become more and more permeable. Therapists no longer distinguish between two distinct and clear areas of experience "within the mind" and "between people" (intra-psychic and interpersonal). What is meant by imagination and reality, and with the unconscious and conscious, has become more interesting and complex (Bromberg, 1993).

In conclusion, the conceptual evolution derived mainly from the interpersonal field mitigates the role in the mental development of the intra-psychic dimension, restricts the understanding of conflicts and essentially redefines the concepts of resistance, transfer, and the method of free correlation. This has important implications for theory and technique. Finally, the role of the unconscious is particularly affected (Bachant, Lynch, Richards, 1995).

#### **4. Counseling relationship (evolution and enrichment) and the contemporary role of the counselor**

Initially in Counseling Science there was an "one person" approach to the counseling process, ie the counselor was widely regarded as an observer of what "appears" or "unfolds" within the patient (Wachtel 1986, 2008) and although the counselor was speaking at times, his involvement was basically not understood as a dialogue, ie a two-way discussion between two people, but as an offer of interpretations of an internal monologue, emerging (often confused) by the patient's unconscious.

The counseling process was presented as a strictly intra-psychic phenomenon which the analyst could observe and interpret with a perspective outside the dialogue, working more as an observer than as a participant in the observer. This has changed. The voices that defended the fact that the counselor also has his own story, his own values, his own feelings, and his placement outside the counseling process, simply excludes many dimensions of the counseling relationship.

The modern relational approach perceives the relationship of counselor - patient through the continuing mutual influence in which both of them are influenced and systematically affected by each other. In this communication model the flow is affected in both directions with the relationship not being equal but mutual. Mutual influence does not imply equal influence and the counseling relationship can be mutual without being symmetrical. This relationship model has been heavily influenced by the maternal-infant research data of mutual influence proposed by Beebe and Lachmann (2003).

Adopting this view, Aron (1996) states that the central place in a relational, interpersonal model is the idea that the seemingly childish desires and conflicts revealed by the person's contacts with others are not only remnants of the past, artificially imposed on the therapeutic field, but reflections of the actual interactions and complexes, with one, the same counselor, with all his / her idiosyncratic, particular characteristics.

Ogden (1994) also mentions in a therapeutic context, the concept of the patient does not exist without its relation to the analyst concept and vice versa there is no analyst without his relationship with the patient. An example of this is the mother and the baby. The concept of maternity for a woman does not exist separately from baby. It is only through her relationship with her baby that maternity takes a real form and in parallel an infant does not exist without the relationship with the mother.

In the same style, Balint (1950) argued that the psychoanalytic situation where two individuals sit in the same room is a two-person experience and that therefore classical psychoanalytic theory, which is a "one person's" theory, is insufficient to capture the range of the mental phenomena that take place in this complex situation.

Considering all of the above-mentioned views it is more than obvious that the contemporary scientific approach to the interaction of counselor-consultant perceives binary and in a two dimension way the counseling relationship that each reaction, thought, desire and physical

behavior of the counselor has extensions and accordingly to corresponding aspects of consultant. Any attempt at one-sided understanding of the emotional world of the counselor and the effort of "charging" the uniqueness of his mental phenomena is an imperfect and scientifically myopic view.

Regarding the contemporary role of the counselor, there is a clear upgrading of his meaning in the ultimate therapeutic outcome. The elimination of neutrality and the understanding of the varied influence of the counselor's personality in the counseling relationship and consequently in the final result of the counseling process highlights the subjectivity of the counselor as the key component of the situation many times. In essence, how the counselor works and how he responds to his work is vital to psychotherapy, and changes in his role are those that have mostly determined the changes in counseling over the last period.

Aron (1991) emphasizes that if the analyst had to be a reasonable, relatively distant, neutral, anonymous observer-scientist, an "analytical instrument" then there is not enough room for the psychic reality or subjectivity of the analyst but only as a pathological, intrusive and wrong counter-transfer. Essentially, the very concept of inter-subjectivity has long been a point of friction for psychotherapists. For Frie & Reis, B. (2001), while the task of analysis is to understand the nature of the interaction between two subjectivities, thus underlining the importance of the counselor's subjectivity in the analytical process. However, there is not enough consensus on the definition and implications of the concept, and the researchers raise some questions. Does the subjectivity represent the individual within the counseling process? Is the subjectivity of the patient or counselor only one product of the interdisciplinary duality? Are the terms interpersonal and intrapersonal alterable and evolving? Is there a transversal theory or there are many?

Benjamin now uses the term inter-subjectivity, in particular, in recognizing the other as an "equivalent center of existence". In this respect, the analyst's contribution follows the healing value of fulfilling the responsibility for recognizing his contribution in analyzing the mutual recognition, acts, especially old traumas, and current struggles and power impediments (Benjamin, 1990, 2009a).

Ogden (1995), in turn, expanded this idea through his clinical concept of "analytic third" considering the inter-subjective analytical third as a third subject created by the unconscious interaction of the analyst and the patient. Ogden also elaborates how at the same time, the analyst and the patient and the patient and the analyst commit themselves to the practice of creating the analytical third party. The analytic process reflects the interplay of three subjectivities: that of the analyst, of the analysand, and of the analytic third. The analytic third, according to the same author (1994), "is a creation of the analyst and analysand, and at the same time the analyst and analysand (qua analyst and analysand) are created by the analytic third (there is no analyst, no analysand, and no analysis in the absence of the third)" p.16.

In summary, an inter-subjective view points out that from the beginning of life we are dependent on the creation of patterns of mutual regulation and recognition with others in order to develop. The experience and understanding of these patterns and the possible failures associated with them are at the heart of the counseling process. A basic, but often unstable, principle of the relationship is that for human interaction more or less common patterns of commitment are required, and when things go well, they create the sense of a legitimate world in which the intentions of the other are recognized (Benjamin, 2004, 2007).

## **5. Intervention techniques: new forms**

According to the new dimensions of technical intervention, the actual understanding of the role of the counselor as an active participant in the counseling process also means differences on the methodological level. The traditional silence and lack of response from the counselor that was previously defined as technically correct now is being questioned. Hoffman (1991) describes it as a stereotypical, stylized attitude of psychoanalytic undisturbed rest. Renik (1993) suggests that the expert who believes he has put aside his subjectivity to achieve empathy and deepening in patient experience is simply self-deceived. Even before the first session begins, there are things that have influenced both the counselor and the patient. How can the consultant be a white canvas for the patient's needs, since his appearance, the office space, even the office area, give him information before he can even maintain the neutral posture of ?

So self-disclosure is not an option, it is an inevitable event. What content does the consultant choose to comment on is an indication of what he considers important, and this in turn contributes to his or her preferences? If a patient is constantly dealing with the same subject, is it something that he is bothered by, or has he seen the interest he is giving to his counselor? Thus, the subjectivity of the expert has a substantial contribution to counseling, but the counselor should not only be aware of it but should also be open to it with the other (Renik, 1993).

In addition, the emotional transparency of the counselor is inevitable and therefore it is better to be permitted and recognized than to be suppressed. Contemporary counseling emphasizes subjectivity and mutual recognition as an integral part of self-development, and places the co-creation of the relationship as fundamental aspect of therapeutic change. Contemporary counselor while trying to experientially learn client to relate with others not as objects but as separate subjects is able to talk about his relationship and feelings within the counseling room. Within the framework we analyze, there is an emphasis on the present and not on the past, with almost exclusive attention to the "here and now" relationship between the two, which further reduces the role of interpretation (Mitchell, 1998). Patient and analyst, together construct a common reality and consensually create its meaning (Hoffman, 1991). However, life is dominated by the predominant need of balance, and occupying the counseling room with excessive expression of the counselor's feelings would lead to penetration into the patient's psychological space and consequently to the loss of exploration of his experience.

Regarding methodological issues, the technique is a matter of specifying how the analyst should participate and how the framework may facilitate that participation. Federici-Nebbiosi (2007) suggests that the function of the analytic interchange is more vital than the analytic structure itself and that boundaries in therapy can be transformed, under some consideration, to different ways with respect to the analyst's personal therapeutic style.

Hoffman also (1983) disputed what he called "the patient's naive fallacy", the idea that the interviewee receives literally and without reaction the words and behavior of his counselor. He stressed that advisors know that the psychology of the specialist is no less complicated than that of their own, and therefore they themselves can perceive that counselor is not a carrier of an interpretation outside the interpersonal process. On the contrary, what is happening is that my reality and your reality affect one another and how this can lead to a better reading of what is happening. How can we help to better understand the latter, how can we convince our patients how they themselves affect the conditions of their relationships if we deny it to our relationship with them?

Chused also (2012) proposes that the tendency of the patient to elevate the therapist to the realm of invulnerability is understandable and necessary for the place of the essential illusion that successful therapy demands. Therapists, however, need to be alerted for their colluded parts and need to diverse them in intersubjective tools that promote exploration and understanding.

## 6. Conclusions

From all the above it is evident that contemporary counselling has changed a lot and inevitably follows the demands and serves the scopes of the modern way of living. Major aspects of the evolution of counselling are the internalizations of concepts like co-creation, mutual reciprocation, intersubjectivity and interchange of the multiplicity of minds. The cornerstone of the new "golden age" of counselling is built upon the concept of relationship.

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## Psychomotor Development: A Review of the Literature

### **Abstract:**

The following review is concerned to present the main theories of psychomotor development and the evolutionary hierarchy of the cognitive, emotional and motor skills from the moment of birth of an individual and in all aspects of the developmental period until adulthood and completeness. It also mentioned the theories formulated over time, based on the main characteristics of an individual. Initially looking at individual reflex reactions as a newborn and later on various assessments of reactions during infancy, early childhood and childhood, to determine the stage of psychomotor development, to allow timely intervention in case of deviations from normal levels. The research produced many articles from which the following were chosen finally for this review due to their interest. Also, were mentioned the stages of psychomotor development, which must be taken into consideration by every teacher, physical special education educator, as the educational program will be based on the assessment of the developmental level, as well as in the factors that may affect it.

**Key Words:** psychomotor, development, education, stages, motor skills

**Stafylidis Andreas<sup>1</sup> and Stafylidis Charalampos<sup>2</sup>**

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<sup>1</sup> Corresponding-Address: Stafylidis Andreas Faculty of Physical Education and Sports Science, Aristotle University of Thessaloniki, Thessaloniki, Greece, email: [andreas7stafy@gmail.com](mailto:andreas7stafy@gmail.com)

<sup>2</sup> Corresponding-Address: Stafylidis Charalampos Faculty of Physical Education and Sports Science, Democritus University of Thrace, Komotini, Greece, email: [xarisstaf@gmail.com](mailto:xarisstaf@gmail.com)

## 1. Introduction

Psychomotor development is the gradual appearance of mental, emotional and motor skills from the moment in which an individual is born, during the whole developmental stages, until the human organism reaches wholeness (Aggelopoulou - Sakantami, 2004). The growth areas include the emotional, the mental and motor sector. In the mobility sector, in particular, the development of some main motor skills begins with the onset of life and the emergence of various primordial reflexes, for example, the reflex of grabbing (Holt, 1977).

Following the developmental phase, from primitive reflexes to the development of the motor skills of the individual, some kinetic patterns are presented such as walking, running, jumping and landing in two legs, jumping and landing on one leg, kicking, the throwing, until the appearance of fine and gross motor skill, the precision and coordination of movements by the individual. In the emotional field, the interaction from the first years and months of life occurs through grimaces, laughter, crying, eye contact, until the full emotional development and behavior that takes place during the developmental phase in childhood, adolescence, and adulthood (Early Child Care Research Network, 2003).

As far as the mental sector concerned, the development of perception, memory, thinking, the process of problem-solving and decision making throughout the developmental period, up to adulthood, requires the interaction between the individual with the environmental demands. This way the individual could understand and adapt to the surrounding environmental requirements, in each particular time (Aggelopoulou-Sakantami, 2004).

The individual directs from reflective movement to elementary and main motor skills to completed and specialized movement. Alberti (1986) also mentions as psychomotor development all the external motor skills that conclude the kinetic expression, the expressiveness of the mental condition of the individual, the kinetic and the emotional nature (Lubans, Morgan, Cliff, Barnett, & Okely, 2010). Emphasis is also placed on the required neuromuscular coordination for the manifestation of such skills as well as for the required control and usage of objects. Psychomotor development in education is defined as an individualized approach to kinetic education and was linked to the developmental level by each child. There are significant experiential motor activities also through educational activities and games (Zimmer, 2007).

According to Aggelopoulou-Sakantami (2004), the stages of psychomotor development are considered as a necessary resource by the educator and especially for the physical education teacher to define the Educational Program based on the individual needs of each child, taking into consideration the developmental stage and level. These stages conclude body knowledge, acquaintance with space, balance, obliquity, and orientation in space. The child could perceive an individual body image in the space (Aggelopoulou-Sakantami, 2004). It is advisable to investigate several factors that may impact psychomotor development.

## 2. Methods

The bibliography for this review was searched electronically on the Google Scholar and the Scopus database in articles and titles of scientific journals in the topic area of psychomotor development. The research produced many articles from which the following articles had chosen on account of their interest. It has been investigated the relatively literature on the scientific field of psychomotor development. Research was also done in Greek language books, in order to investigate the areas and stages of smooth psychomotor development and kinetic evolution, as well as the parameters that affect it. Psychomotor development, stages, and motor skills were the keywords that have been used for the research.

### 3. Results

A review published by Pin, Eldridge, & Galea, (2007) examined the relationship between psychomotor development and the role of the sleeping way that is chosen by the individual during sleeping. Sher (2005) found no correlation between sleep-awakening patterns or sleeping difficulties and the achievements of mobility in infants during the first year of life. Other authors, however, reported significant correlations in motor growth and sleep. Freudigman & Thoman (1993) showed that, even from the first day of the life of an individual, with the increase of the average sleeping period and the reduction of the sleeping period to the awakening, lower ratings in the kinetic sector were caused. Anders, Keener, & Kraemer, (1985) found that babies who were more alert at birth had better attribution in psychomotor measurements.

In the case of infant sleep and cognitive or behavioral development, research maybe is important, given the relatively high pediatric prevalence of cognitive and behavioral deficits that entail significant long-term costs for individuals and society, it is understood that early diagnosis of sleep-related problems can be a useful tool for targeted prevention and timely intervention (Riethmuller, Jones, & Okely, 2009). Psychomotor growth is related to the combination of the effects of nature and upbringing.

As the development of the individual is not complete at the time of birth, it is important to create the conditions for interaction with the external environment (Sanhueza, 2006). Cornish, McMahon, Ungerer, Barnett, Kowalenko, & Tennant, (2005) showed that the effects of chronic depression on the mother do not affect the development of the language skills. Taking into account the limited range of language skills at the typical age of 12 months, language development could be better evaluated in the later life of infants when these skills, especially when expressiveness through language, are more developed. No differences in the behavior of infants were found yet, among children with mothers with depression.

This behavior, of course, was evaluated during a developmental evaluation, in interaction with the examiner, and it is likely that the behavior of infants at home with their mothers was different. Future studies using observation of infant behavior in their home environment while interacting with their mothers can help to clarify these unexpected results (Cornish et al., 2005). Early intervention has always had positive results, especially when it comes to the field of psychomotor development. It has been shown that infants in the experimental group, despite similar types of the living environment and similar developmental indicators, during the test, due to the intervention developed higher skills and motor skills than the other group. It has been found that the need for love and secure relationships continues throughout life, but it is of paramount importance in the early years because this is the time when the child develops self-esteem.

According to Sharma and Nagar (2009), another factor influencing levels of psychomotor development is the home environment and the ability of the infant. Thus, there is the need to provide appropriate knowledge about the impact of the domestic environment on the psychomotor development of infants so that mothers are careful enough to provide an appropriate and wide range of motoring experiences to better develop children in the psychomotor sector (Sharma and Nagar 2009). The role of preschool education in Costa, Abelairas-Gomez, Arufe-Giráldez, Pazos-Couto, & Barcala-Furelos, (2015) is fundamental to the child development process.

At this stage, quality and teaching practices should encourage children, taking into account their characteristics and needs, to help them acquire many skills during their developmental phase. Emphasis placed on the importance of the Physical Education course by the researchers and the role of the Physical Education Teacher is to develop a mobility

program appropriate to each developmental stage for the psychomotor development of preschool children, as it increases their overall development (Costa et al., 2015).

According to Aukett, Parks, Scott, & Wharton, (1986) iron deficiency is not the only factor in the slower development of children living in minority groups, it is at least possible to be easily addressed. The consequences for health services are significant. This is why researchers believe that iron deficiency in young children should be sought out and treated.

The data presented by Walker et al., (2007) on the dangers faced by young children in developing countries restrict their development. The number of children affected is enormous, reaching 40-50% of children under 5 in some countries (Walker et al., 2007). Guxens et al., (2014) have discovered a relationship between the levels of air pollution that may be exposed to mother during pregnancy, particularly NO<sub>2</sub>, for which motor traffic is being responsible and psychomotor development between the ages of 1 and 6. The cognitive development measured at similar ages was not found to be related to air pollution during pregnancy. Finally, the prenatal use of marijuana and tobacco by the candidate mothers resulted in negative consequences for the intellectual development phase (Richardson, Day, & Goldschmidt, 1995).

#### **4. Discussion**

The areas of psychomotor development are a broad range of behaviors, including behavioral, mental, motor skills, including gross and thick motor skills, adaptability - socialization, self-service skills also speech and hearing. So the conditions for a smooth psychomotor development could be defined, which is an intact and mature nervous system, typical intelligence, normal levels of vision and hearing, as well as lasting educational and social support throughout the development phase up to the adulthood. In this way, the development of the child in the psychomotor sector is achieved by the appearance and evaluation of the first primitive reflexes to the acquisition of basic motor skills and functions till the completeness and the acquisition by the individual of the most specialized motor skills and standards fully controlled by the individual depending on the strength, precision and plasticity of the movements (Chaddock-Heyman et al., 2013).

There are also several factors that can affect the levels of psychomotor development. Initially, sleeping levels may affect the motoring sector. Interaction with the environment and the opportunities for the child to interact with it also play an important role. Early and timeliness intervention plays a key role in psychomotor development levels, as well as the opportunities for motor development that have presented to the child in the living environment of the home.

Particular emphasis is also placed on the subject of education where a teacher of Physical Education should provide students with appropriate motor standards and motor skills (Costa et al., 2015). Finally, children in developing countries have a large percentage of the risk of their growth being reduced, but also the levels of polluted air correlate with levels of psychomotor development.

Finally, the children born from mothers with a history of depression had no problems with the psychomotor development. Instead, the use of marijuana and tobacco from the candidate mothers maybe harm the mental development of children (Cornish, et al., 2005). Psychomotor growth has been an area of concern for the research community for several decades and includes many professional groups involved in childhood, such as doctors, nurses, teachers, and physical education teachers. It would be desirable to emphasize the importance of timely and early informing but also the specialization of teachers on the detection of psychomotor development stages, given the importance of timely and early intervention, according to Sharma and Nagar (2009) and Costa et al., (2015). Finally, there could also be a qualified Physical Education teacher to implement psychomotor education and development training programs tailored to each individual developmental level, which

naturally requires continuous updating of the knowledge by the teacher.

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## Primary Health Care in chronic diseases

### **Abstract**

Work has the title of primary health care in chronic diseases. The concept of primary health care is analyzed and the quality of the services it provides as well as the basic objectives are described.

They analyze the problems of primary health care in Greece and indicate what chronic diseases are and how they are treated. Finally, it includes proposals and conclusions of primary health care.

**Key-words:** Primary Health Care, Chronic Diseases, Targets of P.C., Prevention to Primary Care Treatment and Primary Health Care

**Themelidou Maria<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: Themelidou Maria, Health visitor, Anticancer Oncological Hospital, Hospital Agios-Savvas, Email: [marithemel@gmail.com](mailto:marithemel@gmail.com)

## 1. Importation

Society and needs of citizens are constantly changing. On the one hand, the increasing number of illnesses and, on the other, the state's failure to meet the health costs, led to the need for changes in the health system.

The concept of Primary Health Care emerged in 1978 at the International Conference on Primary Health Care and the Unicef in Kazakhstan. Basically the Primary Health Care is the provision of out-patient health services to people and generally to society as a whole.

The health system is not only aimed at health care but also in improving the health level and in upgrading the level of social well-being of the citizens for this and the primary one is an important part of the health system. Some of its services are diagnosis treatment, care for children and adults and counseling and referral to other health professionals. (Taylor, et al., 2006) The Primary Health Care level contributes substantially to improving the health and the bio-economic level of the population. (Papamixos et.al. 2011)

The purpose of the primary one is to provide care to the population as a whole, to implement health and prevention programs of the Ministry of Health, to monitor the patients in order to recuperate even after leaving the hospital, to provide first aid and other types of hospitalization until the patient arrives at the hospital to take preventive medicine, to research medical and epidemiological issues, to provide health services in schools, Provide social care services, provide drug recipients and collaborate with local authorities and local health practitioners for a more efficient primary health care and prevention offer.

Primary Health Care in the Healthcare System can offer a great deal of satisfaction to the population from the services provided, a better level of health and, at the same time, low spending and lower drug use. (Souliotis et al., 2003) It is reasonable for modern societies to seek high quality medical care and care. (Yfantopoulos, 2003)

According to the World Health Organization (2008), the regeneration of the health system can be achieved through the regeneration of First Health and with the interventions:

- Universal insurance coverage of the population
- Human-centered organization of health care services
- Public policies that promote health
- Participatory Leadership Required for implementation with Primary Health Care in the health services

Primary Care Health Care has four main features and three others that are linked to the original. The initial features are the provision of "first-contact" services, ongoing care, coordinate care and integrated care. The following three features are family-oriented care, community-based care and care that are culturally adequate. (Shi, et al., 2012)

## 2. Purpose

The primary health care goal is to provide care for the entire population and to implement health programs.

## 3. Methods

Data was collected through bibliography and internet search (Pub med, Medline, Google Scholar) 1196-2016. Greek and English articles have been selected that refer to Primary Health Care and the treatment of chronic diseases and the proposals to create a modern Primary Health Care system. Brief review of chart 1.

## 4. Discussion/ Conclusion

Primary Care Health Care in the health system can offer a great deal of satisfaction to the population from the services provided.

## 5. Primary Health Care in Chronic Diseases

Quality in health services includes the concept of effectiveness, efficiency, accessibility, safety and technicalness in order to provide the patient with appropriate care. It is reasonable that the provision of the best available services for the patient should be provided in the appropriate part, at the appropriate time and in the appropriate manner. (Papakostidis & Tsoukalas, 2012)

The concept of quality of health has a different meaning among patients and health professionals. For patients, quality in health services means direct access to the services they want and which are appropriate. The concept of quality of health has a different meaning among patients and health professionals. For patients, quality in health services means direct access to the services they want and which are appropriate. Professional quality in health services is that they have the appropriate education and appropriate knowledge to provide patients with the services they need. From the side of management to the other, it means effective provision of care but with some economic benefit. (Papakostidis & Tsoukalas 2012)

Primary Health Care is a part of the health system and is the first contact of individuals with the National Health System, being the primary element of a continuous health care process (Kyriopoulos & Philatelis, 1996). The aim is to reduce health inequalities and improve communication methods for people to participate in the promotion of health, which is based on three principles. (Pierrakos, 2008):

- Equity in the distribution of health services and all factors affecting health.
- Participation of the community and individuals in decisions affecting health.
- Health planning focuses on prevention to promote the health of all individuals.

Primary Health Services are about people and families, the population and the community, and the natural and structured environment. So we have:

## 6. People and Families

- Systematic monitoring of health.
- Clinical treatment - management of incidents (urgent, extraordinary, chronic health problems, mental health in connection with the antisense structures).
- Social care
- Care at home
- Estimation and management of disease risk and high prevalence situations.
- Physical restoration and social reintegration
- Healthcare

## 7 Population and Community

- Assessing the health needs of the community
- Design and implementation of programs (prevention of health, promotion of health)

## 8. Natural and Structured Environment

- Assessment and intervention on living conditions in the home, neighborhood, work, school.

To develop properly all of the above requires proper development of the health map and proper operation of the electronic envelope in order to have a unified health system. The objectives of Primary Health Care should be defined based on the health needs of the

population. Account must also be taken of the local, cultural, environmental and geographical particularities of the population. (Antoniadou, et. al, 2015)

The Greek system consists of three components. The public health system responsible for public hospitals and health centers. The insurance scheme paid by employees and employers. In Greece Primary Care presents many problems in the provision of health services. There is no planning and coordination in the development, production and provision of health services. Also, there are staff shortages in medical, nursing and technical staff. Doctors have no incentive to move faster the production process because of the low wages they receive.

Another problem is the lack of computerization of primary health services and the lack of medical records of each patient who would assist the doctors' work. In addition, there are serious deficiencies in the logistics infrastructure and this is limited to the services offered. Finally, one important problem is the lack of prescription that hinders the work of all employees. (Sotiriadou, et al, 2016).

**Thus, we could say that some of the basic negative features of Primary Health in Greece are:**

- Exclusive employment of general / family doctors and primary health care doctors in the care.
- Non-use of guidelines by general practitioners
- Absorption of prescription
- Little participation in housekeeping
- Do not engage in interventions to prevent specific chronic illnesses with a view to securing public health.
- Malfunction of diagnosing psychiatric disorders and other unidentified diseases. (Souliotis & Lionis, 2013)

The major problems are identified in some areas. First of all, in the government that healthcare is fragmented both in funding and in provision. In the level of private spending on the phenomena of excessive consumption of medicaments and diagnostic procedures, the inequalities in the health potential of many specialized doctors and few family members. Lastly, strong traditional hospital and dedicated care and the lack and implementation of political decisions. (Souliotis et.al, 2013) It is scientifically recorded that the Greek health system is unable to meet the needs of its citizens for a medical visit in relation to the other countries of the European Union. (Souliotis et.al, 2013)

Long-term illnesses are complicated and it is therefore difficult to create a definition for them. The US National Chronic Detection Committee defines chronic disease as a deterioration or deviation from the physiological state. This disease may be permanent may leave any chance or may leave irreversible pathological changes that may require monitoring or care. (Yassavopoulos & Gournes, 2008).

The chronic illness can result either from an accident or sickness, while requiring long-term follow-up, medical visits. The chronic disease lasts for a lifetime, there is a case of recurrence, it is permanent, and the patient needs a special education to be able to treat it.

Long-term illnesses are increasingly increasing in Europe for many reasons, but mainly because of the way people live. They represent the most important part of disease anxiety and are responsible for 86% of all deaths. EU Health Ministers in 2010 started an effort to tackle chronic illnesses. In 2012/13 the committee consulted with the EU countries and main stakeholders. (European Commission, 2014).

The first conference on chronic diseases was held in 2014. The next EU program (2008-2013) aimed at promoting health, preventing and early diagnosis of chronic diseases. Chronic

illnesses such as diabetes can cause other problems such as heart disease, nerve damage, foot problems, stroke, vision problems, etc. (European Commission, 2014).

**The chronic diseases include:**

- haematological complaints
- respiratory complaints
- circulatory system disorders
- dermatological diseases
- mental disturbances
- nephrological
- oncological complaints

For the first time in Greece, under the "Administrative Reform 2007-2013" program, guidelines have been set up to deal with the most frequent chronic illnesses. The project has been developed and is titled "Development of 13 Guideline Guidelines for the Management of the Most Common Illness and Health Situations in First-line Health Care". These guidelines have been set up following a large-scale investigation against chronic illnesses and after many health-related discussions in the First Degree. These general directives are the result of a systematic search for information and the views of doctors, nurses and patients.

These directives concern one year of illness. The years studied have been osteoporosis, heart failure, coronary artery disease, hypertension, dyslipidaemia, chronic obstructive pulmonary disease, asthma, diabetes mellitus, depression. Each of these chronic diseases has undertaken to study a different group. These studies include, for each of the above diseases, an introduction, the definition and the basics of each disease, the clinical inquiry questions related to the way the disease is treated, and the final recommendations for the chronic illness. All the information provided in these directives are documented and come into existence. Research has shown that an integrated approach to treating patients with chronic disease programs can have an active effect on patients suffering from chronic illnesses and especially from diabetes, hypotension and anxiety. (Isherwood & Kalucy, 2009).

Increasing the number of patients with chronic illnesses is a challenge for healthcare systems. The model of chronic care suggests immediate remodeling of chronic illness services to improve patient health. In order to respond to the complexities and the constant needs of the patients, chronic disease prevention and management has been included as a key feature of primary care in order to achieve better outcomes, greater efficiency and improved access to services compared to other sectors. The aim of this study is to assess the adaptation and implementation of an intervention involving the introduction of chronic disease prevention and the management of services in primary health care.

Research has shown that with the prevention of chronic illnesses from Primary Health Care, the patients improved, strengthened and could more easily help their own. Together with improving their quality of life and appropriate psychological support, patients suffering from chronic illnesses are led to a reduction in the risk factors for their health in the long term. The results are also positive at the level of organization of centers providing primary health care. There is better and more coordinated provision of services, better ways and mechanisms for monitoring illnesses suffering from chronic illnesses and enhanced interprofessional cooperation. (Fortin et al, 2013)

The Center for Disease Control and Prevention (CDC) on its website presents the number of deaths each year of chronic illnesses in order to sensitize, highlight the seriousness of the situation and persuade citizens and doctors to participate in the prevention of chronic

illnesses. It is very important to manage patients who suffer from chronic diseases correctly in order to reduce the negative consequences. Most patients visit their doctor only if they have a specific problem. And most doctors are able to successfully solve this problem. One of the most effective prevention measures is organizing and designing visits to the doctor at regular intervals so that it can control the progression of the patient's health condition and prevent any disease. (Bodenheimer et al, 2002)

Chronic illnesses are the main cause of morbidity and mortality worldwide. According to the World Health Organization, 75% of the population has some pathological condition, and in 2002 four of the most important chronic diseases (cardiovascular, diabetes, cancer, and chronic obstructive pulmonary disease) caused 30 million deaths worldwide. Most health systems are designed to deal with and treat urgency. But in recent years in America 78% of financial resources have been spent on the care of patients suffering from chronic diseases. (Lyonis, 2010)

In the United Kingdom, according to the most recent data, 80% of medical visits relate to chronic illnesses. Patients with a chronic illness cover 60% of hospital beds each year. Surveys have also shown that the cost of hospitalization for patients over one year of illness is six times higher than for patients with only one.

Most chronic diseases are due to some key factors such as poor nutrition, smoking, alcohol, poor physical condition, etc. It seems that the development of technology and the economy has fought off infectious diseases but has favored the development of chronic illnesses due mainly to the way of life. The number of chronic diseases is growing worrying and especially in developing countries where there is neither the resources nor the experience to deal with. Over the next two decades, chronic illnesses are estimated to have an increase of 120-140%. (Berwick, 2002)

The number of people suffering from chronic diseases is constantly increasing but there is still no solution to this global phenomenon. Different organizations involved in governments, the World Health Organization, governmental organizations and the private sector have not been able to create comprehensive programs for the prevention and treatment of chronic disease. The public sector cannot manage patients with chronic illnesses properly, and only the private sector can absorb a proportion of these patients, but the cost of hospitalization does not allow many patients suffering from chronic illnesses to receive the appropriate treatment. The public sector can not manage patients with chronic illnesses properly, and only the private sector can absorb a proportion of these patients, but the cost of hospitalization does not allow many patients suffering from chronic illnesses to receive the appropriate treatment. The health system should be transformed so that it can cope with this great challenge to effectively prevent and cure chronic diseases. (Wolff et al, 2002)

Primary Health Care and doctors working with it have the greatest responsibility for dealing with chronic illnesses as well as health professionals who come into contact with patients who have suffered from a chronic illness. Thus, occupational health has the greatest share of responsibility for the effective approach of people suffering from chronic illnesses. An action plan to treat patients with chronic illnesses from Primary Care includes prevention, proper treatment of patients, improving the life style of people suffering from chronic illness as well as reducing the cost of their hospitalization. (Fleck, 2004)

A strategy for the management of chronic disease is the primary prevention strategy that aims to prevent the occurrence of some chronic illness. Prevention is the adoption of healthier habits. Yearly illnesses most often are linked and exacerbated by the way people live. Another strategy is that of secondary prevention to mitigate their impact and reduce the severity and numbers of their complications. Regular screening of patients with chronic illness must be carried out regularly and, in addition, the patient should receive the appropriate treatment so as to put their illness under control.

Another way to manage doctors patients suffering from chronic diseases is to separate patients into groups. Each group of people has different needs and therefore needs different treatment from doctors. The difficult part in managing patients suffering from chronic diseases is not the medication to follow. These patients should receive a different care for their empowerment and support. Primary Care must provide organized and not opportunistic, and there should be various programs to prevent the complications of the most important chronic illnesses. The patient should be informed and actively involved in the decision-making process to deal with the illness so that the patient is empowered. (Hawkes, 2002)

There are obstacles that hinder the effective treatment of chronic illnesses from Primary Care Health Care. One of these is the small development of the electronic health envelope so that the doctor can see the patient's history all the time. Even in the case of the electronic dossier the patients do not use it enough. There is a fear that personal data will not be lost. Also, there are no systems to help with clinical decisions. Doctors are often reluctant with new changes and resistances. Many times there are large staff shortages and nurses are not fully integrated into a primary care team due to the doctors' culture. Primary health professionals can not co-operate properly, and many times they are in conflict. Daily care of Primary Health is based on the medical-centric mode. (Mariolis et al, 2004). The time spent by the doctor on each patient is very small and is estimated at about 10 minutes. The mindset of the health system because it reduces patient waiting time rewards fast-acting doctors. This may be good for urgent situations, but it is certainly not good for patients suffering from chronic diseases. (Leeder et al, 2004). Primary doctors are not trained to handle the databases of patients with chronic illnesses, with the result that patients who have suffered from a certain period of time suffer from something that could have been predicted and eliminated. In the case of chronic illnesses, the patient has a complete picture of his condition and ultimately he is going to take the serious decisions about his health. The physician informs and guides the patient as a more knowledgeable subject. (Hawkes, 2002).

Souliotis (2014) deals with the development of the concept of primary health care, its principles, priorities and organizational structure in the World Health Organization since 1978, with the current shift in primary care to include the provision of services to all health care sectors. It assesses the specific features of primary care such as the decentralization of service provision, underlining its benefits in terms of achieving equilibrium and managing health expenditure with available resources to meet the health needs of the population. This article also looks at the basic organization of health care and its functions as well as modern trends, such as performance-based compensation. It focuses on chronic illnesses due to the increase in prevalence. It focuses on chronic illnesses due to the increase in prevalence and the increase in costs. Overall, it builds a case for expanding the primary health care agenda to cover mental disorders (Souliotis, 2014)

According to the Staurou (2014), tackling chronic diseases is a global challenge and there are major concerns in developing and developed societies, mainly due to aging populations. For patients suffering from chronic illnesses, there are various disease management programs and patient education programs to manage the illness they suffer from. The article aims to present basic concepts of self-management of the disease, to know the current situation and to discuss and support the role of nursing in the patient's education in self-management of the disease. The conclusions that emerged from the research are that the role of the nurse is important because it helps to acquire patient's self-care skills. Integrated self-management programs with the participation of nurses in the design, implementation and evaluation of the results will offer significant benefit to the patient as well as professional benefit to the nurses. (Staurou, 2014)

Most of the current illnesses that people face today are chronic and because they are not being treated directly, the patient should be able to control them. Although many people suffer from some years of illness, they can have a "normal life" with the appropriate medication. Both patients and their families face psychological problems. This article aims to investigate all the factors that interact with the psychology of the individual during the occurrence of a chronic illness, to indicate all the ways of adapting to the new situation, and to highlight the nursing interventions that contribute positively to the acceptance of the chronic illness. It emphasizes that the education of patients with chronic illnesses is very important so as to accept the changes required in their life style. (Yassavopoulos & Gourni, 2008)

The importance of counseling in their compliance with the treatment scheme is aimed at exploring the role of counseling to help reconcile older people with their drugs. A high proportion of the elderly population with chronic health problems have difficulty complying with the required medication or changes in the way of life despite the fact that their health status is improved. The results stated that the maintenance of elderly treatment is related to education, information, relationship between patients and health professionals, as well as feedback and self-management. The counseling relationship between nursing and elderly improves compliance with medication. The needs of the elderly for counseling are very large. Thus the elderly have positive feelings for nursing staff when it provides them with adequate information and proper direction of their medication. (Phason - Barca & Kelesi - Stavropoulos, 2015)

The Bodenheim T., Lorigk and the Holman H. make sense for the self-management of patients with chronic illnesses in Primary Health Care. According to this, a patient who has a chronic illness should cooperate with doctors and participate in cooperative care. The patient must be trained so that he can receive the medication in order to be able to live the best quality of life with his chronic illness. Traditional patient education offers information and technical skills and self-management training, and also teaches problem-solving skills.

A central idea of self-management is self-efficacy and trust to conduct behavior and achieve a goal. Research suggests that self-management learning programs are more effective than information only for the education of patients and the improvement of clinical outcomes. In some cases, self-management training improves the results. Finally, a self-management training program bringing together patients with a variety of chronic illnesses can improve the results and reduce costs. Self-management of chronic disease education may soon become an integral part of the high quality of primary care. (Bodenheimer, Lorig, & Holman, 2002)

The increasing number of people with chronic illnesses faces many obstacles to address their situation. The most important obstacles are that medical care often does not meet their needs and that the information they receive about their illness is incomplete. This survey describes the years of care in order to improve quality in healthcare. (Wagner, et al 2001)

A state-of-the-art primary care system must be created to fully meet the needs of the Greek citizen, providing high-quality health services that are accessible to all.

The state must offer health services to its citizens, which must be adequate and available at the moment. To do this, sanitary services must be unified, which presents problems of equivalence, efficiency and efficiency. The system of Greece to be effective should refer to the standard of US health care organizations. It should have some elements.

- Care should be taken in particular in terms of chronic health problems that should be monitored by the doctor or the health team itself during the course of the year.
- There should be comprehensive health care, ie frequent illnesses and health problems should be addressed on the basis of the patient's social, cultural and psychological background.
- It should be directed to the patient and his / her family through a system of controlled patient movement within the system. (Lyonis, 2002)

According to Lion, the health system should offer its citizens a total of services with almost zero cost. The doctor must offer a whole range of services to every citizen such as:

- Manage the most common health problems and problems that exist in primary health care.
- Manage major risk factors such as smoking, obesity and others.
- Take vaccines in children and adults.
- To make early diagnosis for various problems, such as carcinoma at different points.
- Assess the patient's health status taking into account his age and some disability or chronic illness he has.
- Monitor pregnant women as well as children and infants.
- Provide first aid, take care of minor injuries and perform surgery.
- Perform a minimal number of diagnostic and therapeutic treatments in the clinic.
- Perform a minimum number of diagnostic and therapies at home. (Lyonis, 2002)

In this health system described there must be the concept of a medical practitioner, who must be aware of his or her duties and duties towards the citizens who need care. Certainly the role of a personal physician varies according to the location and the structure of activity. In particular, it is proposed that rural areas provide an economic incentive for those physicians with a higher number of people than expected and will have to check the doctors who do not consider the projected number of people. In the case of urban property, it is proposed that there should be a commitment by the medical practitioner, who will manage the insurance funds either through contracts or by developing their own infrastructure.

The personal physician should also be responsible for the referral of the patient to other specialized doctors or other health services. The patient in this case is advised not to have an extra cost. (Souliotis & Lyonis, Operational reconstruction of primary health care: A proposal for deadlock, 2003) What is important is the physician's training and the change in his perceptions so that he does not serve the public sector but the social whole. For this reason, the physician should be checked to see if he can handle a package of services such as the patient's health assessment and the management of major risk factors. (Souliotis & Lyonis, 2003)

Finally, it is particularly important to have a system that supports existing knowledge and guides the practice of personal doctors. This system must contain information that will contribute to the efficient and efficient use of resources. In this context, e-prescription and guidance for diagnosis and treatment should also be developed. (Souliotis & Lyonis, 2003)

The online prescription in Greece, albeit being applied, has errors and omissions. Some solutions to make it more efficient are:

- First of all, systems must be re-designed and security-based and personal data protection policies for insured persons created. As is currently the case, prescription can easily be retrieved by data retrieval and prescribing drugs and examinations without knowing the person concerned.
- Electronic means provide the possibility of executing a prescription with an electronic signature for printing. Printing with pharmaceutical prescription paper creates confusion and is not a safe way for prescription drugs.
- It would be extremely useful if the system were able to maintain a patient envelope in accordance with international standards. This dossier, except for prescriptions, will contain expert reports with dates and others, results of non-clinical examinations and any patient hospitalizations. All above will only exist with the patient's AMKA.
- It must also redesign the list of non-clinical examinations so that it is not a tedious and time consuming process. In cases where it is necessary to repeat par clinical examinations at

regular times, the doctor should be able to write the examinations with a later date of execution so as to avoid the patient's suffering.

- The program should keep a history of each patient so that the doctor knows all the patient's health information.
- The list of prescription drugs and ordered non-prescriptive examinations should be restricted.
- Improvement of the dosing regimens for pharmaceutical formulations and the search for pharmaceutical formulations. Lastly, it is important that medical confidentiality applies. (New Doctor's Movement, 2013)

All the above proposals are expected to result in a rational use of resources and thus improve the efficiency of the system. It is also important to ensure that citizens are equal in their health care and healthcare infrastructure and conditions. The waiting time of the citizens can be reduced by organizing the doctors' specialties. Increasing the salaries of doctors depending on the amount of citizen service can be a powerful driver for increasing efficiency.

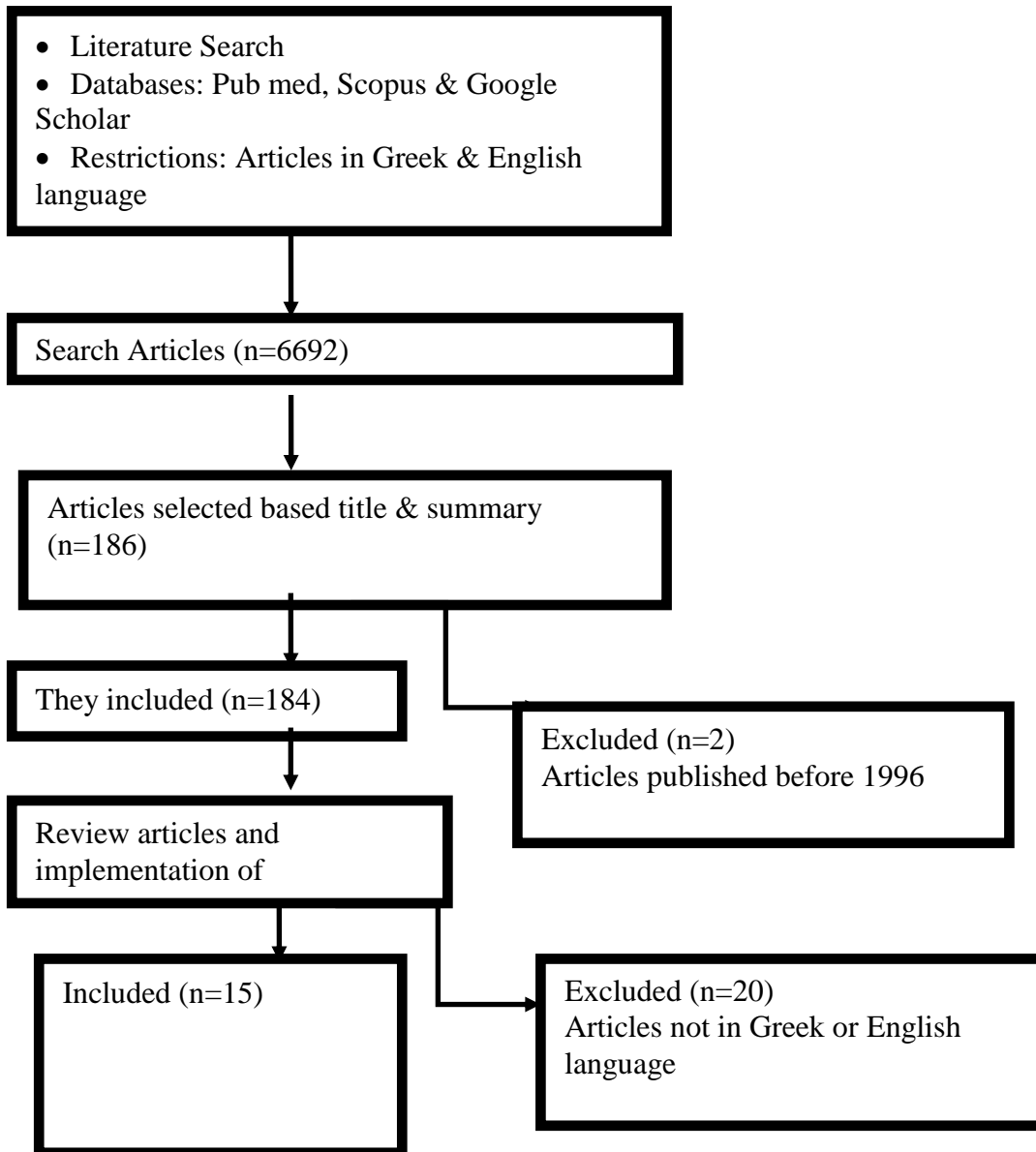
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**Flow chart 1:** Articles sample selection for the systematic reviews

## **Psychological Impacts of Unemployment in People with Visual Impairment: A Review of the Literature**

### **Abstract:**

This study investigates the psychological impacts of unemployment in people with visual impairment. During a financial crisis, the right to work is being affected, leading the workforce to unemployment. This situation has an impact on both the physical and emotional health of individuals. The occupational status of people with disabilities is related to psychological aspects, such as the level of life satisfaction and self-esteem. As for the visually impaired people, the unemployed compared to employees tend to exhibit a higher degree of anxiety and depression disorders, also displaying higher rates of alcohol consumption, lower self-esteem, and quality of life standards. Women had significantly higher levels of anxiety and depression. Finally, there was being noticed an increase in negative feelings and thoughts about suicide, decreased self-esteem, loss of independence, personality changes, and major changes in family dynamics. The research produced many articles from which the following were

finally chosen for this review due to their interest. Generally, people who focus on the negative aspects of their lives in the past and see their present fatally are likely to experience symptoms of depression, angst and physical manifestation of stress symptoms, which explains why the results of life satisfaction of people with visual disabilities who are unemployed tend to be lower.

**Key Words:** psychological effects, unemployment, economic crisis, disability, people with visual impairment

**Stafylidis Andreas<sup>1</sup> and Stafylidis Charalampos<sup>2</sup>**

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<sup>1</sup> Corresponding-Address: Stafylidis Andreas Faculty of Physical Education and Sports Science, Aristotle University of Thessaloniki, Thessaloniki, Greece, email: [andreas7stafy@gmail.com](mailto:andreas7stafy@gmail.com)

<sup>2</sup> Corresponding-Address: Stafylidis Charalampos Faculty of Physical Education and Sports Science, Democritus University of Thrace, Komotini, Greece, email: [xarisstaf@gmail.com](mailto:xarisstaf@gmail.com)

## 1. Introduction

Unemployment is defined as the condition of an individual who, although capable, willing and available to work that he or she is, cannot find work and appears when there is excess job offer or no-existence corresponding jobs (Katseli & Magoula, 2005). The quantification of unemployment is defined as the quotient of the unemployed of a region to the work force multiplied by one hundred (Galanis, 2011). According to Agapitos (2008), unpredictable unemployment is being distinguished, in which the unemployed individual has the skills, wants to find work and despite his efforts, does not manage to find a job, from the deliberate, where the unemployed have the skills and opportunity but does not want to work, as he is not accepting the terms or employment offered by the labor market. One of the main factors affected during a financial crisis, especially nowadays, as experienced at global and national level, is the right to work, thus leading the labor force to unemployment while experiencing feelings of insecurity (Ferrie, Shipley, Stansfeld & Marmot, 2002; Kentikelenis, Karanikolos, Papanicolas, Basu, McKee & Stuckler, 2011), even depression, as reported by researchers who studied the domestic crisis (Economou, Angelopoulos, Peppou, Souliotis & Stefanis, 2016). This situation in which the workforce is driven has an impact both on the physical and emotional health of individuals (Ferrie et al., 2002; Kentikelenis, et al., 2016). Unemployment is, therefore, one of the most important issues that governments have to manage both at global, European and national level, given the situation in our country (Galanis, 2011). In respect of the unemployment rate for people with disabilities increases year-on-year at a rapid pace (Ang, 2012). People with visual impairment, in particular, depressed mood, often appear to the unemployed. The combination of loss of work and the feeling of the already learned weakness - disability, due to the physical condition of the individual, disability, can lead to passivity and debilitation. This will make it very difficult for the unemployed to find a new job (Marian, 2013). Also, the occupational status of people with disabilities is related to psychological aspects, such as the level of life satisfaction, self-esteem, and generally self-efficacy (Racasan, 2016). Below, this work will report more on the consequences of unemployment and the psychological aspects directly affected by this situation in people with visual impairment.

## 2. Methodology

The bibliography was searched electronically on the Google Scholar databases and the Scopus database, with access to the Elsevier bibliographic database and search to articles and titles of scientific journals in the topic area that has been selected, in psychological impacts of unemployment in visual impairment. It has been investigated the relatively recent literature on the scientific field of the psychological effects of unemployment on the typical population, on people with disabilities in general, and especially on people with visual impairment. The keywords used were: psychological consequences, unemployment, financial crisis, disability, visually impaired people. The research produced many articles from which the following were finally chosen for this review due to their interest.

## 3. Results

In recent years, Greece has experienced the highest levels of unemployment and income loss between the European Union and the OECD countries during the current economic crisis, according to the OECD (OECD, 2014). Unemployment rates in our country amount to 20.8% as recently calculated for November 2017 (Greek Statistical Authority, 2018). In the category of moderately limiting / disability, the unemployed are 29.3%, while in the non-disabled population, unemployment is estimated at 24.6% (ELSTAT, 2016). The unemployment rate is the highest among young people with a severe disability of 25-29 years, estimated to be 58.2% according to the Income and Living Condition Household survey (ELSTAT, 2016). Many people with disabilities, despite they have the skills to work, are not able to

absorbed by the labor market and are driven to unemployment (Ang, 2014). People with disabilities are part of a productive human resource that can be successfully absorbed by the labor market with many benefits for both the disabled individual and society itself.

The limitations of the individual due to disability are not an obstacle to becoming a productive worker with exceptional levels of efficiency (Hindle, Noble & Phillips, 1999; Caldwell, Harris & Renko, 2012). Worldwide, it was estimated that there were 285 million who had a visual impairment, 39 of whom were totally blind and 246 million with low vision, according to a survey of global data on visually impaired people (World Health Organisation, 2010; Pascolini, & Mariotti, 2012). According to the latest studies, it is estimated that this number has decreased and that there are 253 million people with visual impairment, 36 million of whom are totally blind and 217 million vision impaired, with 81% of people with visual impairment to be over fifty (50) years of age (Bourne et al., 2017).

These groups of people are vulnerable and more likely to be confronted with unemployment (Lee & Park, 2008) and underemployment (Crudden & McBroom, 1999), because of the obstacles they encounter before or during work (Baldrige, Beatty, Böhm, Kulkarni, & Moore, 2015). In recent years, the rate of unemployment in Greece has soared at a rapid pace as a result of the global economic crisis. The consequences of unemployment are not only being presented in the economic field (Landais, Michailat, & Saez, 2018), but also on the social and psychological field (Gonza, & Burger, 2017). This review examines the effects of unemployment on the psychology of the unemployed, in people with visual impairment. Surveys show that the negative effects of unemployment are increasing the incidence of mental disorders, especially depression. Even the personality of the unemployed individual is directly affected by changes in personality details, self-esteem, and even the ability of the individual to gain satisfaction from life and relationships, his sense of satisfaction from life, that is, all of these aspects appear to be largely affected by unemployment (Marian, 2013; Racasan, 2016). Below, the areas that have summarized above are being analyzed in detail.

#### **4. Effects of unemployment in psychology**

Depressed mood often occurs in people without employment. In the case of a disability, when an individual loses a job maybe it could lead to passivity and debilitation, which will make it very difficult for the unemployed individual to find a new job (Marian, 2013). A solution to this issue may be using modern assistive technology and using ancillary solutions such as specially designed software for people with visual impairments so that these individuals are being conferred with the potential to be socially and professionally independent (Paisios, 2012). Unemployed people tend to exhibit a higher degree of concern, anxiety, and depression, compared to employees and also showing higher rates of alcohol consumption and lower self-esteem and levels of quality life (Dutta, Gervev, Chan, Chou, & Chan, Strauser, Gervev, & Lee, 2010).

Concerning people with visual impairment, there were significant differences between the two sexes about the feelings they felt. Even unemployed participants spend a lot less time with domestic activities, considering themselves as more dependent and less healthy individuals, while at the same time compared to active people (workers) they have limited capabilities computer use, and the tendency to use fewer forms of assistive technology (Racasan, 2016). In general, people who focus on the negative aspects of their lives in the past, who see their present fatally, are likely to experience symptoms of depression, anxiety and physical manifestation of stress symptoms, which explains why satisfaction with their lives also tends to be lower (Roseanu, Marian, Tomulescu and Pusta, 2008). On the other hand, active participants that were used as sample spend less time on leisure activities (mainly

individual), especially reading, and tend to have higher scores on participation in outdoor activities. In Mexico among people with visual impairment, studied several issues such as the psychological effect of vision loss and loss of jobs, as well as the effects of vision loss on family dynamics (Gonella, 2014). There was an increase in negative emotions and suicides, decreased self-esteem, loss of independence, personality changes, and a significant impact on the sense of masculinity. The data also revealed significant changes in family dynamics resulting from loss of vision, including the loss of traditional family roles (patriarchal hierarchy).

Participants also presented various changes in their social status and their relationships with the social environment (Gonella, 2014). Western societies, usually depicting male sexes with features that include the existence of physical strength, economic success, absence of emotions, dynamic and independent, with some variations from society to society (Shuttleworth, Wedgwood, & Wilson, 2012). People with total vision loss and the visually impaired continue to face a large percentage of negative stereotypes, and although there are differences depending on how they treat them from country-to-country, the general global perception is still negative (Dickerson, Smith, & Moore, 1997; Erin, 2001). Common stereotypes include the beliefs that blinds are helpless, useless, emotionally maladjusted, and sexually inactive, incompetent, sickeningly people in relation to interaction, introverted characters, different, people who cause you fear and desire to avoid them, perceptions that can be very detrimental to the self-esteem of the visually impaired individual (Dickerson et al., 1997; Southall, & Wittich, 2012).

The results presented by researchers show that it is more difficult for men to face the loss of jobs than women because male identity and manhood are linked to work in western societies (Paul & Moser, 2009). There is a correlation between unemployment, gender, and emotional health. It is the difference between the roles and positions between men and women in the labor market and the family. In a situation where gender relations are characterized by a relative similarity between the roles of men and women, there will be no gender difference in the relationship between unemployment and emotional health. In a situation where there are significant differences, however, a different relationship will be developed (Strandh, Hammarström, Nilsson, Nordenmark, & Russel, 2013). Men receive more negative stigmatization due to unemployment than women who undertake other activities, such as upbringing children and thus to face the unemployment they have experienced (Kulik, 2000). However, this survey generally refers to the unemployed population. However, in the case of researcher Gonella, (2004) the participants, composed of people with visual impairments, also presented various changes in their social status and their relations with the social environment (Gonella, 2014).

The relationship between work and health in people with hearing and vision impairment (deafblindness) show that the sample of workers had statistically significantly better health than those who did not work, in areas such as for overweight, handling problems, concentration, feeling of dissatisfaction, depressive symptoms, and feelings of self-worth. Thoughts and suicide attempts were significantly more common in the group that did not work and received the disability pension. Studies have shown a close correlation between unemployment and increased risk of morbidity and mortality (Bambra & Eikemo, 2009). Also, as mentioned above, unemployment is strongly correlated with poor psychological health (Paul & Moser, 2009). An indicator of this relationship is the fact that in countries where unemployment rises, there is a significant increase in suicidal tendencies (Stuckler, Basu, Suhrcke, Coutts & McKee, 2009). Also, significant differences are noticed in the results between the two groups in this study on depression, suicidal thoughts and suicide attempts are worrying as 20% of people in the retirement rights group say they have done at least one suicide attempt (Ehn, Möller, Danermark, & Möller, 2016). Several studies have shown a strong positive correlation between suicide attempts and mortality (Skogman, Alsen, &

Ojehagen, 2004). Concerning the physical health indicators, two variables showed a significant difference in the group of retired people with disabilities. These were the weight (overweight) and decreased the ability to run at a short distance (Ehn et al., 2016).

## 5. Discussion

It appears from the bibliography that new intertemporal estimates of the impact of unemployment from adulthood to middle age on the psychological state of people with visual impairment show increased levels of discomfort, including feelings of depression, concern, fear, nervousness, aggression, irritation and fatigue, as well as emotional behavioral problems until extreme manifestations of these emotions, such as trends and suicide attempts (Racasan, 2016). Regarding the long-term effects of unemployment, people who were unemployed for longer periods during adulthood had increasing levels of discomfort, including emotions as mentioned above of depression, anxiety, fear, nervousness, aggression, frustration and fatigue at the age of 50, proving that unemployment is likely to have long-term social impact (Daly, & Delaney, 2013). Even psychological factors of childhood may represent separate paths for later professional and emotional health (Goodman, Joyce, & Smith, 2011).

Factors related to education and rehabilitation seemed to affect the effects of employment where the higher educational level is associated with better employment outcomes (Bell, & Mino, 2015). Unemployment has a negative impact on the subjective feeling of life satisfaction, both by shrinking its financial resources and by its negative consequences on subjective factors such as happiness, life satisfaction, and self-efficacy. People with lower educational levels show lower self-esteem with high education being associated with high self-confidence indicators (Orth, Trzesniewski & Robins, 2010). Modern assistive technology and specially designed software for people with visual impairment could enable these individuals to be socially and professionally independent (Paisios, 2012). Individuals with visual impairment, who are unemployed, spend a lot less time on domestic activities, having formed the image of a dependent individual for themselves (Racasan, 2016). Unemployment is positively correlated with poor psychological health (Paul & Moser, 2009). An indicator of this relationship is the fact that in countries where unemployment rises, there is a significant increase in suicidal tendencies (Nordt et al., 2015, Ehn et al., 2016). In research findings also are being referred the significant psychological effects caused by job loss due to visual impairment and its impact on family dynamics and the loss of traditional family roles such as the patriarchal hierarchy (Gonella, 2014).

Concerning the physical health indicators, two variables showed a significant difference in the number of people who did not work in comparison with the group of employees. These were the weight (overweight) and reduced capability in running short-range distances (Ehn et al., 2016). In conclusion, the consequences of unemployment on the psychology of people with visual impairment were examined and analyzed. Together with financial resources, unemployment seems to have a significant impact on the psychological level. Loss of work raises feelings of frustration, exasperation, and sadness, greatly reducing the feeling of life satisfaction. The emotions mentioned are sadness, despair, anger, exasperation, and since it is a difficult situation to manage, in many researchers suicide tendencies of people with visual impairment are being related to unemployment, showing high correlation and high rates. Further investigation could be done on the possible differences that may be presented among the effects of unemployment in psychology between the two sexes and the impacts of unemployment on the psych-socialization of people with visual impairment.

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## Negotiation Methods in the School Environment

### **Abstract:**

Both parents and teachers have a common goal to share the enhancement of the child/student as a whole, not only educationally but also socially and emotionally. Communication between them is essential as a collaborative relation is critical to be established. Sometimes parents and teachers have different opinions on issues that concern the child's performance and behavior in school. They disagree on a child's assessment, behavior, diligence, participation and sociability in the school's environment. They use different ways and tactics to solve their disagreement and without knowing it, their manners tend to be close to either one of the main negotiation methods, the positional or the principled one. Considering the attitude of each part as well as the tactics that they use, a third party can identify whether the chosen negotiation type is positional or principled.

**Keywords:** parental involvement; school communication; positional negotiation; principled negotiation.

**Mylonas Fotis<sup>1</sup>**

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<sup>1</sup> Corresponding-Address: Mylonas Fotis., University of the Aegean, Greece, Email: [phomy1@gmail.com](mailto:phomy1@gmail.com)

## 1. Introduction – The value of Negotiation

In our life we negotiate more than we realise. Negotiation is a way to satisfy our needs and get what we want. We are all part of a web of relationships and we depend on other people for help. Similarly the other people want to satisfy their own needs and desires.

Negotiative behaviors and processes are intended to describe the constellation of acts and communications that extend beyond any particular negotiation and encompass every manner of expression or action, whether formal or informal, that serves to manage, minimize, or settle issues or differences that arise between people (Benjamin R.D. 2012).

Negotiation is a form of persuasive communication. It's a way to get the others do what we want them to do. An array of communication skills are involved: listening, asking questions, exchanging information, making arguments, reading body language.

Negotiation, as a tool in the contemporary Greek school setting, has an added value. While in Greek schools the evaluation of parental involvement is rapidly changing, we are facing issues of conflicting views between teachers and parents. Knowledge of negotiation technics by both sides will resolve the disputes, since both sides are interested in the students' welfare.

### 1.1 Overview of the negotiation field

In the field of negotiation, Howard Raiffa and Robert Axelrod examined game theory in accordance with the model of rational choice. (Raiffa H. 1982, Axelrod R. 1984). Axelrod (1984) some years later observed the limits of this model saying that people tend to be more adaptive than rational in their decision making.

Harvard University professors, Roger Fisher and William Ury introduced principled negotiation, a negotiation model based on people's interests, through their bestseller book entitled 'Getting to Yes' (Fisher R., Ury W. 1981). Fisher and Ury suggested a rational model of negotiation for every case of disagreement, from a geopolitical matter to a divorce or a business dispute. The emotion of the dispute, while acknowledged, is moderated and minimized as much as possible in favor of reasoned analysis and discussion to solve the problem.

In the USA and Great Britain the interest for negotiation skills has widely grown up with programs in Universities as Stanford's Influence and negotiation strategies program, Michigan's Negotiation and conflict resolution, Columbia's Negotiation and most notably the cooperation of Harvard, MIT and Tufts – Program on Negotiation (PON).

In Greece Athens University of Economics and Business runs a course and offers a program through e-learning 'Diploma in negotiations'; the National and Kapodistrian University of Athens runs an e-learning course 'International and business negotiations'; and the University of Macedonia– Department of Accounting and Finance runs a course 'Negotiations and crisis management in politics and finance'.

### 1.2 Negotiation stages

Every researcher or negotiation expert uses or distinguishes from 3 up to 8 stages, depending on how s/he approaches the whole process. The main 3 stages are:

- 1 Prenegotiation planning
- 2 Problem solving or agreement accomplishment
- 3 Ending or resolution stage

All researchers agree that the first negotiation stage is the stage of planning and preparation. Fisher and Ury at 'Getting to Yes' (2011 edition) report "Before you even begin to negotiate, it makes sense to envision what a successful agreement might look like. This will help you figure out what issues will need to be dealt with in the negotiation and what it might take to resolve them." (p. 175).

The middle stage entails the attempt of solving the problem and making the agreement. The two sides are taking their stand, first about their perspectives over the subject and their understanding of the current situation. By discussing, the two sides make explicit their points of view advancing their arguments and expressing their interests and perceptions.

The last negotiation stage is where we take the final decisions and we form the agreement. Every agreement needs to be clear to its terms, so every side can fully understand the commitment that has been taken.

### 1.3 Positional Negotiation and Principled Negotiation

Following Roger Fisher's and William Ury's Book 'Getting to Yes', the two main methods of negotiation are positional and principled.

Positional negotiation – referred to also as distributive negotiation – consists of focusing at disagreements. Every side takes an extreme position according to its goals, needs and limitations. These positions are almost always at the other end of the other side's positions. Two sides are using negotiation as a zero-sum game, where only one can win – as it is described in game theory. Positional negotiations are described with the model of prefixed pie. Every side is trying to win a big part of the pie.

Principled negotiation is a different method of negotiation where the two sides work together on an agreement based on principles that will get both at the end happy with the result and with the level of their relationship. Instead of thinking of positions, principled negotiation forces us to think in terms of interests and problems. Unlike the zero-sum games, principled negotiation leaves none in a worst position than the one before the negotiation started. The parts cooperate to create a bigger and mutual beneficial pie to share at the end (Long J. 2013).

There are four points that define principled negotiation. Each point deals with a basic element of negotiation and suggests what you should do about it (Fisher R., Ury W. 1981).

- People. Separate the people from the problem
- Interests. Focus on interests, not positions
- Options. Invent multiple options looking for mutual gains before deciding what to do.
- Criteria. Insist that the result be based on some objective standard.

### 1.4 Negotiation tactics

People who start to negotiate for an issue use tactics, most of the times without knowing which method they follow.

The most common tactics for positional negotiation are:

- The tactic of silence. We avoid to reveal information we don't want to.
- Deliberate exhibition of emotions and reactions. We want to influence the other side in thinking that they know our preferences.
- Deliberate release of information about our side.
- Maximizing the value of our offer and minimizing our benefits at the same time.
- Maximizing the other side's cost of agreement's failure.
- Threat, Set up. We try to frighten the others and make them retreat.
- Aggressive behavior. It is pressure for retreats on the other side and demands for better offers.
- Fake information, declarations and clues.
- Ultimatum (take it or leave it). The one side tries to convince the other using the lack of time as a threat.

The most common tactics for people who use the principled negotiation method are:

- Separating people from the problem. The parties may address the issues without

damaging their relationship.

- Talk about the perceptions of the other side. The parties should try to put themselves in the other's shoes.
- Ask for the participation of the other side. Ask for their advice, and give them praises whenever it is possible.
- Identify the feelings, yours and theirs. We must allow the other side to express their emotions.
- Seek for the interests. When a problem is defined in terms of the parties' underlying interests it is often possible to find a solution which satisfies both parties.
- Use active listening. Active listening will help you understand their perceptions, feel their feelings and hear what they have to say.
- Speak for your own interests. If you want the other side to take your interests into account, you must explain them clearly.
- Avoid threats. Each side should avoid blaming or attacking the other, and should speak about themselves.
- Use objective criteria. Decisions that are based on reasonable standards make it easier for the parties to agree.
- Built a working relationship. The quicker you can turn a stranger into someone you know, the easier a negotiation will become.
- Look for mutual gain. As a negotiator you will almost always look for solutions that will leave the other side satisfied as well.

## 2. Parental Involvement

Research has convincingly shown that parent involvement is important for children's learning, attitudes about school, and aspirations. Children are more successful students at all grade levels if their parents participate in school and encourage education and learning at home, whatever the educational back-ground or social class of their parents is (Dauber S., Epstein J., 1989).

In order to define parental involvement we use Epstein's framework (Espstein, 2001), which defines the six types of involvement and lists sample practices or activities to describe the involvement more fully.

1. Parenting: Help all families establish home environments to support children as students.
2. Communicating: Design effective forms of school-to-home and home- to-school communications about school programs and children's progress.
3. Volunteering: Recruit and organize parent help and support.
4. Learning at home: Provide information and ideas to families about how to help students at home with homework and other curriculum- related activities, decisions, and planning.
5. Decision making: Include parents in school decisions, developing parent leaders and representatives.
6. Collaborating with community: Identify and integrate resources and services from the community to strengthen school programs, family practices, and student learning and development.

This framework was developed from Joyce Epstein of Johns Hopkins University to assist educators in developing school and family partnership programs. In modern Greek reality the most usual type of parent involvement is communicating. Parents communicate with school and teachers in a typical or non-typical form, to be informed about issues relevant to their children, or to express their concerns and complaints about school matters. Parenting, as Epstein defines, and decision making have yet to become a big part of the greek educational legal system. Volunteering does not have a typical form in greek schools and it refers only to individual parents who are willing to volunteer. Collaboration with community usually concerns school administration and not parents. Finally, some parents help their

children in learning at home, in a way rarely formed by school and commonly consulted by the class teacher, a practice which is connected straight with communicating.

### 2.1 Negotiating between parents and teachers

Both parents and teachers very often disagree about the academic potential of the children. They see things from different points of view and when they meet, everyone tries to persuade the other for its right. Although they both have the same Goal, the enhancement of the child – student, they experience different periods of child's everyday life, have different relation with the child, sometimes concentrate on different aspects of a child's personality, and may differ on educational level and socioeconomic characteristics of areas of residence.

Arguments between teachers and parents refer to five features of child's academic wellness – assessment, behavior, participation, diligence, and sociability. Sometimes parents believe that a child's grades should be better, sometimes teachers believe that the student is too hyper in the classroom and should be more calm. The problem is when the other part has a different opinion, sometimes at the opposite end. Then, the two sides meet, usually in school, and the relevant questions become:

1. How they act at this meeting?
2. How should they act?
3. Are their actions part of the tactics that fit to a position negotiator, or part of the tactics that fit to a principled negotiator?

All the body of research about parental involvement indicate the importance of this involvement for their children, but also indicate the importance of a good communication level between them and the school (Countryman & Elish-Piper, 1998, Chrispeels 1996, Greene & Tichenor, 2003, Epstein, 2001, Poulou & Matsagouras, 2007). Reading the basic points of every negotiation method we can easily figure out that the method which fits better the school environment is principled negotiation. Parents and teachers must cooperate for childrens' shake and this means that it is very important to maintain a good relationship level. Only principled negotiation can guarantee this level of relationship. To negotiate over positions may lead to conflict, if no one retreats and both sides use the tricky and aggressive tactics of positional negotiation.

Several studies have shown the importance of parents' educational level and socioeconomic characteristics. More – educated parents may believe they are already helping enough, while less-educated parents say they could help more if the teachers told them how to help (Dauber S.L, Epstein J.L., 1989). The level and the kind of panental involvement is affected by the parents' socioeconomic and educational level (Albert & Luzzo, 1989, Lareau, 1996, 2003). There are no similar studies examining the importance of teachers' educational level or their school areas' socioeconomic characteristics.

Our assumptions for this study are:

- Parents and teachers with high educational level tend to solve their disputes using tactics of principled negotiation, while the ones with low educational level using tactics of positional negotiation.
- Schools in regions with high socioeconomic characteristics have parents and teachers negotiating with principled negotiation tactics, while those in regions with low socioeconomic characteristics have parents and teachers negotiating with positional negotiation tactics.
- Parents and teachers use different negotiation tactics depending on the personality type of the other side.
- Men and women have no difference according to the use of negotiation tactics.

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