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Η Συντακτική Επιτροπή δεν φέρει ευθύνη για το περιεχόμενο και τη γλωσσική μορφή των άρθρων που δημοσιεύονται. Η ευθύνη αυτή ανήκει αποκλειστικά στους συγγραφείς των άρθρων.

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Petridis Ioannis

Grigoriou Markella

**The Mind:
Its philosophical dimension in Aristotle
and its biological dimension in Neurosciences**

Abstract

As human beings evolve, too many mysteries about human nature emerge in the scientific literature, along with more questions about the world, the body and the mind. In this essay I will try to report and explain the dimension of the mind both on a philosophical and neurological level. The main aim of this paper is to argue for the necessity to understand the term “mind” more likely as a philosophical concept. Due to the rapidly scientific progress, people try to understand every mental activity and function only in terms of science. This paper argues for rethinking about what science means by referring to the term ‘mind’ and clarifying the differences between the terms “mind” and “brain”.

1. Introduction

If we had the ability to think about things in a simple way and humans were able to understand the absolute simplicity, we would conclude that if there is something that has protected our species from the dawn of our existence until now, if there

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is something that, directly, impacted in the development and evolution of all information which rapidly circulated in schools, universities and societies; that something would, definitely, be the miracle that defines humans as humans. That something would, definitely, be the human mind. For man is characterized by an immense curiosity from his first until his last breath, he struggles to analyze everything that results in the total synthesis of existence. This analytic process, although challenging, is also crucial as synthesis is the cause of division and through the division of the synthesized whole, the man is enabled to reach what he is searching for. Moreover, the complexity of existence acts as a boosting agent, forcing man to move forward. That is why man captures the simplicity (to the extent of each person's abilities) during his last breaths, when his strengths and will to continue living have abandoned him.

Nonetheless, when we are referring to the term "mind" we observe that many questions arise. For example, what is, though, responsible for man's ability to analyze, generalize and act? What part of us, respects the caprice for every piece of information, knowledge, dream and desire? The answer to these stated questions need to be one of great substance, great as our own existence, hence many have attempted to provide humanity with great and worthy answers. Many of the ancient philosophers spoke about the mind in different ways than we talk today. The main point of differentiation regards the way the ancients defined the "mind". In this paper I will analyze the Aristotelian account about the mind and contrast it with the scientific account neurosciences has developed. The reason why I chose to present the Aristotelian perspective about the mind instead of any other of the Greek philosophers is because of two reasons. Firstly, the commentary of Aristotle's philosophy of mind remains, still, unchallenged. Secondly, Aristotle's doctrine about the mind has huge influence in several scientific and philosophical studies.

Aristotle wrote that the mind which lies within the psyche, the soul, and through which the psyche thinks and develops judgements.¹ In contrast, today we arrive to the contemporary neurosciences which regard the mind as an immense factory that never ceases to produce and in which everyone is working around the clock. From the times that the mind was regarded as something explicitly spiritual we arrive at our era in which the mind is equated and determined by brain's functionality. In the next section, I will indicate the distinction between the two definitions.

2. Clarification of terms

Although, clarification of the terms is significant, I will address a brief explanation of the different definitions of 'mind', philosophy and neurosciences provide.

¹ It would be useful to clarify that Aristotle believes that the soul is united with the body and that the soul is not the intellect but something that includes it. Later on we will see how this relations between the mind and the soul explained.

2.1. The mind

In this section I will show what Plato's and Aristotle's traditions provide as the definition of the "mind". Firstly, we should make it clear that in Ancient Greek philosophical literature, it is almost obvious, that the mind is a kind of immaterial entity. According to Socrates, the mind is not determined by psychical laws and physical substance. Socrates developed a distinction between the mind and the body. He was a dualist about the mind-body issue because he distinguished the mind from the physical function of the brain.² Socrates, claimed that the mind is the only way for people to identify the truth about the world, the nature and the God. The mind is to understand the nature of ourselves, to knowledge and to think rationally in order to define the truth. This view of mind became strongly accepted by other philosophers in those years. For example, Plato in his Republic stated that the world is really composed of what he calls 'Ideas' (forms).³ The forms are eternal and perfect concepts and thus are never established on Earth. These Forms not only make the world possible, they also make it intelligible, since, they perform the role of the nature and the universe.⁴ Forms are the element of explaining how the mind interprets the continuous stream of sensory data it is exposed to by recognizing certain eternal concepts.⁵

The main objection to this account of mind generated by Aristotle. According to Aristotle, the mind is a part of our body. Aristotle rejected any possibility of mind-body dualism. His main argument was that the mind does not have innate forms. Aristotle's forms are regarded as natures and properties of things which are embodied in those things. This premise enabled him to support the claim that the mind is a part of the body.⁶ He did, however, argued that mind was different from any other part of the body as our conscious range is not restricted and determined in the way that our physical senses are. Keeping in mind the Aristotle's account of the mind will help us to understand the contrast between his philosophy and neuroscience, which I will discuss later.

2.2. The brain

According to neurosciences, the brain is the most complex body organ which its functions and mechanisms are impaired in neurochemical terms. The

2 *Dualism*, Stanford Encyclopedia of Philosophy, no pages – online, At: <http://plato.stanford.edu/entries/dualism/>, (Date of access 19/8/2003)

3 For that reason we talk about Plato's Theory of Ideas.

4 *Dualism*, Stanford Encyclopedia of Philosophy, no pages – online, At: <http://plato.stanford.edu/entries/dualism/>, (Date of access 19/8/2003)

5 Σκουτερόπουλος, Ν.Μ. (2002), *Πλάτων. Πολιτεία.*, At: http://www.greek-language.gr/greekLang/ancient_greek/tools/corpora/anthology/content.html?t=530&m=2 (Date of access 2006)

6 *Dualism*, Stanford Encyclopedia of Philosophy, no pages – online, At: <http://plato.stanford.edu/entries/dualism/>, (Date of access 19/8/2003)

complexity of the brain is because it comprises of large number of neurons. More than 100 billion of neurons are located in our brain and each neuron is able to maintain more than 1000 connections (synapses).⁷ Brain's activity is, strongly, related to the neurological process which is about to provide the information from the external world and to modify this information. In this perspective, brain's functions like sensory perception, thought, cognition, development of emotions, memory, imaginary and consciousness are described under the light of biochemical, molecular, genetic mechanism and only.⁸ The mapping of the brain describes the anatomical structure, the way that neuronal population acts and the networks of cells.

In contrast to philosophical explanations about the mind, neuroscientific explanations do not accept any metaphysical element in the brain's activity. At this level, brain determines mental activity and what philosophers address as the 'mind'. Even for the problem of the consciousness, scientists try to introduce an account which is based on the neurochemical level ignoring the mind-body problem. The mind-body problem is the philosophical problem of clarifying and understanding how the mind is related to the bodily nature. Basically, it introduces the inability scientists face for explaining the relation between the function of consciousness and the biological process at the time we are conscious.⁹ We could say that this is one of the main objections of the merely physical explanation of the "mind". Later on I will analyze more the neuroscientific view and the contrast between the philosophical and the neuroscientific concept of the "mind".

3. The Aristotelian perspective of the mind

In order to have a real understanding about the philosophical dimension of the mind, I should explain a bit the role of the soul and the relation which has with the mind. It is well known that Aristotle gave great emphasis to man's sensory capabilities, and his philosophical school of thought is far away from having a purely transcendental view of the mind. The reason is that everything happens in the one and only circular world. Even the psyche (soul) that is seen by many as a divine part in men, for Aristotle it cannot exist independent of the physical body. The psyche is an ensemble that contains man's abilities (nutrition, sensation, thought, movement, reproduction), it is a substance in the form of a physical body that has the capacity to live. The substance has three meanings: of matter, of form and of the synthesis of matter and form. The psyche when meant as a substance is

7 Consider that any moment we just think something the brain's neural signals are transmitted to approximately 100 trillion connections. These neuroscientific measures indicate the higher complexity of brain's structure and activity.

8 Pecura, C. M, Martin, J. B, (1991), *Mapping the Brain and Its Functions: Integrating Enabling Technologies into Neuroscience*, National Academic Press, Washington, p.25

9 Jaegwon, K, (2011), *Philosophy of Mind*, Westview Press, Colorado, p. 301

meant as a form, hence it is entelechy. For, entelechy or entelechia is the form of the being, that exists in a state of potentiality. In other words, the psyche has the potentiality of life, because as we translate Aristotle “it is what a specific body was to be”¹⁰. It is the beginning and the cause of the body that lives.

All of man’s capabilities and strengths are being contained within the psyche due to the Aristotelian claim that all beings either physically (in a sensory way) or mentally exist within the soul and it is characterized by the local motion on the one hand and by thought, sensation and judgement on the other. Though, thought, according to Aristotle is distinct from sensation because:

- Thought, unlike sensation, is not something physical
- Sensation is common amongst all animals, unlike thought that exists only in a few
- Sensation is always true whilst thought can function faultily¹¹

Aristotle theorized we can reach the truth through sensation, sensory perception, or through our mind. Sensation is always linked to the body whilst the part of the psyche that ‘thinks’ is unaffected and has nothing to do with the body because if it did, it would be dependent on the functions and the states of sensation and it would be reliant on the passions (“pathi” in Greek) of the sensory functions. Under these terms, there is a correlation between the soul and the mind. It is like the midness relates to the part of the soul which is unaffected from any kind of diseases and changes. This conceptual theory, we could say that indicates the Aristotelian theory of learning which is based on the functions of sensation and perception¹².

Regarding the nature of mind, Aristotle believed that two types of mind exist. On one hand, we have the passive mind which is involved with the material world and relates to all kind of changes. The passive mind is influenced by the course of the body and dies along with it.¹³ On the other hand, Aristotle speaks of the active mind or the active intellect that remains, and exists out of the area of the senses. The active mind is the essence of the energy. It is the energy itself that remains clear even when the body is gone.¹⁴ Amongst the two types of the mind (intellect) exists a time priority of the active mind to the passive mind. The active mind precedes and it is sufficient for thinking in contrast with the passive mind (intellect), whose functioning independent of the active mind and thought

10 Γρατσιάτου, Π, *Αριστοτέλους Περί ψυχής*, Βιβλίο 2, κεφ. Β, Ατ: http://www.mikrosapoplous.gr/aristotle/psychs/2_02.html (Date of access 11/2002)

11 Ross, W.D, (2005), *Αριστοτέλης*, μτφρ Μήτσου Μαριλίζα, Μ. Ι.Ε.Τ, Αθήνα, σ. 202-204

12 Grind, K, (2007), Learning to Lead: Can Aristotle Help Us Find the Road to Wisdom?, *Leadership*, Vol 3(2), p. 240

13 Γρατσιάτου, Π, *Αριστοτέλους Περί ψυχής*, Βιβλίο 3 κεφ. Δ, Ατ: http://www.mikrosapoplous.gr/aristotle/psychs/3_04.html , (Date of access 11/2002)

14 Γρατσιάτου, Π, *Αριστοτέλους Περί ψυχής*, Βιβλίο 3, κεφ. Δ, Ατ: http://www.mikrosapoplous.gr/aristotle/psychs/3_04.html , (Date of access 11/2002)

(thinking) is not something that necessarily is linked to the passive mind.¹⁵

Aristotle also explains why when a man passes, he has nothing to remember from his life. The type of mind directly linked to the sensory reality is the passive one which, as previously mentioned, dies along with the physical body. Hence, with death, we lose our only source that could provide us with the memories of the life we leave behind due to dying. The reason that only our passive mind can allow us to remember our life on earth, is because it is the only type of intellect that can become incorporated in our material reality. The active mind is completely independent and unaffected from what we experience in this life, hence; it cannot provide us with any life memories after death, because that is not its purpose. The active mind in the one that creates everything, it is the one that does, is the active state in its essence, it is something the Aristotle says that likens light. It is what remains to remind us what is eternal and immortal.

When the mind thinks, understands, something thinkable, something that is not involved with the matter, then the knowledge that occurs from this cognition is theoretical, as knowledge is being identified with what constitutes it as knowledge. In other words, active knowledge identifies itself with the object of knowledge (or cognitive object). On the contrary, when the mind understands, thinks, something that is involved with matter (the material world) it is considered to be the passive type of mind – intellect, it becomes in its own way everything that is thinkable, or cognitive, but does not produce anything. Conclusively, the passive mind is in a way, interwoven with process of sensory perception, regardless of its rationality, whilst the active mind abstains completely from man's sensory perception. Aristotle arrives to the conclusion that the active mind predates the passive mind since, as previously mentioned, it is eternal and immortal. In contrast, the passive mind is finite in time, which suggests that all its capabilities and skills, as eternal as they may seem, are lost with man's last breath.

The matter (issue) of the mind in Aristotle seems to combine a material or pragmatic view along with a metaphysical view (if we could ever use the specific term when referring to Aristotle). On the one hand it is evident in this theory that the mind's functionality and activity are dependent on the physical body's decay, since when a part of the body suffers, the ability of the mind to think and to function appropriate is decreased; however, the mind under no circumstances decays, the mind as a substance, is unfading. On the other hand, it is also evident that the mind is conceived in the theory as an active force, as a driving force that belongs to the sphere of the eternal. We can acknowledge a different dimension of the mind in which this energy that is contained within the mind, this overflowing production offers, the mind, part of the immortal, in which Aristotle's notorious sensations do not belong.

15 Γρατσιάτου, Π, *Αριστοτέλους Περί ψυχής*, Βιβλίο 3, κεφ. Ε, Ατ: http://www.mikrosapoplous.gr/aristotle/psychs/3_05.html, (Date of access 11/2002)

Aristotle's entire theory of the mind – the intellect – remains on a philosophical level. Aristotle does not refer to the matter of the brain, but instead he analyses the exceptional abilities of cognition. The mind in Aristotle's theory takes on a philosophical dimension since it is distinct from the material issues. The question that arises at this point is whether what we today refer to as the "brain" is the same with the one defined by Aristotle as the "mind"; in other words, if a connection and interaction exists between the organ of the brain as a whole (neurons, cells, membranes) and the brain's capacity for consciousness, perception and psycho-mental expansion. Is it possible for the brain, which composed of matter and which is physical, to produce our whole mental and imaginary world that we create?

As previously mentioned the matter of the mind is one of a vast scope and even if all scientific fields collaborated in attempting to decode its mysteries it would still be impossible for us to fully grasp and analyze it. We know enough about the functions and processes of the brain, of its anatomy and topography, but still the curiosity of all philosophers, scientists and experts are never satisfied. Even in modern times the views and theories on the full capabilities of the brain vary and in many occasions contradict one another. Science takes on the risk to penetrate to the sanctuaries of cognition; scientists leave aside laws and axioms and prepare to face anything novel and unknown that can, at any minute, appear.

4. Neurosciences and the brain

We still have many questions, not only regarding the functions of the "mind", but questions that regard to practical issues. Where the brain or the mind garner the information/knowledge they receive? How the mind memories, remembers and learns? Why does it forget? And lastly, how does it become insane? These questions are partly answered by the neurosciences. And I say partly, because every science that studies the mind and the brain needs to be prepared for a reversal and keep in mind that there is always a more satisfying answer.

Firstly, let us approach the anatomy of the brain in neurosciences and how "it" exists in our heads. The brain, as I referred, is the most complex and peculiar organ in the human body and, metaphysically speaking, it is the evidence that human beings are separated from animals. It controls all the physical and mental functions. We need to note at this point that based on neurosciences the mind is the activity of the brain. Cognition is the result of the brain's biological function and it is not equated to the brain. All our abilities like learning skills, memory and imagination are set under the brain's physical substance as a physical organ.¹⁶

16 Κωστοπούλος, Γ. (2008), *Εγκέφαλος: Ο πιο δικός μας άγνωστος*, Εθνικό Ίδρυμα Ερευνών - Αποθετήριο Ήλιος, Αθήνα, σ. 74

Hence, we need to clarify that both Aristotle and the neurosciences define differently the word “mind” and “cognition”.

The brain is the cornerstone of our nervous system. It consists of two hemispheres and billions of neurons that communicate with each other, creating webs through which the information is transferred. The neurons receive the sensory stimuli which are transformed to electrical and chemical signals, through which the neurons communicate. The combinations of electrical and chemical signals in the neurons enable us to do everything we do. Movement, muscle contraction, perception, thought, memory and behavior are the results of this combination of signals that are communicated between the neurons. In other words, the fact that we act in any certain way is dependent on the electrons' movements in our neuron webs. It might seem impossible, but if we consider the fact that the source of energy, in the sense of action, is the electrons, then we could more easily accept this theory.¹⁷

The structure and the functioning of these webs are both dependent on our genes and the stimuli received from the environment, for as long as we are alive. Consequently, the brain's neuron webs do not function in the way that they do randomly, but have a rather predetermined genetic structure that forms during the embryonic development. In other words, all the structures of the processes (thought, imagination, perception, etc.) of our brain are designed even before we are born. On the other hand, the functioning of the processes is not predetermined. Our DNA code controls the development of the structures and then we develop the processes based on the stimuli we receive from the internal and external environment.¹⁸

We have attempted to present a sketch of the brain in a very general way in order to be able to understand the cognitive process that follows. No clear answer exists, yet, to whether cognition as a process-function exists independent from any experience nor if is mobilized by the stimuli it receives. Neuroscientists are not able to know with certainty if cognition and consciousness are functions of the brain or mental abilities that exist outside the brain. Although neuroscience assumes that cognition and consciousness should be defined as biochemical functions, there are no sufficient evidences to support this movement. Indeed, we know that mental activities are strongly related to brain's activity, but this is very different from saying that cognition or consciousness is natural kinds and they physically exist in the brain.

Aristotle, via his philosophical theory of the mind or the intellect, provided answers to this problem centuries before neurosciences even existed. As I mentioned earlier, he cleverly states that there are two types of mind. In that

17 Κωστοπουλος, Γ, (2008), *Εγκέφαλος: Ο πιο δικός μας άγνωστος*, Εθνικό Ίδρυμα Ερευνών - Αποθετήριο Ηλίου, Αθήνα, σ. 75

18 Μτφρ – Επ. Δάλλα Χ, (2008), *Θεμελιώδεις έννοιες νευροεπιστημών*, Ελληνική Εταιρία Νευροεπιστημών, Αθήνα, σ. 5-6

way, Aristotle, accepts on the one hand that cognition is a mental entity beyond matter/physiology, and this type of cognition regards the active mind and at the same time he accepts that the mind is related to matter and sensation since it is dependent on the existence of the body; this second type of cognition is related to the passive mind which is born and dies along with the body.

But let us return to our first question: how do we think? How do we conceive everything new that we define as knowledge?¹⁹ Neuroscientific results showed that the answers lay in the “plasticity” of the brain. The plasticity of the synapses neurons create is the reason that man has the ability to learn and then to “think/understand” (the words “think” and “understand” are again used to represent the mind’s functions). The brain has the ability to self-organize and remodel according to the stimuli that it receives, and we follow the course chosen for us by the brain. In other words, the neurons have the ability to form webs and create different structures of what they receive from the external worlds. This is called plasticity. This ability of neuronal plasticity exists throughout our lives and that is the reason we have the ability to learn, regardless of our age, even though it gradually decays.²⁰

All the above mentioned conclusions can easily change as new researches provide us with newer and newer data in regard to what cognition is. Hence, we need to remain alert to all new scientific developments and not to accept the previously mentioned data as absolutes. In summary, what we learn from the modern developments in the field of neurosciences is that all the potentials and possibilities of the human brain owe their existence and activity for the perfect auto-organization of the nervous system. The whole structural order and precision of the brain and the nervous system enable us to have mental processed such as thought, memory, imagination, speech and logic. Certainly different parts of the brain in collaboration with each other are responsible for each process or ability; hence, we speak of the complexity of the brain. The structural order depends on both our genetic heredity and the stimuli received from the environment. This fact changes what was presented so far, as cognition is not a purely mental function, but is rather linked to what we receive from the environment.²¹

Moreover, if cognition was not interrelated to the external reality it could not be confirmed. Due to this interrelation of cognition to the external reality we can achieve absolute knowledge of matters that are not confirmed

19 Lets clarify that the Greek word “νοώ” (think) that Aristotle used for explaining the process of thinking, has the meaning of all the processes of the mind combined, all that the mind can do.

20 International Brain Research Organization, *Νευροεπιστήμες –Πλαστικότητα*, (μτφρ) Παπαδοπούλου-Νταϊφιώτη, Ζ, Γιακουμάκη, Γ.Σ, Κωστόπουλος, Γ, At: <http://panacea.med.uoa.gr/topic.aspx?id=892>, (Date of access 19/12/2007)

21 International Brain Research Organization, *Νευροεπιστήμες –Μάθηση και μνήμη*, (μτφρ) Παπαδοπούλου-Νταϊφιώτη, Ζ, Γιακουμάκη, Γ.Σ, Κωστόπουλος, Γ, At: <http://panacea.med.uoa.gr/topic.aspx?id=893>, (Date of access 19/12/2007)

by the external world. Even in regard to mathematics, that are considered to be mental objects, we are able to experience their application in our daily lives, hence, the external reality provides us with proof that our assumptions, calculations and mathematical laws are correct.

5. What Aristotle and Neuroscience tell us about the learning process

According to what is explained above, the philosophical dimension of the mind provides a chance for people to think further and at a phenomenological level instead of a biological one. This is significant because knowledge must be based on a higher level. It is totally approved that always there is something more to learn. Furthermore, a philosophical point of view explains the weakness of neuroscience to formulate a complete account of the nature of the mindness and knowledge.

In contrast, neuroscience via neuroimaging processes (fMRI, PET, CT, BOLD) is able to show us the structure of the brain and the neurochemicals functions of the brain. The explanation that neuroscience gives for mindness and knowledge have a specific and short limit due to the reject of any metaphysical element. These explanations do develop in an organic and physical level. And this may be the main reason why neuroscience cannot develop a sufficient definition about the mind.

The crucial issue in this part, is to indicate the two totally different learning processes Aristotle and Neuroscience provide. Due to the different explanations, both of them, provide, we have different explanations to the learning process as well. As we have refereed, Aristotle introduces a more conceptual way of learning. The process of learning is, mainly, a process, a movement of the mind. According to Aristotle, to learn is being able to understand and to “know why”²². The term ‘know why’, the epistemic “know why”, interprets the possibility of the subject to learn and enlarge their intellectual capacities. The dimension of understanding the reasons and the causes of what the subject wants to learn, is the main way of knowledge and learning. For Aristotle, learning is a biological process. Although, his philosophy includes physical explanations, the learning process, he proposes, includes a more intellectual character. We could say learning is the movement the intellectual does for exploring the reasons.

On the other hand, neuroscience, report a totally, biological process of learning. The learning process is a process of modification of the information we receive via our senses. Neurobiological studies mention a complete model about the learning process, without having to explain any metaphysical element

22 Grind, K. (2007), Learning to Lead: Can Aristotle Help Us Find the Road to Wisdom?, *Leadership*, Vol 3(2), p. 234

as philosophy has to. Furthermore, the learning process is not an autonomous process. It relates to the memory, cognition and perception. It may be related to other mental functions we haven't investigated yet. Although, this is a fact, indeed, in philosophy, we do not have a clear identification of this multiple relationship of the mental processes.

6. Conclusions and recommendations

In this paper, I have tried to show the different perspective between philosophical literature and scientific findings. It seems to be a paper which develops our consideration and curiosity about the nature of the mind, instead of a strict, scientific paper. However, I have explained the difference between the "biological brain" and the "philosophical mind" and my main argument is based on the fact that since science cannot provide a complete explanation of the nature of our mental activities, Aristotelian perspective does not seem so wrong. Although, his perspective about the 'mind' seems to be a more metaphysical concept instead of a scientific one, since the mind relates to the soul, justifies the difficulty science faces to deal with the problem of the definition of what the 'mind' is.

The second, significant conclusion is the difference between the process of learning Aristotle and neurosciences provide. As I have reported, the Aristotelian perspective about learning process is constructed on the concept of sensation and perception. The subject via sensation and perception is able to perceive the external information and understands what the world has to tell him. On the other hand, neurosciences claim that the learning process is due to the plasticity of the brain. The brain has the ability to comfort, to any new information from the external world and modify what perceives through the world. Although, one could say that, that there are similarities between the two learning processes, we have to clarify that Aristotle based his argument not in the neurological process and abilities of the brain, but rather on the abilities of the intellect and the mind. Instead, in neuroscientific literature, every process, is bounded in the biological perspective.

Nonetheless, all the analysis above drives us to ask one more thing. For what reason we are unable to gain absolute knowledge for something transcendental or metaphysical. Why there is no proof, but only beliefs? The answer is simple; we might have the internal structures to accept the existence of such entities, but no external data exist or if does exist it is not adequate. Hence, the ability to know about these matters is at a very primary stage. If we would attempt to formulate the previously mentioned conclusion in Aristotelian terms, we would say that we have the potential to gain knowledge of the existence of such entities. We have the possibility of knowing if these entities exist, but we lack evidences that would widow the possibility of such knowledge an accomplished action.

Aristotle's view differs a lot from the view of the neurosciences, but every

theory provides us, in different ways, with the elements which are unknown to us. My aim is not to choose the best theory on the subject as long as this attempt would be extremely difficult and demand for strong arguments and glaring evidence. My aim is to understand, at least to some extent, what leads to the polymorphic activity of the mind. Every person's mind is something unique and determinable for him. It is obvious, thus, that our uniqueness depends on the fact that each one of us can function in a distinct way, in a way that ensures the person's uniqueness

In conclusion, it's worth mentioning that within philosophical terms, persons with mental disabilities or insanity, aren't lacking mental capacities but rather their mental abilities function in an extreme way.²³ In other words, these people's uniqueness is greater and more intense than the general population, hence their mental functioning and processes differ in a great extent from the rest. The mind, for Aristotle, or the brain for neurosciences is what allows us to move within the space-time of reality in both a mental and a biological level. The mind is "the most familiar stranger"²⁴, and we owe to the mind our existence as mental, intellectual and not just biochemical beings. We might never achieve specific and precise answers in regard to the mind and the brain, but through scientific research, we can always get one step closer to the truth. I do not claim that science is not important. I believe that science is important because tries to explain in an understandable level nature's mysteries.

Besides, it is one of life's mysteries that worth remaining a mystery. Not because we have no need for certain answers regarding the mind, but because extended research on the mind often leads to paradoxes and "absurdity" due to the correlation between the biological and eternal character of the mind. Moreover, at a philosophical and educational point of view, the mind is miraculous and "miracles" cannot be fully explained with human logic.

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23 Bentall, R.P, (2004), *Madness Explained: Psychosis and Human Nature*, Penguin Books, London, p. 96

24 Κωστοπουλος, Γ, (2008), *Εγκέφαλος: Ο πιο δικός μας άγνωστος*, Εθνικό Ίδρυμα Ερευνών - Αποθετήριο Ήλιος, Αθήνα, σ.73

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**The role of the school and of the teachers
in promoting gender equality:
beliefs expressed by Greek teachers**

Abstract

This article is trying to present findings regarding the beliefs and the values of Greek teachers regarding gender, by emphasizing their views on the role of the Greek school and themselves in what concerns promotion of equality, an issue with no available prior research data. Elementary and secondary education teachers have taken part in focus groups. The present study is attempting to explore teachers' beliefs about the school's role as an institution and its ability to reproduce or mitigate any gender discrimination, the way teachers formulate their professional identity as they discuss their own role in promoting gender equality.

Ο ρόλος του σχολείου και των εκπαιδευτικών στην προώθηση της ισότητας των φύλων: πεποιθήσεις ελλήνων εκπαιδευτικών

Περίληψη

Το άρθρο επιχειρεί να παρουσιάσει ευρήματα σχετικά με τις πεποιθήσεις και τις αξίες ελλήνων εκπαιδευτικών ως προς τα φύλα δίνοντας έμφαση στις απόψεις

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τους για τον ρόλο του ελληνικού σχολείου και των ίδιων στην προώθηση της ισότητας, ένα θέμα για το οποίο δεν υπάρχουν προηγούμενα ερευνητικά δεδομένα. Εκπαιδευτικοί πρωτοβάθμιας και δευτεροβάθμιας εκπαίδευσης συμμετείχαν σε ομάδες εστίασης. Η παρούσα μελέτη επιχειρεί να διερευνήσει τις πεποιθήσεις των εκπαιδευτικών για τον ρόλο του σχολείου ως θεσμού και τη δυνατότητά του να αναπαράγει ή να αμβλύνει τις διακρίσεις λόγω φύλου, τον τρόπο με τον οποίο οι εκπαιδευτικοί δομούν την επαγγελματική τους ταυτότητα καθώς συζητούν για τον ρόλο τους στην προώθηση της ισότητας των φύλων.

1. Introduction

The focus of feminist research and intervention in school is associated with the position that school is a mechanism that reproduces and maintains stereotypes and gender inequity in the social, political and economic affairs. The official as well as the hidden school curriculum has been implicated in the reproduction of stereotypes and gender discrimination, which led to improvement interventions in curricula and textbooks in many European countries, including Greece. However, it seemed that the equal opportunities policy and intervention strategies for equality in the classroom, did not have the expected results, when reform efforts aimed only at the content of the teaching programs, without taking teachers into account¹.

It is commonly accepted that teachers are at the core of every effort to implement innovative policies in schools. Therefore, it is of outmost importance that those responsible for designing policies for changes and reforms in education place the teachers as the main point of reference, as their role is of high significance.^{2,3,4,5,6} This also applies when the required change concerns promoting gender equality through education. Thus, the investigation has been focused on the study of teachers as stakeholders of the educational process in an attempt to examine the way in which they operate within educational systems, sometimes as mediators of existing ideologies, and sometimes as agents of change.^{7,8}

In the context of feminist sociology of education, teachers are considered as important mediators of dominant gender relations ideologies. It is believed that

1 Arnot, M. (1995). Gender equality, critical approach and teacher education. In N. Papageorgiou (ed.) *Education and Gender Equality*. European Congress. Athens: General Secretariat for Gender Equality.

2 Fullan, M. (1991). *The New Meaning of Educational Change*. New York: Teachers College Press.

3 Heckman, P., & Peterman, F. (1997). Indigenous invention and school reform. *Teachers College Record*, 9,307-327.

4 Hubbard, L. & Datnow, A. (2000). A gendered look at educational reform. *Gender and Education*, 12(1), pp.115-116.

5 Sarason, S. (1996). *Revisiting "the Culture of the School and the Problem of Change"*. New York: Teachers College Press.

6 Wideen, M.F. (1994). *The Struggle for Change*. London: Falmer Press.

7 Makhanya, M. S. (2002). What do teachers do? A qualitative analysis of the role of the teacher. *Systemic Practice and Action Research*, 15(2), pp.142-143.

8 Giroux, H. (2001). *Theory and Resistance in Education: Towards a Pedagogy for the Opposition*. Westport: Bergin & Garvey.

teachers by their presence, interactions and behaviors in the classroom promote the reproduction of traditional perceptions on students' behaviors, performance and life choices. Thus, a very important body of research studied teachers' gender values, beliefs and practices and analyzed the ways in which they affect and shape gender identities within the school.^{9, 10, 11, 12} Feminist action research and intervention efforts in the educational process developed internationally over the past two decades and aiming at gender equality and the development of more flexible male and female identities in school, treated teachers as active persons and participants in the process of change. Educational research studied teachers' gender discourses and ideologies in order to analyze and interpret the function of teachers in the context of gender discrimination representations.^{13, 14}

Additionally, an indicative number of researches have shown that beliefs, expectations and daily practices of teachers are connected with the reproduction of gender inequalities and stereotypes, as these are expressed through gender relations in the classroom, students' achievement and life choices, their view on gender roles as well as their expectations from their adult life.^{15, 16, 17, 18, 19, 20, 21, 22, 23} At the same time, literature shows that teachers do not consider gender inequality as an educational problem and, most of the times, they are completely unaware of

9 Martin, K.A. (1998). Becoming a gendered body: practices of preschools. *American Sociological Review*, 63(4), 494-511.

10 Frosi, L. (2005). *Teachers in change process: application of the "teacher as researcher" method in teachers' in-service training on gender equity and gender relations issues*. PhD Thesis. Aristotle University of Thessaloniki.

11 Deliyanni, V., Gonida E. & Psalti, A. (2008). *Adolescence, orientations and life choices: Exploring the youth transitional processes with a gender perspective* (pp. 35-98). Thessaloniki: Aristotle University/ On Demand.

12 Panteli, Y. & Zembylas, M. (2013). Teachers' perceptions of national identity and its intersection with gender: a phenomenological study in a conflict society. *Gender and Education*, 20(4), p.392.

13 Arnot, M., Araujo, H., Deliyanni, K., Ivinson, G. & Tome, A. (2000). "The Good Citizen": cultural understanding of citizenship and gender amongst a generation of teachers. In S. Modgill, C. Modgill & M. Lester, *Political Education and Citizenship*. London: Falmer Press, 232-241.

14 Arnot, M., Araujo, H., Deliyanni, V., Rowe, G. & Tome, A. (1996). Teachers, gender and the discourses of citizenship. *International Studies in Sociology of Education*, 6(1), 3-35.

15 Allard, A. (2004). Speaking of gender: teachers' metaphorical constructs of male and female students. *Gender and Education*, 16 (3), pp.348,359.

16 Duffy, J., Warren, K. & Walsh, M. (2001). Classroom interactions: gender of teacher, gender of student, and classroom subject. *Sex Roles: A Journal of Research*, 45(9-10), pp.588-591.

17 Francis, B. (2000). *Boys, Girls and Achievement*. London & New York: Routledge Falmer, pp.137-139.

18 Francis, B. & Skelton, C. (2005). *Reassessing Gender and Achievement*. London: Routledge.

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20 Gray, C. & Leith, H. (2004). Perpetuating gender stereotypes in the classroom: a teacher perspective. *Educational Studies*, 30(1), pp.4,10,12.

21 Robinson, K. (1992). Class-room Discipline: power, resistance and gender. A look at teacher perspectives. *Gender and Education*, 4(3), pp.277,285.

22 Sadker, M. & Sadker, D. (1994). *Failing at Fairness: How America's Schools Cheat Girls*. New York: Charles Scribners Sons.

23 Warrington, M., & Younger, M. (2000). The other side of the gender gap. *Gender and education*, 12(4), pp. 503-506.

the role of the school in reproducing gender discrimination.^{24, 25, 26}

Blackmore & Kenway and Datnow support that as far as educational changes in general is concerned, the role of teachers has been investigated and documented; however, this has not been done so extensively in relation to changes regarding gender inequality.^{27, 28} Twenty years ago the literature pointed to the lack of research studying teachers' perceptions of their role as agents of change. An older research conducted by Riddell investigated how teachers understand their role as influencing students' choices and beliefs, such as their educational and gender ideologies as a means of promoting equal opportunities. Many teachers emphasized the power of external socializing influences, such as the different skills of boys and girls, parents, peer groups and socialization during the first childhood years, while they undermined the role of the school in intercepting these influences. According to the results of the investigation, most teachers support the ideology of environmental determinism.²⁹

Greek research on gender and schooling started at the beginning of the 90s, with studies on sex stereotypes in reading books and teachers' perceptions of gender and citizenship at European and national level. In Deliyanni's & Ziogou's research, Greek pre-service male and female teachers who took part in group discussions, noted -among other- their skepticism regarding schools' ability to promote change. Some teachers emphasized the power of family in formulating attitudes and beliefs in children, while at the same time denying the function of the school as socializing agent and its ability to make effective interventions.³⁰

The most recent Greek survey carried out among 1279 teachers of various specialties was conducted in the middle of 2000s in the frame of a national research program that aimed at designing and promoting intervention strategies in career guidance in secondary education. Findings regarding teachers have to do with their views on gender relations issues in general, and particularly on gender relations in school. The survey revealed significant differences between male and female teachers.³¹

24 Frosi, L. & Deliyanni-Kouimtzi, V. (2001). "If boys studied as much as girls the difference between them would be chaotic": Secondary school teachers' views on boys' and girls' achievement. In *Scientific Annals, School of Psychology, Aristotle University of Thessaloniki*, Vol. IV, pp.349-350.

25 Plucker, J. (1996). Secondary science and mathematics teachers and gender equity: attitudes and attempted interventions. *Journal of Research in Science Teaching*, 33(7), pp.9-10.

26 Tsouroufli, M. (2002). Gender and teachers' classroom practice in a secondary school in Greece. *Gender and Education*, 14(2), p.138.

27 Blackmore, J. & Kenway, J. (1995). *Changing Schools, Teachers, and Curriculum: But What about the Girls?*. In D. Corson (Ed.) *Discourse and Power in Educational Organisations*, Gresskill, New Jersey: Hampton Press, p. 116.

28 Datnow, A. (1998). *The Gender Politics of Educational Change*. London: Falmer Press.

29 Riddell, S. (1989). "It's nothing to do with me": Teachers' views and gender divisions in the curriculum. In S. Acker.(ed.) *Teachers, Gender and Careers* (p.p. 123-138). London: Taylor & Francis.

30 Deliyanni, V. & Ziogou, S. (1998). Teachers' awareness, attitudes and values on mens' and women's position in greek society: dichotomies and differences. In V. Deliyanni-Kouimtzi (Ed.), *Women and Citizenship*. Thessaloniki: Vantias. p.p.200-204.

31 Deliyanni, V., Gonida E. & Psalti, A. (2008). *Adolescence, orientations and life choices: Exploring the youth*

2. Teachers in the Greek educational system

The Greek educational system is one of the least flexible systems in Europe. Ministry of Education is exclusively responsible for almost all decisions taken regarding schools' operation, curriculum, teachers and students. In this context, the teaching profession is underestimated within the Greek society. This is one of the main sources of work stress for teachers, together with students' lack of interest and motivation. Teachers are not considered to be part of important decision making in education, even for issues that have to do with their own profession and feel tired of working in classrooms with large number of students, in disorganized and difficult to manage schools, with the absence of government support, low salaries and without adequate in-service training.^{32, 33}

Since 1982, there has been no evaluation of teachers' work. Just a few months ago, in the spring of 2014, a process of educational evaluation has started, despite the strong opposition of the teachers' trade union, the results of which have not been published yet. However, this lack of feedback and evaluation can have a strong negative impact, among others, on teachers' perception of their own role as active agents of the educational process.³⁴

In this context, whereas teachers' involvement in the reproduction of gender discrimination, as well as their influence on the development of gender identities in the classroom have been well documented, we still don't know enough about the way they perceive their own role as promoters of gender equality in education. It is very important to understand how teachers' beliefs about gender relations shape their perception of their role as socializers and agents of change.

3. The research

3.1. Research hypotheses

Based to the literature presented above, two research hypotheses will be examined in the frame of the present research

- (1) Regarding the role of the school to reproduce or mitigate gender discrimination, it is expected that teachers will express contradictory views and beliefs.
- (2) It is expected that teachers' perceptions of their involvement in promoting

transitional processes with a gender perspective. Thessaloniki: Aristotle University/ On Demand, pp. 35-98.

32 Kantas, A. (1996). Professional burnout syndrome of teachers and those working in health and care sectors. *Psychology: The Journal of the Hellenic Psychological Society*, 3(3), p.81.

33 Mouzoura, E. (2005). *Sources of teachers' professional emotional burden and coping: connection of individual and social stressors*. PhD Thesis. Aristotle University of Thessaloniki, pp.162-164.

34 Pedagogical Institute. Interdepartmental Committee on Cultural Autonomy of the Lyceum and the Dialogue on Education (2009). Proposal for the Design and Evaluation of Educational Work, pp.7-8. http://www.pi-schools.gr/paideia_dialogos/prot_axiologisi.pdf (last accessed: 20.01.2015)

gender equality in education will be part of their general perception of their professional identity.

3.2 Participants

Forty elementary and secondary education teachers, 20 men and 20 women, working in schools of the Prefecture of Thessaloniki, participated in the research. The majority of them were 36-40 years old (33%), whereas 32% were 30-35 years old, 25% were 41-45 years old and 10% were over 46 years old, with a mean age of 38,7 years old. Most of them (82,5%) live and work in Thessaloniki, a big city and 17,5 % live and work at rural areas. Data have been collected in two separate phases, in 2004 and 2012. More precisely, the forty teachers have been interviewed in 2004 and ten of them (five elementary and five secondary education teachers) have been contacted again in 2012, in an attempt to examine possible changes occurred during this period. Data collection took place in the University of Thessaloniki, at space provided by the Department of Psychology.

3.3. Methodology

Qualitative methods have been used to collect and analyse the research data. More precisely, the teachers have participated in focus groups discussions. The groups were homogeneous regarding gender and educational level of the school where participants were working.³⁵ Discussions were taped and transcribed as texts. Thematic Analysis was used in order for the research data to be analysed. The thematic analytic process followed the steps set out by Braun & Clarke. The transcribed texts have been read carefully several times and overarching theme and sub-themes have been identified, following the instructions given by Braun & Clarke.³⁶

More precisely, the analysis process has been as following:

- (a) Familiarization with the data by reading and re-reading the transcripts and noting down initial ideas.
- (b) Coding: interesting features arising from the data have been coded.
- (c) Identifying overarching themes and sub-themes: Codes have been collated into potential themes and sub-themes, gathering all data relevant to each potential theme.
- (d) Defining and naming themes: specific aspects of each theme have been refined and clear definitions and names of each theme have been identified.
- (e) Selecting extracts: extracts, relevant to research hypotheses, have been selected

35 Stewart, D. W. & Shamdasani, P.N. (1990). *Focus Groups: Theory and Practice*. California: SAGE Publications, pp.43-44.

36 Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

for each theme and sub-theme, to be used in order to support the analysis.

Researchers' aim has not been only to discover the number of teachers sharing particular characteristics of their role, but also to gain access to the role of the teacher construed by the teachers themselves through their own experiences.

The initial phase of the analytic process has revealed homogeneity of the data that have been selected during the two different time periods, with similar themes and sub-themes emerging. Therefore, all the collected data has been analysed as a whole.

3.4. Results

Two overarching themes have emerged from the analysis, following the hypotheses presented above: (a) The role of the school and (b) the role of the teachers as professionals

3.4.1. Overarching theme 1: The role of the school

This overarching theme refers to teachers' beliefs about the role of the school as a institution in promoting gender equality. Two sub-themes have been identified.

Sub-theme 1.1: The school as a place of total equality

As it has already been mentioned above, existing bibliography shows that teachers do not consider gender inequality to be an educational problem. Most of the time, they have no idea about their own role or about the school's role in reproducing gender discrimination.^{37, 38, 39}

In the present study, the vast majority of teachers construct the school as a space of total gender equality. The fact that boys and girls co-exist and are co-educated in the same area, is considered as a strong evidence of equality. *Antonis (m. sec.sch.t. of chemistry)*⁴⁰: *Gender equality issues, I mean gender inequality issues, don't exist. I'm absolutely sure. I don't know what happens at (pupils') homes or in the society, but it doesn't exist at school.*

Sub-theme 1.2: Displacement of responsibility

When some discrimination issues are identified, they are attributed to other factors, i.e with individual teachers and children, and not to the school as an institution. More

37 Frosi, L. & Deliyanni-Kouimtzi, V. (2001). "If boys studied as much as girls the difference between them would be chaotic": Secondary school teachers' views on boys' and girls' achievement. In *Scientific Annals*, School of Psychology, Aristotle University of Thessaloniki, Vol. IV, p.363.

38 Plucker, J. (1996). Secondary science and mathematics teachers and gender equity: attitudes and attempted interventions. *Journal of Research in Science Teaching*, 33(7), pp.9-10.

39 Tsouroufli, M. (2002). Gender and teachers' classroom practice in a secondary school in Greece. *Gender and Education*, 14(2), p.138.

40 (1): m=male, f=female, prim.sch.t=primary school teacher, sec.sch.t.=secondary school teacher

precisely, gender inequalities are attributed to primary socialization, i.e. socialization in the family, but also to secondary factors, such as groups of peers and television, regardless of the child's gender. However, according to Esteve, family reality is totally different to what teachers have in mind. Nowadays many more mothers work outside the home. Parents have much less time to spend with their children. Consequently today's parents have much less influence on their children. In contrary, all mass information media, especially television and the internet, seem to have an enormous influential power.⁴¹ In the present study, only two teachers clearly argued that school culture and practices are closely related to and promote inequality between men and women. Most teachers of the primary and secondary schools, *displace the responsibility* regarding children's education and in particular, concerning gender issues. Primary school teachers, both male and female, consider family to be almost exclusively responsible, and on a second level, television, for shaping children's personality, their performance in school but also gender relations.

Natassa (f. prim.sch. teacher): *Children coming from lower class families share the idea that women are inferior to men, that men and women are assigned particular roles from birth.... However, children belonging to other types of families, where parents share a different perspective about the sexes and gender roles, develop less traditional views.*

Secondary school teachers emphasize the power of the Internet to affect and shape teenagers's, views, beliefs and attitudes, taking into account the amount of time the latter spend surfing in various websites, which are nowadays their main source of information. As one of them supported' "*teenagers have deified the internet, thus it greatly affects their views on all issues and on gender relations too*"

It is also interesting that secondary education teachers consider the teacher of the primary school to be a significant factor of pupils' socialization, adding to family and television, since he/she has the chance to teach children at a very young and impressionable age. However, interesting differences are identified among the participants of our research, with primary school teachers arguing that family first and then television are the most dominant factors that shape children's personalities and behaviour and secondary school teachers supporting the view that family comes first, followed by television and the school.

Aris (m.sec.sch.t. of physics): *Today's school can do nothing on these issues. It can't contribute either to help a person grow, much less to promote equality. Television does most of the work, family too. Sometimes, family seems to be leaving children's education up to television. Primary school teachers could perhaps act in a way, because children at this age are still very young. However, I don't see them trying anything. When children come to us (meaning secondary*

41 Esteve, J. (2000). The transformation of the teachers' role at the end of the twentieth century: new challenges for the future. *Educational Review*, 52(2), p.200.

education) it's too late. Their personalities have already been shaped, the damage has been accomplished and there is nothing you can do anymore.

Moreover, secondary education teachers, both male and female, justify their own “lack of action” as a result of the secondary educational system itself, which is exercising a great amount of pressure on both children and teachers, especially in Senior High School. Greek society and the average Greek family are characterized by an extreme worship towards university, i.e. higher studies are considered necessary for any type of professional success. Therefore, the Greek family is investing a great deal on their children succeeding in entry exams. This reality, in combination with a totally centralized educational system, which controls all aspects of schooling -the development and the content of the curriculum, teaching methods, reading material and pupils’ preparation for a specific type of examinations- focuses on, or even entraps, the totality of the educational process in the sole purpose of achieving the goal, which is nothing else than pupils making it to University. The teachers who focus on this issue construct a dehumanized school of endless, intensive and mechanized work, which competes with private tutoring schools. The teachers themselves are only acting on a knowledge transfer level and neglect any other aspect of the educational process and their own role in it.

In the quote below, the female teacher speaking seems to adopt an attitude of total subordination, even if she feels suffocated by the job conditions she is experiencing as a civil servant. Although she does recognize the existence of more general problems regarding children, classroom or even gender issues she is not motivated to take action, because she considers that teaching courses is the first priority of her professional role.

Chrysa (f.sec.sch.t. of Greek language & literature): I don't know if you are aware of what is going on in Senior High Schools. I have been working in Senior High Schools for years and I can assure you that I don't have the time to cover the entire curriculum and sometimes I have to use hours from other courses, like physical education, to make it. The system with the exams and everything is so exhausting that we don't have time to relax with the children, to discuss their problems and worries. Personally, I don't want to look bad to the teachers at the private tutoring schools so I focus on the curriculum, I have no choice. I am not saying that there are no problems, even perhaps gender related problems, but I really cannot occupy myself with them, I consider it a luxury, especially in Senior High Schools.

3.4.2: Overarching theme 2: The role of the teachers

This overarching theme includes teachers’ beliefs about their own role in promoting equal gender relations in the classroom. It has to do with their construction of their professional identity and their involvement as active agents in a process of social

change. Three sub-themes have emerged in the frame of overarching theme 2:

Sub-theme 2.1: The insufficient and helpless teacher

The teachers participating in the research, both male and female, construct the image of a teacher for whom communication and daily interaction with the children is of utmost importance. However, their knowledge on issues of communication, psychology or pedagogy is insufficient. This insufficiency is been attributed to the fact that they have not been sufficiently trained in the frame of their initial education, which results to a lack of confidence, when they have to handle interactions and communicative issues. This, in turn, leads to their unwillingness to take any action and initiative. In accordance to research findings presented above the teachers of our study emphasize their need for in-service training, the design and implementation of which, however, should be entrusted to a non-specific agency of Ministry of Education.

Xenia (f.sec.sch.t. of biology): *Look, I can see many problems concerning both, boys and girls.*

Question: *What kind of problems?*

Xenia (f.sec.sch.t. of biology): *Usually conflicts with their parents, or related to their romantic relationships. Sometimes they share their problems with me, especially girls. I listen to them and I try to give them a piece of advice, but I don't know if I'm doing it right. I'm not sure that I am able to offer them the help they need. I follow my instinct rather than knowledge.*

Panayiotis (m.sec.sch.t. of Greek language & literature): *Only those of us who have studied in the faculty of philosophy try to do something more - not that we are better or possess a better way to handle such situations, I would rather say that we are just more sensitized than teachers educated in other faculties. However, the way each of us can use this knowledge, is a different question...In particular, regarding equality issues, it's just what we know from our daily life. Nothing more.*

Kostas (m.sec.sch.t. of physics): *I wish we knew what to do and how to act. Nowadays the problems a teacher has to face at school are far more than when I started to work. Actually, sometimes I give up!*

Question: *Do you feel insufficient?*

Kostas (m.sec.sch.t. of physics): *Yes, I feel insufficient, and my other colleagues feel the same. And I don't know who could help me in the school.*

Aris (m.sec.sch.t. of physics): *A teacher cannot intervene in the relations of boys and girls nor do I know how to...[...] I think the school should change a bit so that we can have some guidelines[...]I don't know anything more than what I teach...so only the properly educated teacher can help create a new scheme: how should the relations between boys and girls be? What is equality? None has ever taught me.*

The above quote is in accordance with findings of similar studies. For example in Meyers' research that focuses on Canadian teachers' perceptions of and responses to gendered harassment in secondary schools, most teachers felt that their teacher education programmes did not sufficiently prepare them to address incidents related to gender and sexual orientation.⁴² Another example is the research of Lahelma et al. with Finnish teachers of vocational schools who consider themselves as not being adequately educated in order to be able to introduce the ethic of caring in their teaching⁴³.

Sub-theme 2.2: “Specialists” in schools

As pointed out by Deliyanni-Kouimtzi, pre-service teachers, both male and female, tend to transfer responsibility for teaching issues of good citizenship to “appropriate” and “special” scientists as pre-service teachers participating in their research did not consider that promoting changes inside the classroom could be among their aims as educators.⁴⁴

The participants of the present study see the “experts” as the solution to problems arising during the teaching process, without the simultaneous participation of all other involved parties, i.e. the children themselves and the parents. Two male secondary education teachers used the phrase “*It's not my business*”, when they were asked to talk about their role in solving problems related to students' sexist behaviors.

Katerina (f.sec.sch.t. of Greek language & literature): *What I know is that there are school psychologists in the schools of the rest of Europe. They deal with children's problems, i.e. problems in the family, aggression, bullying or problems arising in the relationships between boys or girls. They do know how to deal with problems and how to solve them. Here (in Greece) people wait for the teacher to solve all the problems, to teach, to act as the secretary and to do the job of the psychologist too. I think the psychologist is the solution.*

This ideological position, that a good teacher's teaching skills is the only necessary quality relieves the teachers from the pressures and the responsibilities of resolving problems faced daily in school, restricts their educational role and eventually eliminates the pedagogical character of their profession. Moreover, it reveals the teachers' insecurities and their need for in-service training on social, psychological and pedagogical subjects, as well as their need to practice on

42 Meyer, E. (2008). Gendered harassment in secondary schools: understanding teachers' (non) interventions. *Gender and Education*, 20(6), p.560.

43 Lahelma, E., Lappalainen, S., Palmu, T. & Pehkonen, L. (2014). Vocational teachers' gendered reflections on education, teaching and care. *Gender and Education*, 26(3), pp.298,302.

44 Deliyanni-Kouimtzi, K (2000). Gender and Education for citizenship: promoting educational values and values education in Greece. In S. Modgill, C. Modgill & M. Lester, *Political Education and Citizenship*. London: Falmer Press, p. 239.

handling relationships and different behaviors within the school. It is remarkable that the finding “specialists in school” have also been identified recently in another Greek research on students’ aggressiveness⁴⁵.

Sub-theme 2.3: The active teacher

Some of the participants in the group discussions expressed beliefs which depicted the school as a mechanism of social reproduction and the teacher as the means to achieve social transformation.

The first of the excerpts below shows how school is constructed as a copy of the society and, therefore, how, inevitably, the structure and the commitments of the society also apply in the educational field. This means that the school is assigned a passive role, as it is perceived to be totally shaped by the society and functioning under its complete control, unable to create or promote new social conditions. In the last two excerpts, the school is seen as having an active role which, nevertheless, seems to reinforce the currently dominant ideologies regarding the roles of the sexes and to reproduce gender inequalities, which are expressed through the traditional allocation of roles - an allocation which is constructed to be as the most socially acceptable. And this is where the ideology of the functionalistic role of the school is manifested.

Andreas (m.prim.sch. teacher): *Some small steps have been taken compared to the past curriculums. [...] I will agree with my colleague that since society is structured in this way, the school is a creation of this society and it can't function any differently.*

Giorgos (m.prim.sch. teacher): *School has never been progressive. [...] Within this framework, it reproduces, to some extent, the traditional roles of men and women which are also the most accepted roles by society.*

Stella (f.sec.sch.t. of Greek literature): *The school has always served the dominant class, the ideology of the bourgeoisie or the upper class and has always sustained class inequalities. It is the same with gender equality. Men take decisions and dominate financially, and the school sustains this status, men are the stronger, more competent in public life, and women often stay at home, this is considered as normal and we accept it unquestionably, believing that this is how it should be.*

The school is considered to be a conservative institution which normalizes the distinction and sustains existing gender divisions, thereby neutralizing any relevant reactions or questions. School educates, it depends on the teacher, however, if education will follow a conservative or a progressive direction. In this point we can recognize the presence of a resistance-critical ideology. Some of the

45 Papalazarou, A. (2015). *Aggressive Behavior among Students in High Schools: Teachers' Perspective*. Unpublished thesis. Thessaloniki: Department of Psychology, pp.35-36.

teachers, who have drawn from the “active teacher” repertoire, see themselves as agents of change regarding the promotion of gender equality, whereas some others perceive this action only in relation to the educating process in general.

Antonis (m.sec.sch.t. of chemistry): [...] *Of course both, we and the school, can bring the change. But I don't speak about gender issues. As I already said, I don't believe that there is any relevant problem, especially in schools. However, we can do things against racism, about peace, we can teach students the solidarity.*

Arete (f.sec.sch.t. of chemistry): *There are opportunities in or out of the class, I mean in various events taking place in the school, in celebrations or in excursions, during the breaks, many opportunities.*

Alexandros (m.sec.sch.t. of greek literature) :... *We as teachers are responsible for what goes well or wrong.*

The teacher is made out as having the ability to work beyond the boundaries set by the curriculum or to utilize it in a better way, in order to pass on values to the children. This is, of course, a double-edged sword according to the teachers, because the ability to formulate and create values can have a positive or a negative effect, depending on the content of said values.

Marianna (f.prim.sch. teacher): *Unfortunately, we do pass on our personal beliefs to the children. We can't be objective on many things.*

Lena (f.prim.sch. teacher): *I also believe that the teacher can pass on anything, depending on his or her life experiences. I mean, we don't always follow the school book.*

Question: *Why should it be a matter of life experiences? Doesn't the teacher receive education and training?*

Lena: [...] *When we graduated a number of years ago, the role models and the social directions were different. Shouldn't teachers receive additional training depending on the new conditions, every time?*

By taking for granted the ability of the teachers to pass on their own values to children, they acknowledge the significance of their own education, which can complement their experiences with scientific knowledge and in the end, affect both the content of the messages as well as the way in which these can get through to the children in a more effective manner. In describing the additional school activities, such as celebrations, various events and excursions, as conditions which give the teacher the ability to be more active, the teachers validate the view that, changes on gender relations can be promoted through interventions.

Some teachers are using some sort of “moral” discourse regarding the alleviation of gender inequality within the school. In the first except, there is a discussion about inequality against boys, while the second talks about inequality against girls. Despite the fact that the goals of the actions are obviously different, the discourse expressing some sort of “debt” remains the same and constructs school as potentially able to create an environment of equal opportunities for both genders.

Aris (m.sec.sch.t. of physics): The school needs to offer children equal opportunities, to treat children equally. How can there be equal opportunities when a girl is biologically two years ahead of a boy? The school must take this under consideration.

Areti (f.sec.sch.t. of Greek language & literature): Listen. Inequality, and not only between the genders, but also social inequality, class inequality... but, since we are discussing about gender now, I'll stick to that – I can see that inequality. The thing is...when you see a problem, you have to solve it. It is the state's debt, the obligation of the state, of the school, of the high school teacher; to take some measures. What sort of measures, I haven't thought of that.

3.5. Discussion - Giving meaning to the beliefs about the role of the school and the teachers in promoting equality

Data analysis presented above has revealed the way teachers of our sample perceive the role of the school as well as their own involvement in promoting equal gender relations in the school context. In the present chapter our findings will be discussed in relation to the two research hypotheses and the existing bibliography.

According to the first hypothesis it was expected that teachers would express contradictory views and beliefs about the role of the school in gender discrimination issues. As the analysis has shown, this hypothesis has been only partly verified given the fact that the contradictory views of the participants result in a consensus, in a common conclusion that issues of gender relations have no place in the education agenda, because they do not exist as an educational problem. In fact what teachers do is promoting the idea of a gender neutral school, an idea emerging more and more in the contemporary Greek context during the last years. More precisely gender discrimination and inequalities are not recognizable in the same way as in the past, because it is evident that the structure of the school and boys' and girls' presence in the school context has significantly changed.⁴⁶ Thus, the socializing role of the school as an institution is undermined whereas, at the same time, the role of other institutions (i.e. the family or the mass media) is reinforced regarding their ability to formulate behaviors, create role models and pass on values as well as to exercise social control and authority. In this way by adopting the deterministic function of the school and by ignoring its ability to create codes of value, attitudes and choices teachers construct a notion of the school as denuded from its pedagogical character.

As far as the second hypothesis it was expected that teachers would perceive their role in promoting gender equality as part of their professional

46 Gonida, E., Deliyanni, V., Kiosseoglou, G., Psalti, A., Kouimtzi, E. & Zafeiropoulos, K. (2008). *Adolescences' educational and occupational choices: investigating gender equality issues in the beliefs of pupils, teachers and parents, Vol.B.* Thessaloniki: On Demand. p.p. 526-529. (in Greek)

identity. This hypothesis has also been partly verified by the analysis, given the fact that the minority of the participants construct their identity in this way. As it has already been shown, most of the teachers seem to do not recognize their ability to influence the social reality of the school by denying their social responsibility. By displacing this responsibility or proclaiming the necessity for “experts” in schools they relieve themselves from the responsibility of anything relevant to gender equality and not only. At the same time, they choose to adapt themselves to or adopt the status-quo regarding the social position of girls and boys, or men and women and the unequal gender relation, contributing, thus, in the reproduction of the existing social reality. Different construction of professional identity has emerged. This is expressed through the adoption of an interventionist or balancing character of the school and the construction of the notion of the active teacher. In this way the school becomes a significant institution, able to promote social intervention, regardless of the content or the purpose of the intervention. This ability is not limited only to promoting gender equality but aims to a variety of social or other issues, such as racism, peace and solidarity. The teachers, by emphasizing the social role of the school, construct a powerful and worthy school and themselves as agents of change.

By expressing their beliefs on the role of the school and the teachers, the participants of our study demonstrate their ideology regarding the school as a socializing institution while negotiating, at the same time, their professional identity, the most dominant among other expressed identities, since it represents the main reason for their involvement in the research.

This last finding is not supported very strongly by the existing bibliography and, therefore, it has to be investigated more in depth. However, it has to be noted that by discussing, thus, about the active teacher, the participants in the research, both male and female, create their identity as resisting the status-quo and at the same time, construct themselves as socially active subjects. This is very promising for both the Greek school and the Greek society in general.

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Katsoulou Fotoula

**Adopting Strategic Planning
in Greek Public Schools.
Does it really Work?
A Case Study**

Περίληψη

Το άρθρο παρουσιάζει το στρατηγικό σχεδιασμό ενός ελληνικού δημοσίου σχολείου για την αντιμετώπιση της βαθμιαίας συρρίκνωσης του μαθητικού πληθυσμού, που θέτει σε κίνδυνο τη βιωσιμότητά του. Παρουσιάζονται οι θεωρητικές πτυχές των στοιχείων της στρατηγικής διοίκησης: στρατηγική ανάλυση-στρατηγική επιλογή-στρατηγική εφαρμογή. Η νέα διεύθυνση, με προσεκτική εξέταση του περιβάλλοντος και του σχολικού συγκείμενου, θα δημιουργήσει κουλτούρα στρατηγικής κατεύθυνσης και αλλαγής. Το συμπέρασμα είναι ότι ο συνδυασμός ενός παιδαγωγικού και επιχειρηματικού ηγετικού στυλ μπορεί να καθορίσει αυτόνομα μια επιτυχή πορεία με μακροπρόθεσμα αποτελέσματα. Στο παράρτημα αναλύεται το στρατηγικό σχέδιο, με στόχο να συνδεθεί, μέσα από την απτή απεικόνιση, η θεωρία και η πράξη.

Abstract

This article presents the strategic planning of a Greek public school. The gradual

student enrollment reduction endangers its viability, challenging the newly appointed principal to adopt strategic management. The theoretical aspects of strategic planning are explored through a critical analysis of the school context. The educational organization is engaged in environmental scanning, strategic choice and implementation, achieving a culture of strategic direction and change. The final conclusion is that the combination of an instructional and entrepreneurial style of leadership contributes significantly to the autonomous, long-term successful existence towards the future. The strategic plan in the appendix links theory to practice.

1. Introduction

Nowadays, organizations operate within a non-reversible, dynamic environment, which determines their context¹. Strategic planning is considered to be a means of sustainability and evolution of educational organizations, since, if compared to other socioeconomic sectors, education is up against more complex and multidimensional problems². The ability of schools to strategically predict and envision the future becomes necessary, since their mission is to prepare the citizens of tomorrow today³. Only through the implementation of future thinking schools will be well-equipped to educate students, who start school today and will complete their compulsory education in 2027, thus meeting yet unknown knowledge, technology and science.

The objective of this article is to present the theoretical aspects of strategic planning through a critical analysis of a case study of a Greek public primary school, taking into consideration its specific features and operating context. Initially, the key elements of strategic management are investigated and then the general school context is thoroughly analyzed. Finally, a complete strategic planning is developed, which not only provides effective solutions to specific challenges, but also plays an important role to its transformation into a learning organization. This article contributes to the understanding of the importance of adopting and integrating strategic planning into education, a philosophy which Greek school principals do not generally adopt. If schools obtain a strategic situational awareness, then they

1 Evers, C. W. & Lakomski, G. (2012). Science, systems, and theoretical alternatives in educational administration: the road less travelled. *Journal of Educational Administration*, 50(1), p.70; Sullivan, T. J. (1999). Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 412.

2 Chang, G. C. (2008). Strategic planning in Education: Some concepts and methods. In: M. Bray & N. V. Varghese (eds.) (2010), *Directions in Educational Planning: Symposium to Honour the Work of Francoise Caillods*. (Paris 3-4 July 2008). Paris: UNESCO IIEP, p.10; Stylianides, M. & Pashiardis, P. (2007). The future of our schools: An example of the Delphi technique in action and the case of Cyprus. *International Journal of Educational Management*, 21(5), p. 385.

3 Τσιάκκρος, Α. & Πασιαρδής, Π. (2012α). Στρατηγική ανάλυση- (I) Το εξωτερικό και ανταγωνιστικό περιβάλλον των οργανισμών. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 91.

will be able to adequately evaluate and apply their options. Consequently, they will be reformed by identifying and responding to social demands, thus upgrading the quality of public schooling and holistically the entire education system⁴.

2. Basic theoretical aspects of strategic planning

According to Tsiakkiros and Pashiardis⁵, strategic planning is defined as the process of any organization to create, select and implement a particular strategy in order to respond to forthcoming events. One of the factors of successful implementation before planning is considered to be strategic prediction⁶. Since successful organizations lead the evolutions whereas others simply follow⁷, school leaders who predict, envision and adapt flexibly, obtain an advantageous viewpoint promoting their competitive advantage⁸.

Schools are not isolated islands⁹. Instead, they are affected by rapid changes, thus making the equilibrium difficult to maintain. Consequently, strategic planning can provide important benefits; it compensates for the uncertainty of dynamic environments and allows proactive future planning to effectively address the constantly changing demands in a community¹⁰. Additionally, it ensures the dedication and collaborative effort to achieve goals, it conveys and specifies them to external stakeholders and it facilitates feedback-providing operations, i.e. monitoring, review and evaluation for necessary adjustments to remedy any deviations¹¹. Finally, strategic thinking and decision-making are encouraged as

4 Τσιάκκιρος, Α. & Πασιαρδής, Π. (2012α). Στρατηγική ανάλυση- (I) Το εξωτερικό και ανταγωνιστικό περιβάλλον των οργανισμών. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 100.

5 Tsiakkiros, A. & Pashiardis, P. (2002). Strategic planning and education: the case of Cyprus. *International Journal of Educational Management*, 16(1), p. 6.

6 Στυλιανίδης, Μ. (2008). Στρατηγική προοπτική διερεύνηση του μέλλοντος του κυπριακού σχολείου: Μια σύγχρονη προσέγγιση ανάπτυξης στρατηγικού σχεδιασμού και εκπαιδευτικής πολιτικής. Πρακτικά 10ου Συνεδρίου Παιδαγωγικής Εταιρείας Κύπρου (Λευκωσία 6-7 Ιουνίου 2008). Λευκωσία, p. 895.

7 Μπρίνια, Β. (2008). *Management Εκπαιδευτικών Μονάδων και Εκπαίδευσης*. Αθήνα: Σταμούλης, p. 354.

8 Crossan, M., Vera, D. & Nanjad, L. (2008). Transcendent leadership: Strategic leadership in dynamic environments. *The Leadership Quarterly*, 19(5), p. 572; Goldman, E. F. & Casey, A. (2010). Building a culture that encourages strategic thinking. *Journal of Leadership & Organizational Studies*, 17(2), p. 120.

9 Marzano, R. J., Waters, T. & McNulty, B. A. (2005). School leadership that works: From research to results. *Association for Supervision and Curriculum Development*, p. 58.

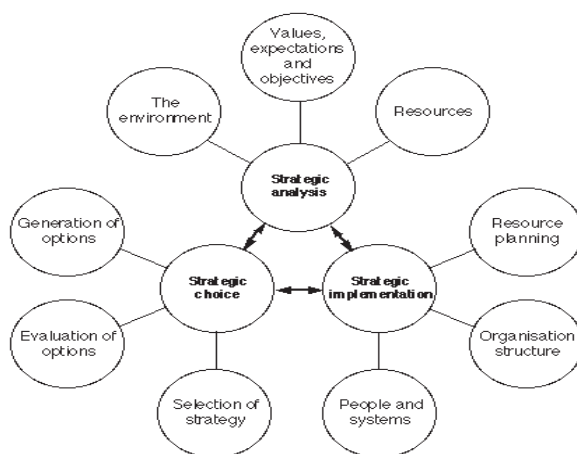
10 Bell, L. (2002). Strategic planning and school management: full of sound and fury, signifying nothing? *Journal of Educational Administration*, 40(5), p. 408; Gamage, D. T. (2009). Managing School Change: Continuous Improvement Based on a Shared Vision and a Strategic Plan. *Decentralisation, School-Based Management, and Quality*, 8, p. 105; Τσιάκκιρος, Α. (2012α). Η Στρατηγική πρόγνωση του μέλλοντος/Εισαγωγή στην έννοια της Στρατηγικής. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 31.

11 Chang, G. C. (2008). Strategic planning in Education: Some concepts and methods. In: M. Bray & N. V. Varghese (eds.) (2010). *Directions in Educational Planning: Symposium to Honour the Work of Françoise Caillods*. (Paris 3-4 July 2008). Paris: UNESCO IIEP, p. 3; Πασιαρδής, Π. (2012). *Επιτυχημένοι Διευθυντές Σχολείων: Διεθνείς ερευνητικές τάσεις και η ελληνική πραγματικότητα*. Αθήνα: Ίων, p. 216.

well as experience provides feedback, thus minimizing the waste of resources (energy, cost, time) and maximizing efficiency, effectiveness and quality¹².

Strategic planning translates philosophy into mission and long-term vision into action. The vision can be conveyed verbally (strategic discussion), as well as in writing (official projects) or structurally (integrated priorities)¹³. Eacott¹⁴ explains that there is not a generic, perfect way to conduct strategic planning. Instead, as Johnson and Scholes¹⁵ present in their model (Diagram 1), there are typical stages, which involve similar activities and specific sequence: strategic analysis, strategic choice and strategic implementation.

Diagram 1. The Johnson and Scholes model



Source: Johnson & Scholes (1993), p. 23.

The cycle begins with the analysis of the current situation of the system in relation to its external and internal environment, using suitable strategic tools¹⁶. One tool is PESTE analysis, depicting the most important environmental factors (political, economic, sociological, technological and educational), which

12 Marzano, R. J., Waters, T. & McNulty, B. A. (2005). School leadership that works: From research to results. *Association for Supervision and Curriculum Development*, p. 60.

13 Davies, B. & Davies, B. (2009). Strategic Leadership. In: B. Davies (ed.). *The essentials of school leadership*. London: Paul Chapman Educational Publishing, p. 17.

14 Eacott, S. (2008). Strategy in educational leadership: in search of unity. *Journal of Educational Administration*, 46(3), p. 365.

15 Johnson, G. & Scholes, K. (2005). *Exploring corporate strategy-Text and cases* (3rd edition). Hertfordshire: Prentice Hall, p. 23.

16 Bassett, P. F. (2012). Strategic Planning Is an Oxymoron. *Independent School*, 72(1), p. 9; Wong, E. O. (2005). Operationalization of strategic change in continuing education. *International Journal of Educational Management*, 19(5), p. 386.

influence an educational system and its function. Another tool is considered to be SWOT analysis, identifying the system's strengths, weaknesses, opportunities and threats¹⁷. Although PESTE analysis is often linked with SWOT analysis, the two methods focus on different areas; the former specifies objectives by looking at "big picture" factors that might affect an organization, while the latter explores these internal and external factors in order objectives to be achieved¹⁸. However, both tools develop a full awareness of the situation of any organization.

Diagram 2. The Strategic Management Cycle



Source: Chang (2008), p. 4.

Next, alternatives are formulated and appraised, the final choice is determined and implemented through strategic management and finally policy orientations are provided. Responsibilities and resources are allocated, structures and operations are explored and redesigned, leading to a complete organizational change both incrementally and evolutionary¹⁹ (Diagram 2). This ultimate time-consuming and difficult stage is never actually completed, because implementation, the ultimate testing of planning, is highly corrosive; being an entire systematic

17 Tsiakkios, A. & Pashiardis, P. (2002). Strategic planning and education: the case of Cyprus. *International Journal of Educational Management*, 16(1), p. 12.

18 Wong, E. O. (2005). Operationalization of strategic change in continuing education. *International Journal of Educational Management*, 19(5), p. 386.

19 Chang, G. C. (2008). Strategic planning in Education: Some concepts and methods. In: M. Bray & N. V. Varghese (eds.) (2010). *Directions in Educational Planning: Symposium to Honour the Work of Françoise Caillods*. (Paris 3-4 July 2008). Paris: UNESCO ΠΕΡ, p. 7; Τσιάκκιος, Α. (2012β). Στρατηγική επιλογή. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 175.

process, it penetrates all levels of the organization, constitutes the starting point for changes and turns out to be a learning experience for the people involved²⁰.

3. A Critical Analysis of the Case Study

Bell²¹ considers strategic planning as an elusive concept, since it does not evolve into a good linear progress from analysis to implementation. If a factor is modified during action, objectives are reformed accordingly, plans are changed and new ones are developed. However, the vision remains the same. Strategic planning is classified as medium-term in the educational sector, as it usually runs for 3-5 years²². Therefore, it is suitable for Greek school principals, whose term of office usually lasts 4-5 years.

3.1. Methodology and data collection

Settings like schools, in which people have complex interactions with each other, can be usefully examined through informal participant observation²³. It is a qualitative and interactive experience, relatively unstructured, which provides the observer with freedom as to what and how information will be collected²⁴. As a result, the data generated are free flowing and the analysis much more interpretive than in direct observation. The author, as a school teacher, informed only the principal, not the teachers, about the conduct of the observation with the use of notes and digital recordings of informal actual conversations and attendances in teacher meetings. Despite the risk of “dishonesty”, selective attention and memory, this option reduces the biases resulting from the intrusion of the researcher or measurement instrument (behaviour change), and at the same time it integrates the observed behavior into its physical context.

3.2. Particular features of the Primary School

A new principal has been appointed in a small, provincial primary school. He has over 20 years' experience in public education, going through the maximum professionalism phase²⁵. The majority of the 12 teachers have 15-25 years of

20 Carron, G. (2010a). *Strategic Planning. Concept and rationale*. Paris: UNESCO, p. 19; Gamage, D. T. (Ed.). (2006). *Professional development for leaders and managers of self-governing schools*. Dordrecht, Springer, p. 149.

21 Bell, L. (2002). Strategic planning and school management: full of sound and fury, signifying nothing? *Journal of Educational Administration*, 40(5), p. 415.

22 Carron, G. (2010c). *Strategic Planning. Techniques and methods*. Paris: UNESCO, p. 7.

23 Robson C. (2007). *Η έρευνα του πραγματικού κόσμου*. Αθήνα: Gutenberg, p.367

24 Robson, C. (2007). *Η έρευνα του πραγματικού κόσμου*. Αθήνα: Gutenberg, p.372

25 Αθανασούλα-Ρέππα, Α. (2008). *Εκπαιδευτική Διοίκηση και οργανωσιακή συμπεριφορά*. Αθήνα: Ίων, p. 205.

working experience and a large number of them hold MAs, including the school administration (principal, assistant principal). All teachers work in this same school for 3-5 years, except for the principal. Although, the socioeconomic status (SES) of the 87 pupils is characterized medium to high, parental interest and involvement in school activities is limited. However, the major concern of all school members is the year after year expanding drop-off in total school enrollment. During his first meeting with the parents' association board, the principal realizes that more than 150 children, aged between 6-12 years old, live permanently within the district.

However, parents choose to turn away their children from this school and prefer to enroll them in city schools about 20 km away due to an important reason. According to the president of the parents' board, there are serious phenomena of antisocial behavior and vandalism at school, which have lately been increased. In particular, teenagers and old graduates trespass upon the school premises to have fun or convey their own message during non-working hours. The result is the damage of the school property and other public spaces. In fact, the school board confirmed that broken windows often had to be substituted and exterior walls had to be painted to cover graffiti, embarrassing slogans or bad language.

The principal's vision is to create a safe and creative school not only for his students, but for all children in the community. His primary goals are the increase of enrollments, the improvement of students' learning outcomes, the stimulation of parental involvement in school life and the financial school support from local stakeholders. In order to achieve his vision, he calls a teacher board meeting and makes it known in the beginning of the school year. All teachers agree that the common pursue should be the creation of a safe and healthy school environment. However, in order to handle the vandalism incidents the teachers put forward two main conflicting proposals:

- the first is in favor of adopting strict security measures, involving security cameras, inaccessible entrance and walls, police intervention, possible hire of private security guards, and
- the second argues for the opening of the school to the local community during non-working hours.

Most teachers are in favor of the first suggestion and think that the only way to make a safe school again is to apply strict measures, e.g. ask the local police to integrate the school in night patrol programs. On the other hand, few teachers support that the school community is a "living" cell, the doors should be open for all children, who have nowhere else to go and that the school premises are their only way out. The principal presents examples of schools that have implemented such measures and had the same or worse results. Moreover, he emphasizes that strict measures have a significant cost, which the local municipality cannot afford. A

teacher informs the board about an intervening program, called “Open Schools”²⁶, already implemented in public schools by the Ministry of Education in Cyprus, which aims at utilizing all school spaces as centers of culture, sports and creativity during nonworking hours. He volunteers to help organize a similar project. Another teacher strongly believes that “If we make outsiders feel the school as their own, not only will they stop destroying it, but they will themselves protect it”.

The principal asks teachers to reflect on the proposals and to repeat the meeting. Next morning all are surprised to see that intruders had caused serious vandalism again (destroyed exterior walls from fire, crashed plants and scattered soil). The principal notifies the Directorate of Primary Education, the parents’ association, the school board and the local police station. Concerned parents come to school to help clean it. The principal is calling for a new meeting the same afternoon. When lessons finish, he leaves a note on the burnt corner of the school yard, inviting the unknown intruders to meet and discuss.

3.3. Positive and negative aspects of the school

The number of students is considered a positive aspect of the school. It has only 87 students with high learning outcomes and medium to high SES. Moreover, there are 12 experienced, aged 32-55, highly qualified permanent teachers. Therefore, there is quality and maturity of the human capital²⁷, since teachers, who work steadily in a school create a positive climate, a satisfactory academic performance, a collaborative culture, and personal ties²⁸. Thus, there is no anonymity among students and teachers, while distance, impersonality and incivility disappear. Hoy and Miskel²⁹ indicate that urban schools can hinder attempts to change, due to lack of communication among the large number of students and the limited duties and invisibility of teachers. The primary school under study is therefore significantly advantaged if compared to others, because a sense of connection, communal responsibility and accountability can be built by fostering strong bonds among staff and students.

The principal’s vision, a safe and attractive school for all children, is moral, ambitious and human, puts the staff in the centre of the mission and creates the sense of “belonging”³⁰. He notifies this vision to the teachers and

26 Υπουργείο Παιδείας και Πολιτισμού. (2007). Στρατηγικός Σχεδιασμός για την Παιδεία, Η Ολική Αναθεώρηση του Εκπαιδευτικού μας Συστήματος. Λευκωσία, p. 43.

27 Davies, J., Douglas, A. & Douglas, J. (2007). The effect of academic culture on the implementation of the EFQM Excellence Model in UK universities. *Quality Assurance in Education*, 15(4), p. 397.

28 Murakami-Ramalho, E. & Wilcox, K. A. (2012). Response to intervention implementation: A successful principal’s approach. *Journal of Educational Administration*, 50(4), p. 495.

29 Hoy, W. & Miskel, C. (2013). *Educational Administration: theory, research and practice*. (9th Ed.). New York: McGraw-Hill, Inc, p. 319.

30 Τσιάκκιρος, Α. (2012α). Η Στρατηγική πρόγνωση του μέλλοντος/Εισαγωγή στην έννοια της Στρατηγικής.

asks their opinion, showing a democratic person, willing to inspire, engage and implement a participative style of leadership and not an administrative one³¹. The agreement among the principal and the stakeholders on the values for common good provides a basis for consensus-building³². In addition, the disagreement on methods and not on individuals is indicative of an effective group of people, capable of involving in a healthy and fruitful dialogue³³.

The contacts with the teacher board and the concern of the members of the local community reveal an intention for cooperation and solidarity in fighting against and eliminating vandalism, while the existence of the good infrastructure (football grounds, multi-purpose hall, gym, computer rooms) provides opportunities for use and exploitation for the benefit of every citizen. Finally, a critical mass of teachers exists, who argue strongly in favor of the opening of the school and ensures a team of dedicated and eager followers of the principal³⁴.

Among the negative factors is the fact that the principal, as a newcomer, does not belong to the teacher board and is not familiar with the existing culture. External school networks and thus environmental feedback are totally absent, making the school vulnerable³⁵. Vandalism reduces enrollments, shrinking the number of students. The school is in danger of being shut down, proving that demographic factors, parents and choices, as inputs which can seriously influence an educational organization³⁶. As Hansen (2011) observes, the more the students the less severe is the economic pressure, thus eliminating insecurity and allowing the school to focus on better learning outcomes. Finally, the fact that old students engage in anti-social behavior because they have no other means of expression and creative activities, the existence of a large number of potential new students in the community (150 children), the economic and time-consuming burden of families to take their children to city schools every day, the lack of financial resources from the community council due to the economic crisis, are unprecedented opportunities that the principal can exploit. Thus, conditions for change are created that facilitate the change itself³⁷.

In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 63.

31 Eacott, S. (2008). Strategy in educational leadership: in search of unity. *Journal of Educational Administration*, 46(3), p. 361.

32 Busher, H. & Barker, B. (2003). The Crux of Leadership Shaping School Culture by Contesting the Policy Contexts and Practices of Teaching and Learning. *Educational Management Administration & Leadership*, 31(1), p. 60.

33 Fontaine, J., Debus-Sherrill, S., Downey, P. M. & Lowry, S. S. (2010). *Violence Prevention in Schools: A Case Study of the Thurgood Marshall Academy Public Charter High School*. Final Report. Washington, DC: U.S. Department of Education and U.S. Department of Justice, p. 37.

34 De Jong, J. P. & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of innovation management*, 10(1), p. 44; Everard, K.B. & Morris, G. (1999). *Αποτελεσματική Εκπαιδευτική Διοίκηση*. (transl.) Δ. Κίκιζας, Πάτρα, Ελληνικό Ανοικτό Πανεπιστήμιο, p. 268.

35 Sergiovanni T. J. & Starratt R. J. (2002). *Supervision: A Redefinition* (7th Ed.). New York: McGraw-Hill, p. 44.

36 Πασιαρδής, Π. (2004). *Εκπαιδευτική Ηγεσία: από την περίοδο της ευμενούς αδιαφορίας στη σύγχρονη εποχή*. Αθήνα: Μεταίχμιο, p. 28.

37 Sergiovanni T. J. & Starratt R. J. (2002). *Supervision: A Redefinition* (7th Ed.). New York: McGraw-Hill, p. 233.

4. Strategic Planning into the School Context

Strategic tools are the cornerstone of strategic management, since they establish objectives and energize as well as improve strategic thinking, giving unique direction to any organization³⁸. Indeed, Hansen's survey³⁹ has shown that organizations under pressure use strategic tools oriented towards competitiveness and efficiency, so as to survive in an uncertain environment.

4.1. Strategic Analysis

In this phase the principal and teachers acquire a comprehensive sense of the challenges for the coming years⁴⁰. In non-linear systems, such as the educational ones, an initially small, insignificant input might lead to significant changes⁴¹. So, the principal's note is a strategy that reflects his options compared to other alternatives. That same afternoon the principal calls the entire teacher board for a strategic meeting, in order to systematically collect information on the external environment. In Table 1, a PESTE analysis is presented, resulting from the method of brainstorming⁴². In this way all teachers realize that uncertainty and external, seemingly distant developments may prove so rapid that will ultimately affect their school. Therefore, new problems from society will constantly flow to the system⁴³.

4.2. Strategic choice

The internal environment of the school is presented in the SWOT analysis in

38 Gamage, D. T. (2009). Managing School Change: Continuous Improvement Based on a Shared Vision and a Strategic Plan. *Decentralisation, School-Based Management, and Quality*, 8, p. 106.

39 Hansen, J. R. (2011). Application of Strategic Management Tools After an NPM-Inspired Reform Strategy as Practice in Danish Schools. *Administration & Society*, 43(7), p. 798.

40 Carron, G. (2010c). *Strategic Planning. Techniques and methods*. Paris: UNESCO, p. 9; Davies, B. & Davies, B. (2009). Strategic Leadership. In: B. Davies (ed.), *The essentials of school leadership*. London: Paul Chapman Educational Publishing, p. 16.

41 Sullivan, T. J. (1999). Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 411.

42 Στυλιανίδης, Μ. (2008). Στρατηγική προοπτική διερεύνηση του μέλλοντος του κυπριακού σχολείου: Μια σύγχρονη προσέγγιση ανάπτυξης στρατηγικού σχεδιασμού και εκπαιδευτικής πολιτικής. Πρακτικά 10ου Συνεδρίου Παιδαγωγικής Εταιρείας Κύπρου (Λευκωσία 6-7 Ιουνίου 2008). Λευκωσία, p. 892; Τσιάκκιρος, Α. & Πασιαρδής, Π. (2012α). Στρατηγική ανάλυση- (I) Το εξωτερικό και ανταγωνιστικό περιβάλλον των οργανισμών. In: Π. Πασιαρδής (ed.), *Τόμος II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 110.

43 Πασιαρδής, Π. (2004). *Εκπαιδευτική Ηγεσία: από την περίοδο της ευμενούς αδιαφορίας στη σύγχρονη εποχή*. Αθήνα: Μεταίχμιο, p. 29; Πασιαρδής, Π. (2012). *Επιτυχημένοι Διευθυντές Σχολείων: Διεθνείς ερευνητικές τάσεις και η ελληνική πραγματικότητα*. Αθήνα: Ίων, p. 43; Sergiovanni T. J. & Starratt R. J. (2002). *Supervision: A Redefinition* (7th Edition). New York: McGraw-Hill, p. 48; Stylianides, M. & Pashiardis, P. (2007). The future of our schools: An example of the Delphi technique in action and the case of Cyprus. *International Journal of Educational Management*, 21(5), p. 384.

Table 2. The principal's objective is to make teachers acknowledge the existence of the crisis, the contribution of the school practices in it and the fact that the current school function is insufficient⁴⁴. The information is ranked according to its importance and forecast in terms of probability (1=very unlikely, 5=certain), timing (1=long-term, 2=medium, 3=short-term) and impact (+5= good, -5=bad).

Table 1. The PESTE analysis of the primary school

	International	National	Local
Social	Increase of poverty, pollution of the environment, unemployment	Demographic changes, changes in way of life	Anti-social behavior, alienation, stagnancy, passivity
Technological	Technological changes, rapid obsolescence of technology and knowledge	Need for frequent teacher retraining on the latest technology	Generalization of the use of computers in teaching subjects-computer literate teachers
Educational	Private education competitiveness, students' need for new skills acquisition, homeschooling	Total educational reform, centralization, private schools, teachers' evaluation system, self evaluation of schools, principals' selection process, Greek poor PISA results	New teaching methods, change of curriculum, competitive city and suburban primary schools, the director of the regional Primary Education in charge of everything
Economic	Global recession	Depression, austerity, limited budget for education	Depression, limited budget of community board
Political	Uncertainty	National elections, unsteady policymaking	Municipal elections in 2 years' time

Table 2. The SWOT Analysis of the primary school

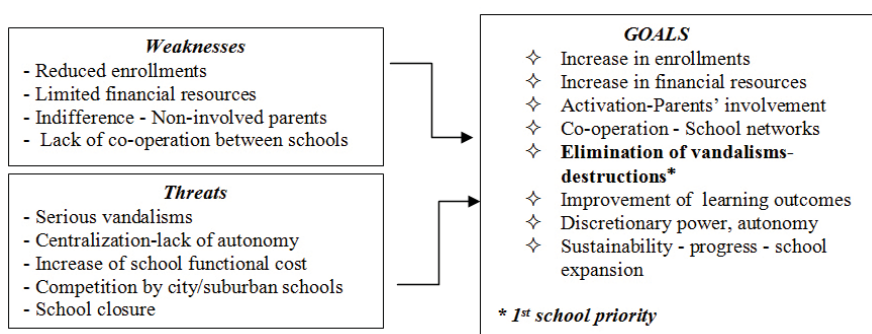
FORECASTS	PROBABILITY 1= very unlikely 5= certain	TIMING 1=long-term 2= medium 3=short-term	IMPACT +5 = good -5 = bad
Strengths			
• Skilled and highly-equipped teachers	5	3	5
• Small, provincial school	5	3	5
• Small board of permanent teachers, culture and ethos	5	3	5
• Young children with free afternoons	4	3	5
• Agreement on the achievement of vision	5	3	5
• Good infrastructure	5	3	5

44 Goldman, E. F. & Casey, A. (2010). Building a culture that encourages strategic thinking. *Journal of Leadership & Organizational Studies*, 17(2), p. 121; Wong, E. O. (2005). Operationalization of strategic change in continuing education. *International Journal of Educational Management*, 19(5), p. 393.

Weaknesses			
• Reduced enrollments	2	2	-3
• Limited financial resources	4	3	-4
• Indifference - Non-involved parents	3	3	-5
• Lack of co-operation between schools	2	3	-5
Opportunities			
• School Committee and concerned parents	5	2	5
• Children with no other outlet	4	3	5
• Parents high SES	4	2	4
• Everyday students expensive transfer to city schools	4	2	3
• Expensive police measures	5	3	3
• Small village - old graduates	5	1	5
• Future new coming students	5	1	5
Threats			
• Serious vandalisms	5	3	-5
• Centralization - lack of autonomy	5	2	-5
• - Increase of school functional cost	5	3	-5
• - Competition by city/suburban schools	5	1	-5
• - School closure	5	1	-5

As Carron⁴⁵ notes, there is no standard transition process from the phase of analysis to the one of identification and selection of objectives and priorities, because the relationship between cause and effect in education is complicated and indistinguishable. The crucial point here is to capitalize on the strengths and, on the other hand, to be careful with the weaknesses. Therefore, during the same strategy meeting, weaknesses and threats are inverted and reconsidered as goals and objectives (Table 3).

Table 3. The Weaknesses and Threats as Goals



The outcome reflects only people's collective viewpoint. Thus, obtaining empirical data via small-scale research with questionnaires for consensus,

45 Carron, G. (2010c). *Strategic Planning. Techniques and methods*. Paris: UNESCO, p.p. 17.

establishment of priorities, provision of resources, support and mobilization of the entire school community, as well as the dissemination of the mission and vision are essential⁴⁶. The use of strategic tools proves the principal's professionalism and persuades the majority of teachers to authorize him to further actions. The teachers' afternoon meeting prevents the repetition of similar vandalism at school the same evening, since intruders who visit school realize that their teachers are still inside the building.

Timing plays a crucial role in a school prosperity or disorder, so the right strategy should be applied at the right time⁴⁷. An important characteristic of leadership strategy is abandonment, not due to incorrect but due to unimportant choices, if compared to new inputs and conditions⁴⁸. Ing⁴⁹ states that the first priority of a school principal is to resolve security issues, violence and loss of control and then to proceed to other needs. Through an emergency strategy⁵⁰, the principal sets as a priority to meet the president of the parents' association, the director of the regional primary education, the head of the school board, the bishop, local media, interested citizens and local community bodies. Certain actions should provide a well lit entrance and a watch group by parents and volunteers to prevent further damage. Targeted discussions will be scheduled towards the approval of financing and employing extra cleaning staff. Despite the fact that school buildings have been upgraded significantly with investments of large amounts of funds, they remain unused for long periods of time. Therefore, the school is available for use in an organized way by the society itself with cultural, sports and creative activities during non-working hours, which will bring positive results and resource saving. Finally, the principal will commit that he will soon fully document the school capitalization according to the opinion of local people and will disseminate the results in local press.

Then, he will attempt to analyze the school culture, in order to understand the behaviors, values and beliefs and address teachers' concerns who may feel threatened by the change of leadership and routine⁵¹. The teachers will be given the freedom to focus on what they really need. Thus, he will engage the members

46 Chang, G. C. (2008). Strategic planning in Education: Some concepts and methods. In: M. Bray & N. V. Varghese (eds.) (2010). *Directions in Educational Planning: Symposium to Honour the Work of Francoise Caillods*. (Paris 3-4 July 2008). Paris: UNESCO IIEP, p. 1; Marzano, R. J., Waters, T. & McNulty, B. A. (2005). School leadership that works: From research to results. *Association for Supervision and Curriculum Development*, p. 58; Sullivan, T. J. (1999). Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 420.

47 Davies, B. & Davies, B. (2009). Strategic Leadership. In: B. Davies (ed.), *The essentials of school leadership*. London: Paul Chapman Educational Publishing, p. 20.

48 Carron, G. (2010b). *Strategic Planning. Organizational arrangements*. Paris: UNESCO, p. 13.

49 Ing, M. (2010). Using informal classroom observations to improve instruction. *Journal of Educational Administration*, 48(3), p. 352.

50 Davies, B. & Davies, B. (2009). Strategic Leadership. In: B. Davies (ed.), *The essentials of school leadership*. London: Paul Chapman Educational Publishing, p. 24.

51 Taut, S. & Brauns, D. (2003). Resistance to evaluation a psychological perspective. *Evaluation*, 9(3), p. 254.

to an information exchange, expertise and ownership of the proposed solutions⁵². He will attempt to persuade even the most reluctant teachers with empirical tested evidence (small scale surveys) that

- tough security measures reproduce violence
- lack of school networks causes vandalism and
- teachers need to invest in effective teaching⁵³.

He will focus on the importance of school sustainability and increase of enrollments. He will attempt to familiarize teachers with the market culture⁵⁴, through asking open questions (e.g. How can we attract new students? What do new students require from our school? How can we convince parents? How can we improve students' performance? How can we invest in effectiveness? How can we stimulate innovation and illustrate an impressive image?) and introducing new terms (competitive means, promotion, new opportunities, penetration in the educational market)⁵⁵. He will encourage them to think “out of the box”⁵⁶, to produce ideas for evolutionary innovations with uncertain, distant and perhaps negative results (e.g. student mentoring), indicating a transformational leadership behavior⁵⁷. Reculturing, the change of culture, will not be completed at this stage, but will continue incrementally⁵⁸.

A brief assessment of the suitability of objectives will follow, since their relevance and coherence must be ensured. They should be specific, measurable, attainable, realistic and time-based (SMART)⁵⁹. Subsequently, they should lead to short-term outputs (number of parents involved), medium-term results (number of enrollments) and finally, “long-term and aggregated effects and change at the level of the beneficiaries”⁶⁰, depicting the culture of respect and integrity for the community. The school will become a “prospector”⁶¹, choosing

52 Goldman, E. F. & Casey, A. (2010). Building a culture that encourages strategic thinking. *Journal of Leadership & Organizational Studies*, 17(2), p. 127; Sullivan, T. J. (1999), Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 419.

53 Fontaine, J., Debus-Sherrill, S., Downey, P. M. & Lowry, S. S. (2010). *Violence Prevention in Schools: A Case Study of the Thurgood Marshall Academy Public Charter High School*. Final Report. Washington, DC: U.S. Department of Education and U.S. Department of Justice, p. 12; Stylianides, M. & Pashiardis, P. (2007). The future of our schools: An example of the Delphi technique in action and the case of Cyprus. *International Journal of Educational Management*, 21(5), p. 397.

54 Cameron K. S. & Quinn R. E. (2006). *Diagnosing and Changing Organizational Culture* (Revised Edition). San Francisco: Jossey-Bass, p. 39.

55 Hansen, J. R. (2011). Application of Strategic Management Tools After an NPM-Inspired Reform Strategy as Practice in Danish Schools. *Administration & Society*, 43(7), p. 773.

56 Argyris, 1982, as cited in Perrin, B. (2002). How to-and how not to-evaluate innovation. *Evaluation*, 8(1), p. 14.

57 Πασιαρδής, Π. (2012). *Επιτυχημένοι Διευθυντές Σχολείων: Διεθνείς ερευνητικές τάσεις και η ελληνική πραγματικότητα*. Αθήνα: Ίων, p. 20.

58 Πασιαρδής, Π. (2004). *Εκπαιδευτική Ηγεσία: από την περίοδο της ενμενούς αδιαφορίας στη σύγχρονη εποχή*. Αθήνα: Μεταίχμιο, p. 162.

59 Carron, G. (2010a). *Strategic Planning. Concept and rationale*. Paris: UNESCO, p. 12.

60 Carron, G. (2010c). *Strategic Planning. Techniques and methods*. Paris: UNESCO, p. 25.

61 Goldman, E. F. & Casey, A. (2010). Building a culture that encourages strategic thinking. *Journal of*

both competition-oriented tools (e.g. public relations, promotion, effectiveness, improvement) and developmental tools (e.g. staff development, community links, financing)⁶². Finally, a strategic planning committee will be established to collect and use data as an input during application, thus validating interventions and allowing flexibility and adaptation⁶³. From then onwards, the plan is put in writing, responsibilities and roles are allocated, the duration and inputs are estimated and just after its approval, the plan is applied⁶⁴ (Table 4, Appendix).

Table 4. Stakeholders involved in the development of the strategic planning of the Primary School

External stakeholders	Internal stakeholders
1. Community Council: maintenance, management of school budget, ensuring of security conditions, provision of equipment, infrastructure, employment of supplementary personnel	1. Principal: supervisor/facilitator/motivator/authorized/representative/official spokesman
2. Parents' association: donations, volunteering, expertise	2. Assistant principal: supervisor-practice evaluator/coordinator of after-school activities
3. Municipality: financial support, organization of activities	3. Teacher Board: application of activities/brainstorming/in-service training/peer classroom observation
4. Local Clergy: sermons/moralizing speeches, donations	4. Strategic planning committee: collection-data analysis/functional activities
5. Local associations, business: grants, site-visits, local press	5. Cleaning staff: cleaning and care of all school premises
6. Other schools	6. School janitor: entrance checking/night watch/general technical maintenance
7. Lobbying (2 local Members of Parliament, unions)	
8. Director of Primary Education	

Thus, through transparent dialogue and sincere communication teachers will move on to the next stage. The most important output of this phase will be the mental map of strategic planning, the unwritten contract of loyalty and responsibility of all and the recognition of the new principal as the defender and representative of the school to all shareholders. On this map, presented in Table 5, the required time frame of each objective (long-term, medium, short-term), as well as the time needed (medium-low) have been estimated. Due to the economic

Leadership & Organizational Studies, 17(2), p. 123.

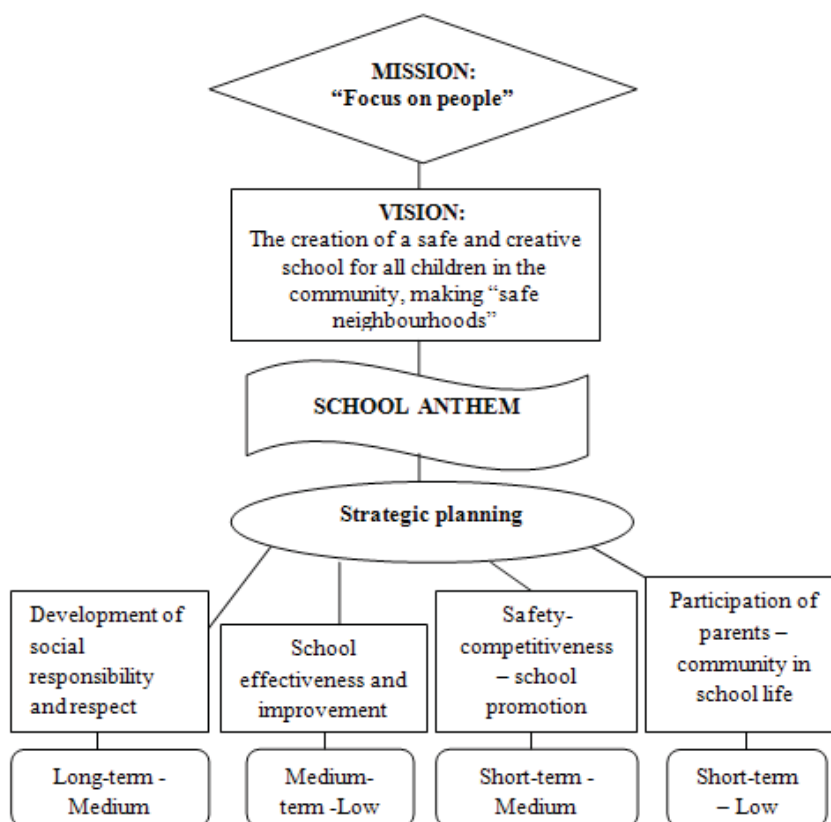
62 Τσιάκκρος, Α. & Πασιαρδής, Π. (2012β). Στρατηγική ανάλυση- (II) Το εσωτερικό περιβάλλον των οργανισμών. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 140.

63 Goldman, E. F. & Casey, A. (2010). Building a culture that encourages strategic thinking. *Journal of Leadership & Organizational Studies*, 17(2), p. 125.

64 Gamage, D. T. (2009). Managing School Change: Continuous Improvement Based on a Shared Vision and a Strategic Plan. *Decentralisation, School-Based Management, and Quality*, 8, p. 119.

crisis and limited resources, high cost objectives are ignored or rejected by the stakeholders as unattainable.

Table 5. The Mental Map of the strategic planning of the Primary School



4.3. Strategic implementation

The final draft (Appendix) will be implemented immediately to maintain the momentum of the active involvement of shareholders⁶⁵. Since strategy is an elusive, non-tangible concept⁶⁶, some practices will be experimentally applied (e.g. complaint box, peer classroom observation). Although stakeholders and administrative structures may not be willing or sufficient enough to change, they

65 Watson-Thompson, J., Fawcett, S. B. & Schultz, J. A. (2008). Differential effects of *Journal of Community Psychology*, 42(1-2), p. 36.

66 Gamage, D. T. (ed.). (2006). *Professional development for leaders and managers of self-governing schools*. Dordrecht, Springer, p. 137.

should be encouraged and strengthened⁶⁷, through enabling approaches and loose couplings (e.g. strategic meetings held separately from functional, participatory decision-making, teacher leadership /mentorship models)⁶⁸. The school is starting with small, successive successes, which will accumulate over time and will be gradually assimilated, otherwise the risk of innovation fatigue exists⁶⁹.

According to Davies and Ellison⁷⁰, strategic planning must be revised on the basis of unpredictable demands. Besides, a principal is accountable to community members, who provide resources, pay taxes and demand good service and quality⁷¹. Thus, monitoring and evaluation are critical processes, triggering remedial options, with transparent, reliable, mixed data collection systems. Appropriate questions (e.g. To what degree did the stakeholders co-operate at the stage of planning, implementation and evaluation? Which practices proved successful? Which ones did not have the expected results? Were the results reported to the shareholders? Have the lessons been learnt?)⁷², will validate if strategies were effective. This is a crucial point in the strategic planning cycle, since it is important to theoretically validate and empirically test every intervention in education⁷³.

5. Implementation in the Primary school – The Road Ahead

This strategic planning has been implemented in a provincial primary school from the school year 2011-12 and forth. Now, four years later, all the objectives presented in Table 3 have been achieved; incidents of vandalism were totally eliminated, student enrollments have been increased, teachers are activated and parents are highly involved in school life. Networks, co-operation and school

67 Bell, L. (2002). Strategic planning and school management: full of sound and fury, signifying nothing? *Journal of Educational Administration*, 40(5), p. 421; Πασιαρδής, Π. (2012). *Επιτυχημένοι Διευθυντές Σχολείων: Διεθνείς ερευνητικές τάσεις και η ελληνική πραγματικότητα*. Αθήνα: Ίων, p. 174.

68 De Jong, J. P. & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of innovation management*, 10(1), p. 51; Τσιάκκρος, Α. & Πασιαρδής, Π. (2012γ). Στρατηγική ανάλυση- (II) Το εσωτερικό περιβάλλον των οργανισμών. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 149.

69 Bell, L. (2002). Strategic planning and school management: full of sound and fury, signifying nothing? *Journal of Educational Administration*, 40(5), p. 421; Sullivan, T. J. (1999). Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 415.

70 Davies, B. & Ellison, L. (1998). Futures and strategic perspectives in school planning. *International Journal of Educational Management*, 12(3), p. 136.

71 Chang, G. C. (2008). Strategic planning in Education: Some concepts and methods. In: M. Bray & N. V. Varghese (eds.) (2010), *Directions in Educational Planning: Symposium to Honour the Work of Francoise Caillods*. (Paris 3-4 July 2008). Paris: UNESCO IIEP, p. 7; Τσιάκκρος, Α. (2012γ). Ζητήματα ηθικής, λογοδοσίας και υπευθυνότητας. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 253.

72 Perrin, B. (2002). How to—and how not to—evaluate innovation. *Evaluation*, 8(1), p. 24.

73 Κυριακίδης, Α. & Δημητρίου, Δ. (2012). Η Έρευνα για τη Βελτίωση της Σχολικής Αποτελεσματικότητας. In: Π. Πασιαρδής (ed.), *Vol I: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 416.

twinning programs are being promoted, relationships between stakeholders have been improved, class management problems were resolved and students' learning outcomes were enhanced. Strategic planning has led the school to sustainability, progress and future expansion.

The most critical aspect of success is considered the principal. The school was promoted to change, since this leader inspired all stakeholders towards his vision, the direction that he intended in the first place, verifying the true definition of leadership⁷⁴. Since, any system is more effective if there is a high level of alignment with the needs of individuals, the expectations of teams and the objectives of the institution⁷⁵, the principal distinguished opportunities and associated resistance with change, listened carefully and capitalized information that led to accountability and improvement. He became the official defender and spokesman to all stakeholders, visible at all times, making teachers focus in times of uncertainty and optimizing their expertise and capabilities in small steps to create long lasting, overall second order change⁷⁶. Since freedom is very important, he allowed teachers to determine the priorities, avoiding undermining. Change became their personal affair, leading them to co-responsibility and co-evolution.

The use of a leadership mix helped the restructure of hindering processes that did not contribute either to school function, nor students' learning. He solved security issues first, promoting innovational educational programs and diminishing social exclusion and marginalization. Then, he focused on teaching. He encouraged teachers to talk openly about the nature of good teaching, helped them develop their educational agenda and set an example, inviting teachers to watch his lessons and comparing his practices with theirs. He also verified effective teaching and good learning outcomes, by presenting students' and teachers' work in public, motivating staff development, through building skills and teams. These skills had proved useful during the implementation of the educational work evaluation at schools.

On the other hand, he was a handler in the school's political arena, elaborating on the internal culture and formal and informal channels. He developed the full power of followers, taking advantage of the available crucial mass. Open to suggestions, he knew that he had to support his staff with resources, internal and not external incentives, since people, whose ideas that are not implemented, tend to get discouraged⁷⁷. He didn't endure mediocrity, but he made site visits to

74 Πασιαρδής, Π. (2004). *Εκπαιδευτική Ηγεσία: από την περίοδο της ευμενούς αδιαφορίας στη σύγχρονη εποχή*. Αθήνα: Μεταίχμιο, p. 209; Sergiovanni T. J. & Starratt R. J. (2002). *Supervision: A Redefinition* (7th Ed.). New York: McGraw-Hill, p. 334.

75 Πασιαρδής, Π. (2004). *Εκπαιδευτική Ηγεσία: από την περίοδο της ευμενούς αδιαφορίας στη σύγχρονη εποχή*. Αθήνα: Μεταίχμιο, p. 36.

76 Fullan, M. (2002). The Change leader. *Educational Leadership*, 59(8), p. 18.

77 De Jong, J. P. & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour.

other schools and strong links, showing that his primary goal is to serve students in an excellent school. He became an expert, using theoretical models to support strategic moves and convince teachers scientifically. This is an important form of power of a leader that makes staff respect and trust⁷⁸. He was to be able to consider things in an alternative prospective in the uniqueness of the school context and did not apply ready plans and quick solutions.

As Pashiardis et al.⁷⁹ emphasize “If you decide alone, you are alone”. The principal knew that successful planning should be a collective and not an individual responsibility. Except for that, he involved external stakeholders, thus leading change in the community population level as well; parents enrolled children in the nearest school with significant time and money saving; there was an increase in learning outcomes and university entrance exams and improvement of active involvement and volunteering, through online-surveys and community programs. A “healthy neighborhood” was created in the local community by the locals themselves, who were able to further upgrade the quality of their life. This long-term effect proved beyond anything else that strategic planning can be a catalyst of acknowledgement and facilitation of change of the community itself.

6. Conclusions

In conclusion, strategic planning in education can open new possibilities and bring significant benefits, as long as it includes documented, verifiable, measurable goals and objectives, based on a long-term vision, which will satisfy real needs, along with monitoring and evaluation⁸⁰. The process is a learning experience, leading to the co-evolution of people⁸¹. Due to the fact that strategic thinking is more complicated and time consuming than traditional, functional planning⁸², the culture of error avoidance in public schools and bureaucracy hinders its adoption⁸³. However, the emphasis on promoting learning through a pedagogic style, combined with the entrepreneurial style of leadership⁸⁴ and the ability of

European Journal of innovation management, 10(1), p. 53.

78 Busher, H. & Barker, B. (2003). The Crux of Leadership Shaping School Culture by Contesting the Policy Contexts and Practices of Teaching and Learning. *Educational Management Administration & Leadership*, 31(1), p. 62.

79 Pashiardis, P., Savvides V., Lytra E. & Angelidou K. (2011). Successful School Leadership in Rural Contexts: The Case of Cyprus. *Educational Management Administration & Leadership* 39(5), p. 541.

80 Τσιάκκρος, Α. (2012α). Η Στρατηγική πρόγνωση του μέλλοντος/Εισαγωγή στην έννοια της Στρατηγικής. In: Π. Πασιαρδής (ed.), *Vol II: Διαχείριση αλλαγής, σχολική αποτελεσματικότητα και βελτίωση*. Λευκωσία: Ανοικτό Πανεπιστήμιο Κύπρου, p. 46.

81 Carron, G. (2010b). *Strategic Planning. Organizational arrangements*. Paris: UNESCO, p. 8; Sullivan, T. J. (1999). Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 417.

82 Carron, G. (2010α). *Strategic Planning. Concept and rationale*. Paris: UNESCO, p. 19.

83 Perrin, B. (2002). How to—and how not to—evaluate innovation. *Evaluation*, 8(1), p. 25.

84 Pashiardis, P. & Savvides, V. (2011). The Interplay Between Instructional and Entrepreneurial Leadership

leaders to envision major and risky strategy breakthroughs, in order to give a sense of an overall holistic agenda, to be brave, to know their competitors, and to hold a situational awareness, so as “to “read” their organization”⁸⁵, arms them to lead schools successfully towards the creation and development of future personalities with integrity and morals, thus fulfilling the core objective of education⁸⁶.

Since the particular needs of schools cannot be satisfied through a highly concentrated educational system⁸⁷, the formulation of a local educational policy with flexibility, discretionary power and a combination of multidimensional practices, both theoretically based and empirically tested can lead to effectiveness and efficiency. But above all, proactive leaders with personal appeal, charismatic authority, common value orientation and commitment can make the difference⁸⁸. If schools are the miniature of society⁸⁹, then Greek public schools need now more than ever such strategic leaders to be the change agents that will “rock the boat”⁹⁰, not only for the improvement of the entire educational system, but also the society itself.

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Styles in Cyprus Rural Primary Schools. *Leadership and Policy in Schools*, 10(4), p. 425.

85 Sullivan, T. J. (1999). p.p. 421. Leading people in a chaotic world. *Journal of Educational Administration*, 37(5), p. 421.

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88 Hoy, W. & Miskel, C. (2013). *Educational Administration: theory, research and practice*. (9th Edition). New York: McGraw-Hill, Inc, p. 512.

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Appendix. The Strategic Planning of the Primary School - «Focus on People» - November 2011

Strategic Dimensions	School Objectives	Target Goals	Indicators
Competitive ness - school promotion	<ul style="list-style-type: none"> • Elimination of vandalism and destruction incidents • Co-operation / Networks with schools 	<ul style="list-style-type: none"> • By June 2012 complete elimination of vandalism cases • By June 2013 show a 45% increase in prevention delinquency • By June 2013 make common bonds with at least 2 schools 	<ul style="list-style-type: none"> • Housing of the Parent Association inside the school • Creation of the School Anthem • Display of common code of ethics and conduct on school walls • Obligatory school cleaning by students • Creation of a student graffiti competition for the external walls • Cultural activities for everybody in the afternoons/evenings • Common sports activities/contests with other schools • Public presentation of students' work in the press/on web • Open football ground and gym for cultural, sports and creativity events • Open workshops by teachers on theatre, music, dance • Loan library - use of computer rooms • Co-operation with Municipality/ Church for the implementation of youth programs

<p>Parent-Community involvement in school life</p>	<ul style="list-style-type: none"> • Parental active involvement • Increase in financial resources 	<ul style="list-style-type: none"> • By June 2013 show a 50% increase in the number of active parents • By May 2014 show a 20% increase in the school's financial stock 	<ul style="list-style-type: none"> • Creation of Parents' School • Publication of information leaflet for parents/community members • Psychologist for parents' motivation on the role on their children's behaviour • Theatre performances involving parents • Praise-presentation of good teaching practices and projects • Complaint box outside the principal's office • Parent informed through e-mails/creation of school blog/site • Programs against children's delinquency/for raise of self-esteem
<p>School effectiveness and improvement</p>	<ul style="list-style-type: none"> • Improvement of students' learning outcomes 	<ul style="list-style-type: none"> • By June 2014 show a 25% increase in the number of teachers with volunteer training • By June 2015 show a 30% decrease in the number of students with low grades • By June 2015 all teachers should observe/be observed at least once 	<ul style="list-style-type: none"> • Strategic meetings separate from operational • Self-evaluation of school unit/school work • Facilitation of teachers' training programs • General re-arranging, desk arrangement, clean classrooms • Total absence of students who repeat classes • Research on students' learning outcomes and proposals for enhancing them • Implementation of teachers'/students' mentorship • Weekly homework progress chart by teachers • Generalization of computer teaching in all subjects • Frequent assessment of student writing, reading and math skills • Student Progress measured and data posted on individual charts • Establishment of annual graduate celebration

Development of social responsibility and respect	<ul style="list-style-type: none"> • Enrollment increase • Sustainability-progress school expansion 	<ul style="list-style-type: none"> • By June 2015 show a 40% increase in the number of new enrollmnets • By June 2015 show a 60% increase in extra-curricular programs and activities • By June 2015 the school has to enrol all c o m m u n i t y children 	<ul style="list-style-type: none"> • Evaluation of intervening programs for creating ethos and non-violence • Teaching in favor of human rights, active citizenship, quality of life, education for peace • Students' volunteering in the community • Adoption of monuments-streets-parks • Consolidation of health, good life and good diet values • Sumer preparation interventions for incoming students-transition for graduates to high-school • Creation of ecology, journalism, recycle, theatre, beautification school teams • Support of elderly and unemployed/poor students' families • Kiosks and space development in the school yard for games/resting • Housing of a municipal continuous adult training centre inside the school
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Author's CV

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Tsaliki Evanthia

Diversity in Greece: the Necessity of Implementing Intercultural Education

Abstract

The present article explains how Greece has been exposed to plurality and diversity in the past from ancient times to date. It then goes on to explain the existing diversity of the pupil population in Greece nowadays since it consists of a number of different cultural groups. These cultural groups of pupils are divided into three categories: foreign pupils who mainly come from countries which are adjacent to northern Greece; repatriate pupils who come from the ex-Soviet Union, and the Muslim group. At the end, the necessity of the implementation of intercultural education according to research undertaken is discussed in more details.

Περίληψη

Στο παρόν άρθρο παρουσιάζεται πώς ο πλουραλισμός και η διαφορετικότητα αποτελούσαν έννοιες υπαρκτές στην Ελλάδα από τα αρχαία χρόνια. Στη συνέχεια αναλύεται η διαφορετικότητα του μαθητικού πληθυσμού τη σημερινή εποχή, αφού αποτελείται από διαφορετικές πολιτισμικές ομάδες, οι οποίες χωρίζονται

σε τρεις κατηγορίες: αλλοδαποί μαθητές που προέρχονται κυρίως από χώρες που συνορεύουν με τη βόρεια Ελλάδα, από τους παλινοστούντες μαθητές που προέρχονται από την πρώην Σοβιετική Ένωση και τους Μουσουλμάνους μαθητές. Στο τέλος, η αναγκαιότητα της εφαρμογής της διαπολιτισμικής εκπαίδευσης συζητείται με περισσότερες λεπτομέρειες.

1. Introduction

It would be disingenuous to claim that the region of today's Greece has never been exposed to plurality and diversity in the past. In ancient years multiculturalism was a core concept in the philosophical ideas of Socrates and Diogenes¹. Moreover, the political separation of the country and region in the classical city-states (poli-kratos)², in which different Greek ethnic groups lived that spoke one among the major Greek dialects³ spoken at that time in the region, denotes that there has been a kind of diversity in Greece ever since⁴. Later on, the conquest of many parts of the east by Alexander the Great, which became parts of his empire, had as a consequence a cultural exchange between the Greek and the eastern culture⁵.

In subsequent years plurality was sustained in the region. Greece belongs to the Balkans, which is a region that has been controlled by empires, such as the Roman, the Byzantine⁶, the Ottoman Empire, Frankish occupation and the Soviet Union. Hence, there had been plurality in the region due to the ethnic and religious diversity of long existing groups⁷. More specifically, when the Greek land was conquered by the Romans, they influenced Greek culture and they were influenced by it, as well. Then, in the Byzantine era many diverse ethnic groups lived in the empire, which implies the diversity existing within the empire. Later on, cultural exchange and influence is evident in the Greek folklore, vernacular

1 Mulalic, M. 2009. Multiculturalism and EU Enlargement: the Case of Turkey and Bosnia-Herzegovina. In C. Marcinkowski, ed., *The Islamic World and the West: Managing Religious and Cultural Identities*. London: Transaction Publishers p.111.

2 Broome, B. J. 1996. *Exploring the Greek Mosaic: a Guide to Intercultural Communication in Greece*. Maine/USA: Intercultural Press p.17.

3 Antonaccio, C. 2003. Hybridity and the Cultures within Greek Culture. In C. Dougherty & L. Kurke, eds., *The Cultures within Ancient Greek Culture* p.59. Cambridge: Cambridge University Press.

4 However, Broome (1996) says that during ancient Greek time the city-states were important political entities united by a common language and culture p.23.

5 According to Mulalic (2009) p.111 Alexandria in Egypt was one of the cities founded by Alexander the Great and belonged to his empire. This city constitutes an example of cultural diversity. It was a cosmopolitan city since it attracted a lot of different people regardless of their culture, ethnicity or religion.

6 Ackermann, A. (2012) Cultural Hybridity: Between Metaphor and Empiricism. In P. Wolfgang, ed., *Conceptualizing Cultural Hybridization; a Transdisciplinary Approach* Berlin: Springer p.5.

7 Broome, B. J. 1996. *Exploring the Greek Mosaic: a Guide to Intercultural Communication in Greece*. Maine/USA: Intercultural Press p.17.

Unutulmaz, O. 2008. The 'New' Multiculturalism in Turkey: Problems of Transformation into an Immigration Country and the Governance Response. Paper presented at the 10th Annual Kokkalis Graduate Student Workshop on the 'Multiculturalism in the Balkans' Panel, Harvard University, 7–8 September p.2.

speech, music, cuisine, dress, attitudes – even in some social customs due to the four hundred years of Ottoman rule over Greek land

2. The Composition of the Pupil Population in Greece Nowadays

I will now turn to presenting the diversity of the population in Greece and in turn the diverse composition of the pupil population in Greece.

2.1 Foreigners in Greece

Immigration to Greece started in 1980s with immigrants coming mainly from Africa and Asia, but it was limited in scope. In the beginning of the 1990s, Greece started receiving large inflows of immigrants from Central and Eastern the Greek state. In 1989, 62,000 foreign workers coming from member-states of the European Union, such as Bulgaria or from other countries of Europe, such as Albania and Romania, lived in Greece because they had better working chances. There are also some other smaller communities of immigrants living in Greece, such as Indians and Pakistanis, Egyptians, Filipinos, Iraqis, Armenians, Kurds, Japanese and Vietnamese⁸. Among this population the large number of illegal immigrants, as in other southern European countries, has to be taken into account. In this part of the population around 3,000 refugees have to be added who have been recognised by the Greek government and have the right of legal residency in Greece. The majority of these refugees in Greece mainly came from Turkey, Romania, Albania, Iran, Iraq, Poland, Syria and Palestine. During the school year 2002–3 almost 56% of the pupil population in Greek primary schools and 23% of pupils in Greek high schools consisted of foreigners. Later on, during the school year 2007–8 foreign and repatriate pupils in Greek primary schools reduced to 12% and in Greek high schools to 7.5%. Greece is a country of destination and transit for different categories of migrants. More recently, Greece constitutes the major gateway of undocumented migrants and asylum seekers from Africa and Asia. In 2011 the European Court of Justice found that 90% of all irregular entry into Europe was through the Greek borders. According to Eurostat statistics there are approximately 956,000 foreign nationals residing in Greece: 153,000 from the EU and the remaining 803,000 are third country nationals.

2.2 Roma

It is believed that the Roma's ancestral homeland is India⁹. It constitutes a group

8 Markou, G. 1996. *Multiculturalism in Greek Society, the Process of Internationalisation and the Necessity of Intercultural Education*. Athens: National Ministry of Education and Religious Affairs and General Secretariat of Laic Training p.20.

9 Posavek, K. and Hrvatic, N. 2000. Intercultural Education and Roma in Croatia, *Intercultural Education*, 11(1): p.93.

with heterogeneity, as it has a number of subgroups, which are differentiated according to their origin, the geographical region, the religious beliefs and the language of the host country that they speak¹⁰. Therefore, the Romani language has 17 main dialects, each of which has been influenced by the language of the country in which Roma live. However, Roma tend to be bilingual as they usually speak their own dialect and the language of their host country¹¹.

There are specific characteristics in Roma culture which deserve to be mentioned because they help us understand Roma's present situation in Greece and in other countries, as well. First of all, Roma education is a community-based education and focuses on practical and experiential learning. Traditions are transmitted orally from the eldest of the family to the youngest. They live in extended families, in which their life and sentimental relationships are very important for them¹².

It is estimated that around 230,000 Roma live in Greece nowadays. The first groups could be seen in southern Greece; that is in Peloponnisos and Crete in 1350 and 1323 respectively as well as in Cyprus¹³. In Greece Roma are divided into two groups; those who live permanently in a place and take temporary seasonal trips elsewhere and nomads¹⁴.

According to recent research Roma constitutes a cultural group in Greece which has experienced social exclusion and marginalisation, which relate to the educational process¹⁵. Roma children usually break off attendance because they have to look after their younger brothers and sisters when parents leave the house to earn money or due to poor study conditions, but in addition there are a number of other reasons that lead to low levels of school attendance. The national curriculum and school books do not take account their cultural traditions¹⁶; nothing is written about Roma history and their influence on world culture, music or literature. There are cases that Roma pupils have insufficient

Etxeberria, F. 2002. Education and Roma Children in the Basque Region of Spain, *Intercultural Education*, 13(3): p.291.

10 Terzopoulou, M. and Georgiou, G. 1996 *Gypsies in Greece. History – Culture*. Athens: National Ministry of Education and Religious Affairs – General Secretariat of Laic Training p.28.

11 Kyuchukov, H. 2000. Transformative Education for Roma (Gypsy) children: an Insider's View, *Intercultural Education*, 11(3): p.273.

12 Ksinogala, N. 2000. *Gypsies' Cultural Capital as a Framework of Interpretation for their Participation in Education*. The Case of the 39th Primary School in Heraklion, Crete. MA Thesis, University of Crete p.48.

13 According to Terzopoulou and Georgiou (1996) p.8 After Turkish domination Roma resided in the southern Balkans and as Turkish domination continued they resided to central and western Europe, as well.

14 Kostoula-Makraki, N. and Makrakis, V. 2006. *Interculturalism and Education for a Sustainable Future*. Crete: Digital Centre of Educational Media of University of Crete p.256.

15 Liegeois, J. 1999. School Provision for Roma Children: a European Perspective, *European Journal of Intercultural Studies*, 10(2): p.147.

16 Michalopoulou-Veikou 1997. Different Identities and Common Programme; the Educational Management of Cultural Difference. In G. Markou, ed., *Intercultural Education – Teachers' Training: an Alternative Suggestion* p.197. Athens: Center of Intercultural Education, University of Athens.

knowledge of the Greek language, as well. However, they are expected to assimilate the cultural characteristics of the majority group in school education. At this point it is worth mentioning that the school books which pupils use in schools in Greece are in fact pupils' individual work books which are provided by the National Ministry of Education for each class and for each level of education (primary school and high school). They are written in Greek and that makes it difficult for children who are not yet fluent in Greek to work independently, as mentioned above. Additionally, these school books are the same for all pupils across the country, thus no freedom is provided to teachers to select for their pupils books according to their educational needs, their learning level, their experiences and their interests. As a result, school may not be attractive enough for certain groups of pupils because it does not meet their needs and there is no reference made of their culture.

Furthermore, there is insufficient parental interest in the success of Roma children at school and insufficient preparation of Roma children from the parents before entering school which results in lack of cooperation between the school and the family, as well as a lack of Roma school teachers, since teachers belonging to the majority do not have sufficient knowledge to teach Roma children¹⁷. It is emphasized that Roma education in Greece cannot become effective, if the present climate of political indecision does not change.

2.3 Repatriates

Around 500,000 Greeks returned to Greece due to political, economic, social and national reasons. More specifically, in January 1998 the right to free movement and living in the member states of the European Union was established. As a consequence, a number of Greek workers from West Europe, especially Germany, as well as from the USA, Canada and Australia moved back to Greece. Greek-Cypriots due to Turkish invasions in the north part of the island Cyprus¹⁸, Greeks living in Turkey due to catastrophes made by the Turks, Greeks from Egypt, central and south Africa and a lot of Greeks living in the north of Epirus due to the sudden collapse of the old Albanian regime decided to move back to Greece.

Greeks from Pontos or else Pontic Greeks living in the ex-Soviet Union are included in this category of repatriates and they decided to return to Greece for a number of reasons¹⁹. First of all, for many years their dream was to live where they

17 Moreover, according to Kiddle (2000) p.227 and Jordan (2001) p. 130 the European Commission has funded projects for the education of Roma pupils which have included mobile preschool provision, trained staff to visit home and try to involve parents' in their children's learning, special teams of peripatetic advisory school teachers as well as open and distance learning approaches.

18 According to Markou (1996) around 80,000 Greek-Cypriots lived in Greece and nowadays about half of them have returned to Cyprus p.17.

19 According to Kokkinos (1991) Macedonia, a large geographical area in northern Greece, absorbed 68%

considered their national homeland, that is, Greece. Secondly, they hoped for a better material future or for a better life due to the economic crisis of the Soviet reform. Further to that, in the Republic of the Soviet Union, where they were concentrated, they were harassed or persecuted by the emerging Muslim nationalism²⁰.

The identity of Pontic Greeks seems to be complex and it can be better understood if their course in history is presented. Pontics are Greeks from mainland Greece who emigrated thousands of years ago to the Ionian Coast and then to the Black Sea (> Euxinos Pontos), after which they are named²¹. They arrived in the south-eastern shores of the Black Sea between the eighth and the sixth century BC and they contributed to the Hellenisation of western and central Asia Minor. After the end of the Crimean War the Russians tried to strengthen their position by attracting Orthodox Christian settlers, among whom were Pontic Greeks from the Ottoman Empire and the Persian Empire to Southern Russia and particularly the Caucasus, where they developed flourishing communities²². At the same time a large number of them preferred to proceed as refugees to Greece (from 1917 to 1921).

There are three historical periods in the life of Pontic Greeks in the Soviet Union, which deserve to be mentioned briefly as they sign-post their return in Greece. In the first period, from 1917 to 1937, the Leninist ideology permitted ethnic groups living in the Soviet Union to use their mother tongue and follow their own way of life. In the second period, which began in 1937 when Stalin fully implemented the collectivisation plan, a large part of the Pontic population was persecuted and exiled. Stalin, being Georgian himself, disliked the Pontics and by his order the Pontic dialect stopped being taught in the Pontic Greek schools. Worse than that, hundreds of thousands of Pontics were displaced to Kazakhstan, Uzbekistan and Turkmenistan. This caused great waves of migration to all parts of Greece in 1937. From 1960 to 1970 few families came to Greece as exit from the Soviet Union was virtually forbidden. Finally, the third period started in 1985, when perestroika was established. Since then a lot of Pontic families decided to return to Greece and immigration continues until the present day²³.

As the presentation of the history of Pontic Greeks reveals, they have various different geographical origins. Therefore, they speak various dialects. Some of them blend an ancient Greek dialect with Russian and Turkish. A large

of repatriates p.313.

20 Kokkinos, D. 1991. The Greek State's Overview of the Pontian Issue, *Journal of Refugee Studies*, 4 (4): p.313.
Palaiologou, N. 2000. *School Adaptation of Pupils with 'Bi-Cultural' Characteristics. The Case of Repatriate Pupils from the Ex-Soviet Union in the Greek Primary School*. PhD Thesis, University of Athens p.117.

21 Kokkinos, D. 1991. The Greek State's Overview of the Pontian Issue, *Journal of Refugee Studies*, 4 (4): p.313.

22 Xanthopoulou-Kyriakou, K. 1991. The Repatriation of Pontic Greeks, *Journal of Refugee Studies*, 4 (4): p.312.

23 Palaiologou, N. 2000. *School Adaptation of Pupils with 'Bi-Cultural' Characteristics. The Case of Repatriate Pupils from the Ex-Soviet Union in the Greek Primary School*. PhD Thesis, University of Athens p.125.

Vergeti, M. 1991. Pontic Greeks from Asia Minor and the Soviet Union: Problems of Integration in Modern Greece, *Journal of Refugee Studies*, 4 (4): p.387.

number of them have completely lost their knowledge of the Pontic dialect over generations²⁴. Hatzidakis (1892), the linguist, as cited in Mackridge (1991) demonstrated that only a couple of Ionic words could be found in the Pontic dialect. However, many Pontic Greeks and scholars believe that the Pontic dialect is the development of the Ionic dialect.

The Greek state names Pontic Greeks officially ‘repatriates’ according to advantage of being granted funds from the European Union if it had named them ‘refugees’. However, it preferred to characterise them ‘repatriates’ as an indication of good will to the ex-Soviet Union which had made serious efforts to improve the living and educational conditions of Pontic Greeks during the period of perestroika. However, this term is problematic, as it can be attributed only to the first generation of Pontic Greeks from Pontos, who had moved to the Soviet Union because of their persecution from Turks during the period 1914–24. The next generations of Pontic Greeks were not born in Greece. Therefore, they belong to the Greek diaspora. In this sense, they are not repatriates but immigrants.

The aforementioned information is useful for teachers in order to be able to understand that repatriate pupils have different biographies, thus different cultural backgrounds in relation to their geographical origin as well as the linguistic and cultural identity of their families, which has to be taken into account in their teaching. Besides, the very same term ‘Pontic Greek’ (> Ellinopontios) implies a combined identity²⁵. Repatriate pupils face problems in relation to their adjustment in Greek school, as they do not know the Greek language. Therefore, a large number of them attend reception classes or intensive classes. Not only repatriate pupils but also their families experience economic exclusion. They only know the Pontic dialect and this constitutes a factor which inhibits them from finding a job. They also experience social exclusion, as the Greek society does not accept them²⁶.

At this point it should be added that repatriates from Albania are included in this category. These are people of Greek origin who used to live in Epirus, the part of Greece adjacent to Albania, which was later assigned to Albania according to international agreements (Protocol of Florence 17/2/1913)²⁷. Therefore, pupils in Greek schools coming from Albania and having an Albanian origin are characterised ‘foreigners’, whereas those pupils coming from Albania and having a Greek origin are characterised ‘repatriates

24 Mackridge, P. 1991. The Pontic Dialect: a Corrupt Version of Ancient Greek?, *Journal of Refugee Studies*, 4 (4): p.336.

25 Kotsionis, P. 1995. The Dimensions of Intercultural Education in Greek Primary Schools, *Contemporary School*, 25–30 (27): p.124.

26 Vergeti, M. 1991. Pontic Greeks from Asia Minor and the Soviet Union: Problems of Integration in Modern Greece, *Journal of Refugee Studies*, 4 (4):p. 390.

27 Kontogianni, D. 2002. *Bicultural-Bilingual Education in Greece: the Case of “Greek Repatriates’ Schools”*. PhD Thesis, University of Crete p.214.

from Albania', although, as in the case of Pontic Greeks, this term may be problematic because it refers to the first generation of Greeks who lived in the Greek territory later assigned to Albania.

2.4 The Population in West Thrace

Thrace is a large geographical region in northern Greece. It borders southern Bulgaria and the European part of Turkey. The population in Thrace is distinctively multicultural. It consists of the native group and the Muslim group. The Muslim group includes three different categories of people: those with a Turkish origin, those with a Pomak origin (> Pomaki) and Roma. So, the existence of the minority group in Thrace is defined institutionally by the criterion of religion²⁸.

The Treaty of Lausanne was signed in 1923 between Greece and Turkey. It foresaw the exchange of population with the exception of Turks living in Thrace (87,000) and the Greeks living in Constantinople (Istanbul) and the islands Imvros and Tenedos (270,000). As a consequence, there is a Turkish-speaking population living in Thrace who became Greek citizens²⁹. However, the Turkish government is responsible for their education³⁰. The situation becomes far more complicated since among the Turkish group there are small groups of Roma communities as well as Pomak communities.

Pomaks have the oldest history in Thrace. They are natives residing in the villages just by the Bulgarian border, they speak a Slavic dialect related to Bulgarian and until the 17th century they were Christian. Since then, their Islamisation started. Some of them were crypto Christian, but then they were in danger from the Muslims. Although their language is not Turkish, their education is viewed by the Turkish minority and the Turkish government as being decided by the Treaty of Lausanne, as a result of their Muslim religion. By including Pomaks in a common

28 Spyridakis, J. 2002. *The Correspondence Between the Intercultural Pedagogical Theory and the Educational Practice in the Intercultural Schools founded by the law 2413/1996. The Case of the Intercultural Primary School in Sapas Rodopi*. MA Thesis, University of Crete p.49.

Demetriou, O. 2004. Prioritizing 'Ethnicities': the Uncertainty of Pomak-ness in the Urban Greek Rhodoppe, *Ethnic and Racial Studies*, 27 (1): p.97.

29 Kelepouri, M. 2003. Bilingual Pupils in the Classroom: the Myth of the Equity of Chances. In E. Tressou and S. Mitakidou (eds) *Proceedings of the Conference of the Department of Primary Education of the University of Thessaloniki, Greece for the Education of Language Minorities: Teachers talk to Teachers about their Experiences*. p. 125. Thessaloniki: Paratiritis.

Sgatzos, A. N. 2005. *Learning the Borders: the Construction of Minority in a Minority School in Komotini*. PhD Thesis, University of the Aegean p.52.

30 Broome, B. J. 1996. *Exploring the Greek Mosaic: a Guide to Intercultural Communication in Greece*. Maine/USA: Intercultural Press p.18.

Troubeta, S. 2001. *Constructing Identities for the Muslims of Thrace. The example of Pomaks and of Roma*. Athens: Kritiki Publications p.177.

Demetriou, O. 2004. Prioritizing 'Ethnicities': the Uncertainty of Pomak-ness in the Urban Greek Rhodoppe, *Ethnic and Racial Studies*, 27 (1): p.108.

minority educational system with Turkish as the official language, and by isolating and marginalising them, the Greek state encouraged the various groups of the Muslim minority, that is, Pomaks and Roma, to develop a Turkish identity and accept the Muslim religion. The Turkish side, in an effort to strengthen its presence in Thrace, took advantage of the Pomaks' unfavourable social situation by aiming at their development of a Turkish identity by helping them to prosper. They argued that Pomaks are Turks, because they are Muslims. One more basic argument used was official recognition, through the Treaty of Lausanne, of the Turkish language as the mother language of all pupils attending minority schools. Although those arguments were indefensible, they had great success in convincing Pomaks that they were of Turkish origin. It was too late in 1980 when the Greek state realised that they should develop a political view that would keep Pomaks away from the Turkish ideological influence. However, the Muslim religion constitutes the only connection between Pomaks and Turks, as their songs, their customs, their houses, the Pomak language and their whole culture reveals³¹.

Consequently, these groups attend the minority primary schools, where the medium of instruction is both Turkish and Greek, neither of which are their mother tongue. The language of Pomaks as well as the Romani language, which Pomaks and Roma speak in the families respectively, are totally ignored in minority primary schools. The worst issue is that it seems impossible for pupils belonging to the Muslim group, either Turkish speaking or Pomaks or Roma to further their education. No provision has been made for the operation of minority high schools, with the exception of two. So, they have to attend Greek high schools, where the official language is Greek, and this results in their linguistic confusion and illiteracy. However, some Turkish parents who live in Greece and have the appropriate financial background, decide to send their children to attend school in Turkey because they know that the education offered in Thrace for them will not help them further their studies.³²

3. Conclusions

The historical review reveals that Greece has been exposed to plurality and diversity since ancient times. The description of the composition of the pupil population also reveals the diversity existing within the Greek educational system nowadays and the necessity of the implementation of intercultural education not only in the schools designated as intercultural primary and high schools in Greece but also in all mainstream schools all over the country.

The description of the composition of the population in Greece – and as a consequence the composition of the pupil population – shows

31 Magriotis, J. 1994. *Pomaki or Rodopei – the Greek Muslims*, 4th edn. Athens: Pelasgos p.23.

32 Katsikas and Politou (2005) Does 'different' exist out of the classroom? 2ⁿ edn. Athens: Gutenberg p.188.

that the implementation of intercultural education in Greece constitutes an imperative issue for several reasons. First of all, Greece, as most countries, are now demographically plural in nature due to invasion, wars, treaties, post-decolonisation and work mobility³³. Consequently, there is cultural diversity in the population of Greece and of each country. Pupils and future citizens need to be equipped with the appropriate skills for establishing cross-cultural communication and understanding³⁴ for developing cooperation with people from diverse cultures as well as establishing social cohesion.

Secondly, according to hybridity theory each cultural identity is a cultural mixture because it consists of religion, language, class, gender, race and nationality³⁵. Each cultural identity is unique and dynamic, as it is constantly reshaped³⁶. In this sense intercultural education promotes openness and respect towards each cultural identity³⁷. The notion also implies equity of cultures.

Moreover, the implementation of intercultural education will reinforce pupils' positive attitudes towards 'difference' and pupils from diverse cultural backgrounds will experience educational equality³⁸, which is, in principle, an inalienable human right of democratic societies. They will be able to use their own cultural experiences to develop skills³⁹. In addition, all pupils will benefit from the exchange of cultural elements⁴⁰. Their cultural similarities will unite them while at the same time they will be able to preserve their own cultural identity⁴¹. The maintenance of one's culture constitutes the fourth reason

33 Fennes, H. and Hapgood, K. 1997. *Intercultural Learning in Classrooms. Crossing Borders*. London: Cassell p.40.

Rocha-Trindade, M. B. and Sobral Mendes, M. L. 1997. Intercultural Education: Policies within Europe. In D. Woodrow, G. K. Verma, Rocha-Trindade, G. Campani and C. Bagley, eds., *Intercultural Education: Theories, Policies and Practice* p.7. Aldershot: Ashgate.

34 Camileri, C. 1992a. From Multicultural to Intercultural: How to Move from One to the Other. In J. Lynch, C. Modgil and S. Modgil, eds., *Education for Cultural Diversity; Convergence and Divergence, volume one* London: Falmer Press p.142.

Besalu Costa, X. 1997. Intercultural Education and Teacher Training. In D. Woodrow, G. K. Verma, Rocha-Trindade, G. Campani and C. Bagley, eds., *Intercultural Education: Theories, Policies and Practice* Aldershot: Ashgate p.187.

35 Ackermann, A. (2012) Cultural Hybridity: Between Metaphor and Empiricism. In P. Wolfgang, ed., *Conceptualizing Cultural Hybridization; a Transdisciplinary Approach* Berlin: Springer p.5.

36 Spithourakis, J.A. and Sifakis, N. 2005. Children's Intercultural Identity Development through the Teaching of Languages. In P. Papoulia-Tzelepi, S. Hegstrup and A. Ross (eds) *Emerging Identities among Young Children: European Issues* p.91. London: Trentham Books.

37 Georgogiannis, P. 1999. Immigrant Children's and Minority Populations; Educational Models. In P. Georgogiannis, ed., *Issues of Intercultural Education* p. 51. Athens: Gutenberg.

38 Banks, J. 1995 Multicultural Education: Historical Development, Dimensions and Practice. In J. Banks and C. McGee Banks (eds) *Handbook of Research on Multicultural Education* p.5. New York: Macmillan Publishing USA.

39 Gollnick, D. and Chinn, P. 1994. *Multicultural Education in a Pluralistic Society*, 4th edn. New York: Macmillan Publishing Company p.29.

40 Pesketzi, M. 1997. The Problem of Reading Literature and Intercultural Education. In G. Markou, ed., *Intercultural Education – Teachers' Training: an Alternative Suggestion* p.228. Athens: Center of Intercultural Education, University of Athens.

41 Govaris, C. (2001) *Introduction to Intercultural Education*. Athens: Atrapos p.90.

towards the implementation of intercultural education. According to Katevas (1998)⁴² the rejection of a child's cultural identity has negative consequences to his/her self-esteem, emotional and intellectual development. In turn, mutual acceptance and understanding of differences will lead to peaceful co-existence of diverse cultural groups.

More specifically, the successful establishment of an intercultural ethos in the school presupposes appropriate organisation in all of its levels ranging from internal organisation and the appropriate preparation of its staff to its liaison with the pupils' parents and the community. Headship plays a key role in the formation of an intercultural ethos in the school. Headteachers ought to be positive towards the implementation of intercultural education, approve and support teachers' suggestions for the promotion of intercultural education and encourage them to organise activities towards it. Furthermore, the policy of each school towards the implementation of intercultural education needs to be stable and continuous. The educational actions adopted in each school, ranging from the operation of classes in which foreign and repatriate pupils are taught their first language to advisory seminars for those pupils' parents and educational projects aiming at combating racism, prejudice and xenophobia, would be better for not having an intercalary and transient character and not being organised only with the initiative of the headteacher of the school or within the framework of projects funded by the European Union of Greek universities. Instead of that it would be better if they constituted established educational actions implemented every school year and supported by the National Ministry of Education and related organisations. The establishment of a network of cooperation between schools for the exchange of ideas, experiences and practices in relation to the implementation of intercultural education is equally important. At this point, it should be added that celebrations and other events organised by the pupils of the school aiming at raising all pupils' cultural characteristics could also be presented in the local community to which the school belongs so that an intercultural continuum be established in the whole society.

Regarding the implications of policy in terms of curriculum, this needs to be characterised with flexibility so as to be adjusted to the educational needs of the different groups of pupils accommodated in each school⁴³. Each one of the schools has its own singularity and uniqueness in terms of pupils' cultural characteristics as well as in terms of the existing situation in relation to the history of the local community in which each school belongs to and constitutes part of it⁴⁴. Therefore, it would be wise to design the curriculum by providing the freedom to

42 Katevas, G. (1998) The Education of Children with Cultural and Social Deficiency. Applications of Intercultural Education in School, *Educational Issues*, (47-48), p.115.

43 Hemelsoet, E. 2015 Shaping the Right to Education for Roma Children: a Case Study of Present Practices in Ghent, Belgium, *Intercultural Education*, 26 (2): p.101.

44 Vakalios, T., Kanakidou, E., Panagiotidis, N. and Pagagianni, V. 1997. *The Problem of Intercultural Education in West Thrace*. Athens: Gutenberg p.77.

teachers to choose the content of each subject and decide on its adjustment to the needs and the interests of their pupils.

The connection of the schools with society for the implementation of intercultural education is important. According to the ancient Greek philosophy the term 'polity' > 'πολιτεία' denotes a group of people who live in a specific territory which is organised under political underpinnings. Therefore, each school is part of the society. It is affected by the particular characteristics of the polity to which it belongs and these particular characteristics have to be taken into consideration towards the implementation of intercultural education. In this sense, schooling has a civic and social dimension. I am not claiming that schools are a panacea for wider social problems and tensions, but they can contribute to their solutions.

At this point it should be mentioned that the adjustment of the official curriculum to the needs of pupils accommodated in schools or the application of special curricula with the addition of supplementary or alternative subjects as well as the reduction of the number of pupils in each class and the reduction of teachers' working hours due to the special circumstances existing in those schools constitute issues which are discussed in law 2413/1996 regarding intercultural education. Law 2413/1996 gives the right to intercultural schools to proceed with the aforementioned changes or alterations when the circumstances of the school demand it after gaining approval by the National Ministry of Education. However, as the research revealed this has not been implemented due to the existing bureaucracy and this constitutes an issue that could be reassessed.

According to research undertaken in mainstream primary schools⁴⁵ as well as in intercultural primary schools teachers also discuss their lack of formal training on issues of intercultural education and the demographic data obtained from questionnaires confirmed that 69.2% of the teachers do not have any further qualifications. According to the Ministerial Decision Φ.361.23/159/Δ1/5271 of 1997⁴⁶ made by the National Ministry of Education teachers asking to transfer to intercultural schools need to have sufficient knowledge of the mother tongue of the majority of foreign pupils accommodated in the school. Moreover, they need to have further qualifications in education such as training in issues of teaching Greek as a second language, postgraduate studies in education in general or in intercultural education, attendance at conferences or seminars relating to intercultural education and teaching experience in reception classes or intensive classes. However, ten years after the enactment of those laws,

45 Sismanidou, U. 2005. *Intercultural Education in Greece: Legislation and Primary School Teachers' Views*. MA Thesis, University of Thessaloniki p.57.

Tsaliki, E. 2012. *Intercultural Education in Greece; the Case of Thirteen Primary Schools*. PhD Thesis, Institute of Education, University of London p.202.

46 Ministerial Decision Φ.361.23/159/Δ1/5271 by the National Ministry of Education *Processes and Presuppositions of the Transfer of Primary School Teachers and High School Teachers to Schools of Intercultural Education*. Volume of the Newspaper of the Government 6537/17.7.1997

when the present research was undertaken, teachers keep on referring to these unresolved problems which constitute an issue that needs to be re-examined, although the law takes provision for those issues.

To continue with educational legislation, the law 2413/1996⁴⁷ on intercultural education and related issues does not clarify the aims of intercultural education and this issue has to be revisited, because the definition of the aims of intercultural education constitutes the first step for moving on to its implementation. Furthermore, as it has been briefly stated in the introduction chapter, according to the same law some schools have been renamed as intercultural schools in order to meet the educational, social and cultural needs of their pupils. However, it is not specified to which groups of pupils this law refers, how these educational, social and cultural needs are defined and how teachers can meet those pupils' needs. Therefore, the aforementioned issues are necessary to be re-orientated. In addition, the designation of some schools as 'intercultural schools' has led to a disproportion in terms of pupils' country of origin. This shows that native pupils' parents are negative to enrolling their children in schools which are designated intercultural because they accommodate a large number of foreign or repatriate pupils⁴⁸. Therefore, the reality of the actual operation of minority schools which are just titled 'intercultural' constitutes an issue which needs to be reassessed seriously and with every responsibility.

Finally, the role and the operation of reception classes and intensive classes are suggested to be redefined. The education they offer in their present form is restricted in the teaching of Greek as a second language; that is these classes operate exclusively as compensatory educational measures in which pupils' first language and culture is not taken into account and it is not taught at all. In this sense, their operation constitutes an assimilationist educational policy which cannot be placed within the framework of intercultural education. In brief, the aforementioned problems and inadequacies at legislative and practical level are in contradiction with the concept of intercultural education as its nature is defined by the literature review and the present study. Therefore, the implementation of intercultural education in Greece has to be re-examined and be re-defined in combination with the overcoming of the ethnocentric conception of culture and of nation state.

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⁴⁷ Law number 2413: *Greek Education Abroad, Intercultural Education and Other Provisions*. Volume of the Newspaper of Government 124/17.06.1996, first issue.

⁴⁸ Tsaliki, E. 2012. *Intercultural Education in Greece; the Case of Thirteen Primary Schools*. PhD Thesis, Institute of Education, University of London p.212.

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Papadopoulou Anthoula

**The cultivation of the national
and the European identity in the Modern
Greek Language textbooks
from the perspective of Peace Pedagogy**

Abstract

The aim of this paper is to look into the elements in the Modern Greek Language textbooks, currently used in Junior High School, which compose the national and the European identity of students. The research showed that although the analyzed textbooks seek to constitute both the national and the European identity, more importance seems to be given to the former. The result is the strengthening of the national identity in contrast with the European one. Given that the cultivation of a “closed” national identity through education is reversed by the modern reality, the review and rewriting of the analyzed textbooks, based on the principles of Peace Pedagogy, appears as an imperative.

1. Theoretical framework

With theoretical assumptions based on the International Research of the School textbook-where the textbook is considered as a means of instruction-as well as on Peace Pedagogy and Education for Peace,the aim of this paper is to look

into those elements which compose the national and the European identity of students in the content of Modern Greek Language textbooks, currently used in Greek Junior High School.

The textbook accomplishes specific functions in the educational process, which can be either apparent or latent¹ and aims at concrete goals². The central position of the textbook in teaching and learning³ as well as its regard as an authority constitute it an undoubtable symbol of power⁴ and a vital instrument in the process of constructing legitimized ideologies and beliefs⁵.

The textbook functions as a means of socialization and can thus contribute to the promotion of Peace Pedagogy under certain circumstances. The object of Peace Pedagogy is “the planning of an education that examines the different forms of violence (direct and indirect-structural) and the absence of peace on international and intersocietal level. It also analyzes the causes and diagnoses the relation of cause-effect between these phenomena, but also contributes to their reduction”⁶ (Wulf 1978, source: Bonidis 1998). Peace Education, on the other side, constitutes one of the epistemological directions of Peace Pedagogy; it is based on the belief that peace can be taught⁷, it teaches non-violence and respect and aims at providing individuals with knowledge, skills and behaviors that will constitute the keystones of peaceful and secure societies⁸.

1 Koutselini-Ioannidou, M. (1996), Theoretical framework for the evaluation of the educational textbooks. *New Education*, 79, p.p. 70-77.

2 Hummel, C. (1988), *School Textbooks and Lifelong Education: An Analysis of Schoolbooks from Three Countries*. Hamburg: UNESCO Institute of Education, p.p. 14-17, Seguin, R. (1989), *The Elaboration of School Textbooks. Methodological Guide*. Paris: UNESCO, p.p. 19-28, Xochellis, P. (2005), Criteria of validity, reliability and educational appropriateness of textbooks. In: C. Veikou (ed.) *Textbook and educational materials to school: Considerations - opportunities - perspectives*. Athens: Ziti, p.p. 32-38, Kapsalis, A. & Charalambous, D. (2008), *Textbooks. Institutional evolution and contemporary way of thinking*. Athens: Metaixmio, p.p. 214-235, Bonidis, K. (2004), *The content of the textbook as a research subject: timeless examination of the related research and methodological approaches*. Athens: Metaixmio, p.p. 1-2.

3 Johnsen, E. (1993), *Textbooks in the Kaleidoscope. A Critical Survey of Literature and Research on Educational Texts*. Transl.L. Sivesind, Oslo: Scandinavian University Press, p. 24.

4 Kontova, M., Papadopoulou, A. (2012), *The War as a form of violence: The cases of History and Modern Greek Literature textbooks currently used in Junior High School from the perspective of Peace Pedagogy*. In: «Greek Pedagogy and Educational Research», Proceedings of the 8th National Conference of the Pedagogical Society of Greece (Ioannina 2-4 November 2012). Ioannina (in press).

5 Crawford, K. (2000), *Researching the Ideological and Political Role of the History Textbook - Issues and Methods*. *International Journal of Historical Learning, Teaching and Research*, Vol. 1, N. 1, p. 5.

6 Bonidis, K. (1998), *Research of the learning and teaching “official” texts in Greek Primary Education: The analysis of the in use textbooks of the language lesson in the light of the Pedagogy of Peace*, (unpublished doctoral dissertation). Thessaloniki: Aristotle University of Thessaloniki, p. 12.

7 Iram, Y. (ed.) (2003), *Education of Minorities and Peace Education in Pluralistic Societies*. London: Praeger, p. 57.

8 Reardon, B. (1988), *Comprehensive peace education: educating for global responsibility*. New York: Teachers College Press, p. x, Salomon, G., Nevo, B. (2002), *Peace Education: The Content, Principles, and Practices Around the World*. USA: Lawrence Erlbaum Associate, p.19, Harris, I., Morrison, M. (2003), *Peace education (2nd edition)*. Jefferson, North Carolina and London: McFarland & Co, p.p. 66-75, UNESCO (2006), *Plan of Action. World Programme for Human Rights Education*. Paris: UNESCO, p.12.

2. The Modern Greek Language textbooks

A timeless feature of Language school textbooks is that they contribute to the acquisition of the Greek language and at the same time they convey and cultivate moral virtue, values and ideas on students through the interpretation of the passages, the images and the practice within metalinguistic exercises which are comprehended in the school textbooks affecting the students' personality to a great extent⁹.

What is special about Language school textbooks is that they do not constitute a single continuous narration but they contain a variety of texts of different origin and style which deal with plethora of issues. The fragmentation and the thematic diversity make it difficult to identify the ideology and the running representations, because of the lack of a common and distinct argument that governs Language school textbooks¹⁰. In this way, the transmission of messages becomes stronger and more efficient compared with other courses, such as History and Geography¹¹.

This lack of a concrete argument in the content of Modern Greek Language textbooks is a peculiarity compared with the content of textbooks of the other school subjects being taught in Greek school. This does not mean that it is a negative characteristic. It is inevitable, since the main criterion for the selection of texts, which are embodied in Modern Greek Language textbooks, is their adequacy and effectiveness for language teaching¹². Furthermore, the thematic diversity is necessary because it allows the well-rounded socialization of students and their awareness of contemporary and topical issues, such as war and peace, human rights, ecology –issues that are being discussed in the analyzed textbooks.

3. The starting point for the research

Although there is a large body of research on Greek textbooks¹³, such as Literature textbooks¹⁴, Geography textbooks¹⁵ but mainly on History

9 Papadopoulou, A. (2012), The Modern Greek Language textbooks, currently used in secondary school, from the perspective of Peace Pedagogy, (unpublished thesis). Thessaloniki: Aristotle University of Thessaloniki, p. 40.

10 Papadopoulou, A. (2014), How Greeks view their Neighbors in the content of Language school Textbooks. In: B. Goudiras, M. Rantzou, (eds) (2014), The Image of the “Other”/the Neighbour in the Educational Systems of the Balkan Countries (1998-2013), Proceedings of the 16th Conference of Balkan Society for Pedagogy and Education (Thessaloniki 26-29 September 2013). Thessaloniki: University of Macedonia Press, p. 748.

11 Askouni, N. (1997), “A long journey in time ...”: Greeks and the others in language textbooks”. In: A. Fragoudaki, Th. Dragona (eds), What is our country?: Ethnocentrism in education. Athens: Alexandria, p. 442.

12 Askouni, N. (1997), “A long journey in time ...”: Greeks and the others in language textbooks”. In: A. Fragoudaki, Th. Dragona (eds), What is our country?: Ethnocentrism in education. Athens: Alexandria, p. 442.

13 A small piece of researches on national identity is cited here.

14 Kelepouri, M. (2006), The teaching of Literature and the constitution of national self to secondary education: the national dimension of social function of literary phenomenon, (unpublished doctoral dissertation). Thessaloniki: Aristotle University of Thessaloniki, Perpiraki, M. (2010), The construction of national identity in Literature textbooks of Junior High School, (unpublished thesis). Thessaloniki: Aristotle University of Thessaloniki.

15 Palaskas, S. (2012), The constitution of Greek nation and the education: research on Geography textbooks of

textbooks¹⁶ about the national “self” and the cultivation or construction of national identity, there is no comparative research on the elements that contribute to the cultivation of the national and European identity, which students have to develop as future citizens of Greece and Europe. So, this research attempts to begin a new discussion in the field of textbook research, since, from my point of view, we are not primarily Greeks and only secondarily Europeans but we bear both identities at the same time.

4. The material under research

The Language school textbooks which are analyzed are the following:

- a) Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT (in Greek).
- b) Gavriilidou, M., Emmanouilidis, P., Petridou-Emmanouilidou, E. (2006), Modern Greek Language, 2nd grade of Junior High School. Athens OPT (in Greek).
- c) Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT (in Greek).

5. Methodology

The research applied the Qualitative Content Analysis as a methodological tool. Data were analyzed in accordance with two descriptive “models”:

- a) The “Structure of Content” i.e. through the study of specific themes in the material under analysis and their presentation with the technique of paraphrase, and
- b) The “Model Structure”, which involves the identification of typical references and “model” references from a theoretical or semantic point of view, which are incorporated into a system of categories and subcategories and presented in detail¹⁷.

Greek state (1834-1922). Thessaloniki: Nisides.

16 Konstantinidou, E. (2000), The construction of national identity in Greek History textbooks: a critical socio-psychological approach, (unpublished doctoral dissertation). Thessaloniki: Aristotle University of Thessaloniki, Konstantinidou, E. (2001), Reconsidering the Constitution of School Historical Knowledge: The Greek History Schoolbooks as Texts of National Identity. In: “The Eight International Literacy & Education Research Network Conference on Learning”, Proceedings of the Learning Conference 2001 (Spetses 4-8 July 2001), Konstantinidou, E. (2003), The language of Greek History textbooks and the construction of national identity: an approach in the frame of critical language awareness and critical literacy. In: Studies of Greek Linguistics, Proceedings of the 23rd annual meeting of the Department of Linguistics, Faculty of Philosophy, Aristotle University of Thessaloniki (Thessaloniki 17-19 Μαΐου 2003). Thessaloniki: Manolis Triandaphyllidis Foundation, p.p. 53-64, Moustaka, P. (2009). The construction of national identity in the new History textbooks of Junior High School, (unpublished thesis). Thessaloniki: Aristotle University of Thessaloniki, Mariolis, D. (2013). National identity and ideology in History textbooks of 6th grade of Elementary school during the after civil war era (1950-1974), (unpublished thesis). Athens: Panteion University.

17 Mayring, Ph. (1985), “Qualitative Inhaltsanalyse”. In: G. Jöttemann (ed.), Qualitative Forschung in der Psychologie. Grundfragen, Verfahrensweisen, Anwendungsfelder. Weinheim: Deutscher Studien Verlag, pp.

6. The results

The cultivation of national identity appears to constitute a goal of the analyzed textbooks. The national identity is structured on the basis of the elements that compose patriotism but also on the elements that constitute ethnocentrism. To be more specific:

In patriotism the love for the homeland seems to be a value of utmost importance and even exceeds the love for the family. The love for the homeland is also made obvious in sports. The athletic successes emerge as national events that diffuse tremors of national pathos, pride and joy:

-“Homeland is more honorable, decent and sacred than mother, father and all the other ancestors.

Plato, Criton (4th century B. C.) ”¹⁸

Image 1¹⁹



This picture, which portrays the celebration of Greek soccer players who won EURO 2004, is accompanied by a text that speaks about the national pride and joy that this victory generated for all Greeks.

The historical information, which is provided without extreme sentimentality in a not arrogant way also contributes to the constitution of national identity. The illustration of cultural traditions and customs that are related with

187-211, Bonidis, K. (2013), The Content Analysis as a mixed qualitative methodological approach of text analysis. In: M. Pourkos, (ed.), Possibilities and Limits of the blending of Methodologies in the Social and Educational Research: Broadening the Perspectives in the inquiring Design. Athens: Ion, p. 476.

18 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 12 (in Greek).

19 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 129 (in Greek).

national and religious celebrations, of religious rituals, traditional uniforms, historical monuments, the references on art and on the Greek mythology but also on the natural beauty of Greece and local cuisine also contribute to the cultivation of national identity:

Image 2²⁰. A Greek traditional uniform.



-“[...] and we left home to eat garlic dip for the good of the day, [...]”²¹

-“The customs of marriage, “brotherhood”, “vendetta”, burial and lamentations present a great interest.

Usually the women of Mani used to improvise lamentations by themselves. The lamentations destined to praise the deceased and comfort the alive”²²

The relationship of the national “self” with religion also contributes to the development of patriotism. The national “self” is a faithful Christian who participates in religious rituals with devotion and believes that God is the ultimate regulator of life who determines the future and generously offers material goods:

Image 3²³



20 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 128 (in Greek).

21 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 83 (in Greek).

22 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 150 (in Greek).

23 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 14 (in Greek).

The typical Greek Easter requires lamb on the spit, drinking and feast.

On the other hand, in the analyzed textbooks we also find elements that constitute ethnocentrism. More specifically:

A basic ethnocentric element is the romantic view of the “natural” and eternal entity of the Greek nation, which reflects the inherited romanticism of the 19th century. This process, which is accomplished by connecting the past, present and future, makes the national “self”, which strongly resists its conception as a historical product, to appear as a collective subject, homogeneous and undifferentiated in time:

- “The island is known since antiquity for its wine; drunk as a fine drink by the heroes of the Iliad.”²⁴

Although Modern Greeks appear as the descendants of the ancient Greeks the characteristics of the national “self”, as reflected in the textbooks of Modern Greek Language, present an oddity. The ancient Greeks are identified with positive attributes, whereas only negative characteristics are attributed to the modern Greeks. So, with the ancient Greeks being glorified and the modern Greeks criticized, the analyzed textbooks seem to suggest the return to the ancient Greek spirit; in this way the modern Greeks can regain their identity and “shine” just as their ancestors:

- “The Greeks were great thinkers, great creators lovers of beauty and works of the spirit.”²⁵
- “And all this is because the Greek has completely changed his mentality. I do not remember him ever being so cruel, rude, shameless, inhospitable, pettifogging, bad fellow and neighbor. He is not aware and by no means does he accept to admit that for everything there is also the personal responsibility.”²⁶

The consideration of the unique contribution of the Greek culture to the world heritage also constitutes an ethnocentric orientation. The Greeks - and in particular the ancient Greeks- may have never been a great political force; however, they have had a brilliant development in the field of sciences, culture and the arts, passing on to the world unique discoveries and scientific theories of decisive value, which constituted the base for the world progress and development. Furthermore, as the modern European culture has its roots in the ancient Greek culture, it perpetuates and distributes its cultural achievements to all European states. Thus, the Greek culture is raised to a symbol, acquiring a catholic dimension and recognition:

24 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 155 (in Greek).

25 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 10 (in Greek).

26 Gavriilidou, M., Emmanouilidis, P., Petridou-Emmanouilidou, E. (2006), Modern Greek Language, 2nd grade of Junior High School. Athens OPT, p. 126 (in Greek).

- “The real history of Greece [...] is neither its political issues now the wars. It is its culture. [...]

The Greeks never became a big power, as the Egyptians, Assyrians and Persians. [...] The field where they achieved so much was the kingdom of spirit, the region of mind. It is where they put strong foundations and where today the entire human thought and the entire cultural structure are based on.”²⁷

- “We are going to photograph ancient Pella, the birthplace of Alexander the Great, he added. The mosaics are famous all over the world.”²⁸

One of the elements, which functions in an ethnocentric way is also the religion, as it seems to constitute the link between the past and the present. The consideration of the Christian faith as superior to other religious faiths, serves the same ethnocentric logic:

- “It is often difficult for the Anglo-Saxon traveller to understand how a country that seems to be “soaked to the bone” by the Byzantine tradition of orthodoxy, a tradition which is unmistakable even in churches in the smallest villages or monasteries on the most remote mountain slopes, can abandon itself to the earthly delights. [...] One explanation is that the world is repaying its debt to the Church by celebrating the sacraments of baptism, marriage and funeral, and the Church, demanding rituals, is lenient in the cases of confession and religious moralism and faces personal sin with more tolerance than most religions. After all, the Church openly glorifies the rich mercies of the Lord with the numerous celebrations, especially during Easter, a time when grilled lamb smells in the countryside and the white tables are filled with traditional delicacies.”²⁹

The promotion of national “self” being protected by the divine element consists an ethnocentric feature and derives from the putative cultural supremacy and superiority of the nation. Whether in the case of the twelve Olympian gods in ancient times or that of the God in modern times, the divine element is always there to protect and justify the national “self”, confirming its value and rewarding people for their great faith:

- “[...] The Greeks, under the invisible presence and protection of the gods [...]”³⁰
- “In my mind the images unfold one by one; I picture that morning of June 12th, when at the break of day I left sleepless to Porto via Frankfurt. Back then I had planned to spend 10 days on the three matches against Portugal, Spain and Russia. Few hours had passed of my sojourn in Portugal, when the first miracle happened.”³¹

27 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 10 (in Greek).

28 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 139 (in Greek).

29 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 14 (in Greek).

30 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 125 (in Greek).

31 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School.

Another “proof” of the cultural supremacy of the national “self” over the other cultures this time, which constitutes ethnocentrism, are the Olympic Games, stated to be a unique global phenomenon in their genesis. This superiority of the ancient Greeks is also reinforced by the value attributed to the crown of victory, that was considered superior to any other treasure:

- “No other people, before and after the Greeks have set such a goal with such exclusivity and intensity. And in no other culture was the reward of this ideal, the wreath of victory, regarded so consistently as the highest good among all the treasures of the world which the gods might give to human.”³²

According to the analyzed textbooks, also the geographic location contributed to the global offer of the national “self”; being the channel of communication between two worlds, the eastern and the western, it functioned as a crossroad of populations:

- “The Greek space in its geographic, economic, social and intellectual structures has always constituted in its entire history a boundary between two separate worlds - the east and the west- which did never remain resistantly closed. The role of Hellenism was fundamental in the communication between these two worlds.”³³

Furthermore, the geographic location of the Greece, determined directly by the climatic and environmental conditions, as noted, has long been appealing to the national “other”, who is expressing and actualizing his desire to acquire a lodge in Greece, in order to be able to enjoy the natural beauty and the sun:

- ““If you have ever dreamed of βα life in the sunβ, Greece is the place where your dream can come true.” This is not an advertisement of Greek Tourism Organization. It belongs to the introductory text of a website of foreign estate that sells all kinds of Greek properties to foreign customers.”³⁴

The way in which the Greek language is presented is also ethnocentric. The analyzed textbooks present the wealth of the Greek language and the fact that other foreign languages draw on its linguistic loans. However, the loans of Greek from other languages are faced in a negative way, since it is considered that the adoption of new foreign terms damages the Greek language and the linguistic intuition of the national “self”:

- “Many English words and word elements can be traced back to Latin and Greek.”³⁵

Athens: OPT, p. 129 (in Greek).

32 Aggelakos, K., Katsarou, E., Maggana, A. (2006), Modern Greek Language, 1st grade of Junior High School. Athens: OPT, p. 124 (in Greek).

33 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 12 (in Greek).

34 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, pp. 24-25 (in Greek).

35 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High

- “[...] So, the Greek-speaking user selects English nodes more often for updating from the well-known yahoo, cnn, abn, nbc etc. [...] not to mention the anglophone newspapers and magazines, particularly journals referred to by all interested parties. The concern expressed is lest this obligatory adherence to English endangers the modern Greek language; in other words the continuous use of English might skew the linguistic intuition of the Greek users and hence the language itself.

This problem is added to the general and wide problematisation over the risk of Greek language because of the extensive linguistics loans from English in the fields of IT and networks-as well as the globalization in general. The Declaration of forty members of the Academy is a well-known document produced by academics, who are concerned about the replacement of the Greek alphabet by Latin in “texts produced on computers”, obviously referring to the popular Greeklish.”³⁶

Moreover the textbooks of Modern Greek Language also aim at cultivating the European identity. To be more specific:

The main objective of the European Union, according to the material under research, is the constitution of a Confederation³⁷ of culture and education of the member-states; these will maintain their national identity and will at the same time also develop a common European identity that will be characterized by a spirit of collaboration and cooperation, aiming at prosperity and peace. The European Union, having roots in Greece, Rome, Christianity, Humanism, baroque and the Enlightenment, envisages a positive peace; that is the establishment of social justice, the absolute implementation and application of human rights, the reduction of inequalities, the ecological balance and the resistance to the imperatives of economic interests. Its vision is not limited only to the European geographical area but spreads across the entire planet:

- “[...] the ultimate goal is the creation of a Confederation [...]”³⁸
- “The big Europe must not be built without window: open to the South, the Third World, the entire Earth, not to dominate them, but to discuss with them and help them. Then Europe must not be run only by money, by business, by the material interests. It must be a Europe of culture and education. [...] This is its biggest advantage, the most valuable heritage of all. Remember: Greece and Rome, Christianity, Humanism, Baroque, Enlightenment and continuity.

It must be a Europe of Human Rights, which is its creation. A Europe of the woman and child. A fairer Europe, which is struggling against inequality,

School. Athens: OPT, p. 77 (in Greek).

36 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), *Modern Greek Language*, 3rd grade of Junior High School. Athens: OPT, p. 36 (in Greek).

37 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), *Modern Greek Language*, 3rd grade of Junior High School. Athens: OPT, p. 65 (in Greek).

38 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), *Modern Greek Language*, 3rd grade of Junior High School. Athens: OPT, p. 65 (in Greek).

unemployment, exclusion-negative phenomena which Europeans can only fight together. A Europe more concerned about maintaining the balance between people, animals and nature.”³⁹

The desire of European Union, as it is stated in the analyzed material, is to infuse European citizens with its vision -especially young people who constitute the future- and introduce them to the logic of unity and cooperation. Thus Europe organizes festivals and exchanges programs so as European citizens from different cultural backgrounds contact, meet new cultures and become aware of the elements that they have in common together with their mutual concerns. In this way, European citizens might overcome the obstacles that used to divide the older generations of Europeans and work together for peace and prosperity:

- “I think that the realization of a beautiful and good Europe is the big plan which is offered to your generation. All of us need, especially when we are young, a great goal that will become an ideal and a passion. Be passionate about the European construction, it deserves it. If you help European Union to succeed, this will fulfill your life, even if you have to overcome obstacles. Nothing important is achieved without attempt.”⁴⁰
- “Contacting with each other young people of Europe realize that they have a lot of common dreams and expectations, but as well as problems and concerns. That’s why by overriding whatever used to divide the Europeans of older generation, young Europeans cooperate for the success of European Union, for peace and for mutual prosperity.”⁴¹

However, according to the material under research, its founding objectives and its declarations do not appear to have convinced all European citizens, as there are intense claims about the leveling of the national cultural identity and the imposition of a European cultural homogeneity:

- “Many believe that the new reality configuring in Europe can lead to a cultural homogeneity and eliminate all the best among the national or local traditions of its people.”⁴²

The national retrenchment and isolation appear to be the only solution against the danger of absolute cultural uniformity for the member states; however those are inhibitory factors to the function of European Union. According to the material under analysis, the European developments do not consist a threat; On the contrary, they can work in defense of peoples’ diversity:

39 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 72 (in Greek).

40 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 72 (in Greek).

41 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 71 (in Greek).

42 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 71 (in Greek).

- “This evolution cannot become real by adhering to national, religious or other particularities that are supposed to be in danger and with denial of participation to the European developments. Through European cultural developments should be acquired a different dimension and dynamic.[...] The European developments do not lead to the “hell of culture”. On the contrary, the ability to defend peoples’ diversity is secured against the depressing uniformity imposed by market forces.”⁴³

As it is mainly stated in the analyzed school textbooks the elimination of national cultural identity is not the result of European unity but the actual causes are to be found in the increasing power of market, the development of communication and in the interconnection of local communities with global ones, which has created new conditions that the member-states were not interested to dealing with:

- “The evolution towards the European Union, especially when the final goal is the creation of a Confederation, causes the fear lest it will guide to the loss of our national features, of our identity. The danger for our identity does not originate from the process of European integration. The expansion of the market, the development of communications, the linking of local communities with the surrounding international environment has led to both the standardization of cultural products, and their absolutely free circulation beyond national borders.”⁴⁴

There is also an intense criticism regarding the effectiveness of the initial willingness of the integration to work together in order to configure a unified, equal and prosperous Europe, since the member-states seem to act based on their own interests and to undermine the vision of the Union. Depicted is also the continuous competition against America, which is in contrast with the initial desire to establish world peace:

Image 4⁴⁵



43 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 65 (in Greek).

44 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 65 (in Greek).

45 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 66 (in Greek).

The sketch was published during the Conference of European leaders in Athens in the spring of 2003. Its title “Europe of 25 ... “ implies some irony, since the ellipsis raise questions. Is it a Europe governed by 25 different people? And if so, does Europe belong to them? The cartoonist expresses disbelief and concern for the Conference of the European leaders. So, he portrays them as swallows, which, although they promise a better world, are scattered in space looking in different directions, without any apparent willingness to cooperate. The depiction of swallows with the stars of Europe on placards create the sense that it is about a protest.

Image 5⁴⁶



The old woman on the sketch represents the old continent, Europe, envisioning its victory against America. America is a big fish, a shark, which goes ahead of Europe, while the European countries are much smaller and weaker fishes, which, however, all joined together form a bigger fish. Thus, the united Europe, being much stronger now, is chasing America, which swims, worried and anxious to escape. The sketch depicts the existing competition between America and the European Union.

In addition, the questioning of the objectives of the European Union emerges as a result of its policy toward the immigrants, as it stubbornly refuses to recognize them as equal members of the societies in which they live. This common European immigration policy is denounced in the analyzed textbooks. It is characteristic that the author of the particular text is an Albanian journalist and writer who lives and works in Greece:

- “Immigrants, the helots of Europe...

[...] The immigrants in Europe are calculated to be 14 million.

For how long, however, will the immigrants in Europe remain “foreigners from elsewhere”, paying taxes as “nationals”, being members of European societies and contributing enough -as at least the European declarations stress-, to the economic and cultural life of European countries? [...] And here a direct

46 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 84 (in Greek).

question is set: will the immigrants ever become European citizens? ⁴⁷[...]

Then unfortunately – as Balibar writes - we are moving towards an “explosive apartheid” that can “blow up” the European societies and which at the same time is contradictory with the objective of Europe to constitute a democratic model on continental and world level”.⁴⁸

Moreover, a dispute against the effectiveness of employees of European Union head offices can be found in the analyzed material. These people seem to be characterized with sluggishness and lack of empathy towards the vision of European citizen:

- “At each floor we stop we see endless halls which are almost empty. Only at the 9th floor there is a big room full of people. [...] We walk through the huge halls with the endless rows of offices, where there are one, two or three employees... Others tucked on documents between binders and folders, others in front of computer, others talking on phone in different languages, others reading the newspaper and others chatting, drinking their coffee ... The intensity and passion of the upper floors have been replaced by the indolence and bureaucratic tedium.”⁴⁹

Conclusions

The research of the textbooks of Modern Greek Language currently used in Junior High School showed that apart from their linguistic and educational aims they seek to constitute both a national and a European identity. However, there seems to be given more importance to the national identity, since, national identity is already cultivated in the 1st grade of Junior High School while the European identity not until the 3rd grade. Furthermore, as long as the ethnocentric elements are not placed under the light of critique, a “closed” national identity is cultivated, while the European identity is formed in a more critical way, since the European Union is not embellished but presented critically. Undoubtedly, the development of critical thinking towards the institutions is a demand and a necessity; but when it happens only with regard to the European identity and not also with the national identity, students become uncertain with respect to the first and secure with regard to the second.

The result is the strengthening of the national versus the European identity, which on the national level maintains and enhances the differences between the national “self” and the national “other” who lives in Greece. A sense of ethnical supremacy and superiority is created, not allowing Greece and the Greek future

47 I have marked this extract in bold, in order to justify the use of the adverb “stubbornly”. From my point of view, the rhetorical questions which are raised by the author of the text show his exasperation about the fact that despite the acknowledged offer of immigrants Europe shows no will to officially recognize them as European citizens.

48 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p.p. 72-73 (in Greek).

49 Katsarou, E., Maggana, A., Skia, A. Tseliou, V. (2006), Modern Greek Language, 3rd grade of Junior High School. Athens: OPT, p. 75 (in Greek).

citizens to participate fearlessly and equally in the European Union.

The cultivation of a “closed” national identity through education, as a historical and political consequence of the establishment of nation-states in the 18th century, is reversed today by the modern reality. The social and cultural transformations, the globalization, the population movements and the increasing voices about the existence of multiple identities dictate the end of the modernist era and our entry in the era of postmodernity. The transition may be difficult, but should be dealt with promptly and decisively.

Education, all around the world, as one of the most important institutions of socialization, in the framework of which the various cultural identities are constructed, legitimized, transferred and perpetuated or altered, undervalued and marginalized, needs to be restructured. What is needed today, is a reconstruction of educational systems and their foundation on the principles of Peace Pedagogy, aiming at the formation of peaceful personalities with respect to the “other”⁵⁰ and the ability for harmonious coexistence and cooperation⁵¹.

The “other”, given his/her differences, should not continue to be considered as dialectical element for the formation of the national identity and the strengthening of national self-esteem; however, he/she should turn into a dialectical element of creativity and cooperation. Besides, people who belong to the same ethnic group are also different from one another. Imagine how boring it would be, if we were all the same and how static this would be for the development of the world. Our difference lies in our individual uniqueness and not in differences created by the boundaries of the nation state.

In conclusion, regarding the analyzed textbooks, I would suggest their review and rewriting on the basis of the principles of Peace Pedagogy, in order to prepare future citizens who will be working for a global culture of peace and mutual understanding. By this I mean, that nationalism should be reduced through embedded texts in Modern Greek Language textbooks which will present and discuss the national identity in a more critical way. This reviewed content of Modern Greek Language textbooks would help students understand that we

50 It is worth to be cited that nationalism in the content of textbooks is not a Greek phenomenon only. Research has showed the existence of nationalism in the textbooks of many European countries, as well (Repousi, M. (1999), After national history. From the national self to European we...for the instruction of European history. *Contemporary Education*, vol. 104, p.p. 47-58, Flouris, G., Pasiadis, G. (2009), Textbooks and Curricula. “Change of paradigm” on politics of knowledge in Greek Elementary education (1997-2007). *Comparative and International Education Review*, vol. 13, p.p.17-53)

51 Arakistain, M. U. (2003), A legal framework for peace education: Spain and the Basque country. In: W. Wintersteiner, V. Spaji-Vrka, R. Teutsch, (eds), *Peace education in Europe: visions and experiences*. Germany: Waxmann Verlag GmbH., p.p. 292-313, Synott, J. (2005), ‘Peace education as an educational paradigm: review of a changing field using an old measure’. *Journal of Peace Education*, 2: 1, p.p. 3-16, Galtung, J. (2008), Form and Content of Peace Education. In: M. Bajaj, (ed.), *Encyclopedia of Peace Education*. Charlotte: Information Age Publishing., Banks, J. (2009), Diversity and Citizenship Education in Multicultural Nations. *Multicultural Education Review*, Vol. 1, No. 1, p.p. 1-28, Moon, S. (2010), Multicultural and Global Citizenship in the Transnational Age: The Case of South Korea. *International Journal of Multicultural Education*, Vol. 12, No. 1.

cannot settle on the achievements of ancient Greeks but we can leverage this heritage in a more creative way and in accordance with the characteristics and needs of our era. Moreover, the concrete textbooks should be oriented to the promotion of “political literacy”, which “enables students as future citizens to become critical decision makers and social activists for more equitable and just cultural, local, and global communities”⁵². In other words, I am suggesting that Modern Greek Language textbooks should promote the development of a strong national identity, which simultaneously will be flexible, in order for the students to be able to handle the new reality, and be tolerant with the cultural differences of the national “other”. In this way students will cultivate an “open” national identity, which will not impose constraints on peaceful and creative coexistence of different nations and cultures⁵³.

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52 Moon, S. (2010), *Multicultural and Global Citizenship in the Transnational Age: The Case of South Korea*. *International Journal of Multicultural Education*, Vol. 12, No. 1.

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Margaroni Mary

European Schools and Students with Special (Educational) Needs: Applying the Pedagogical Model of Integration or Inclusive Education?

Summary

This study is divided into five sections and examines the legal framework currently in force for the integration of students with special (educational) needs (SEN) in European schools and their common education with students without special (educational) needs. In the first section, the educational philosophy and policy of European schools are briefly analyzed. Next, the institutional framework and statistical data of the last years (2011-2014) concerning SEN students in these schools are presented. The third section discusses the pedagogical models of integration and inclusion through a brief historical comparative approach. Here, the focus is on basic characteristics, the degree of acceptance and implementation, as well as assessments that have been made. Specific integration practices and inclusive education that are implemented by European schools are examined in the fourth section. Finally, in the fifth section, teachers' views are presented regarding their role in the education of SEN students in European schools.¹

¹ This is a summarised version of a communication given on the subject of "Inclusion of children with and without special (educational) needs in the 1st European School, Brussels. Practical applications of an

Key Words: European schools, educational policy, intergration practices, Pedagogy of Inclusive Education

1. The European schools: educational philosophy and educational policy

The European schools were established in the early 1950's with the collaboration of the governments of the member states of the European Union, mainly to serve the needs of the children of staff working at the institutions². Then the admittance to children who do not fall into the above category was approved; enrollment was on condition of payment of high fees. This, however, is often criticized as a sign of elitism. The European Commission which represents all European institutions is a member of the Supreme Council of the European Schools³.

As is clear from the general regulation of the European schools, their aim is to provide a multilingual and multicultural education for all children who attend pre-school, primary and secondary education. Attendance is usually due to parents' work commitments. A special feature of these schools is the fact that students can be taught a significant part of their school courses in their native language, despite the fact that they are in a foreign country. This means that, at any time they can, on a linguistic level, reintegrate back into the education system of their country of origin if they return. There is a limited number of exception where the students' native language is not taught at an European School (SWALS = Students without a Language Section). In such cases, these students are taught the core curriculum in a language other than their mother tongue, and given additional language support for better integration into that foreign language course⁴.

In addition, all students are required to attend some courses in other languages, in particular through the highly effective educational system of language immersion⁵. In this way, they become familiar not only with bilingualism or trilingualism, but even more with multilingualism, which meets the modern requirements of general European language policy for developing intercultural awareness⁶.

educational philosophy of equality" at the 14th International Congress of the Pedagogical Association of Greece with the title "Education for People with Special Needs: A challenge for Schools and Society" (Thessaloniki 1-3 December 2011).

2 http://www.eursc.eu/fichiers/contenu_fichiers1/1063/SW2-DisposAtrois-EL.pdf (accessed: 2/4/2015).

3 <http://www.eursc.eu/index.php?l=3> (accessed: 26/3/2015).

4 Schola Europaea. Bureau du Secrétaire Général (2011). *Règlement Général des Ecoles Européennes* (Ref.: 2011-04-D-11-fr-2).

5 Johnstone, R. (2007), "Characteristics of Immersion Programmes". In: O.Garcia & C. Baker (eds), *Bilingual Education. An Introduction Reader* (Bilingual Education and Bilingualism, 61). Clevedon, Buffalo & Toronto: Multilingual Matters, pp. 19-32.

6 Nelde, P. H. (2004), "The New Multilingualism: A Challenge for a European Language Policy". In: B. Dendrinos & B. Mitsikopoulou (eds), *Policies of Linguistic Pluralism and the Teaching of Languages in Europe*

Attendance at the European schools includes two years at pre-school level and then from the age of four, five years of primary and seven years of secondary education. This leads to the European Baccalaureate after a highly demanding cognitive learning process. There is no form of horizontal differentiation; for example, there are no alternative technical or vocational courses. This makes attendance at European schools not always such an easy option. Fourteen European schools are currently in operation: England (Culham), Belgium (four in Brussels: Uccle, Woluwe, Ixelles and Laeken, and one in Mol), Luxembourg (two in the capital), the Netherlands (Bergen), Germany (Frankfurt, Karlsruhe and Munich), Italy (Varese) and Spain (Alicante), attended by a total of more than 22,000 students of preschool, primary and secondary education⁷. In Heraklion Crete, the School of European Education is the only school in Greece following the European schools curriculum and program regulations⁸.

2. European schools and SEN: institutional framework and statistical data

Already in the early 1980s, the ministerial cabinet of the member states of the European Union was promoting the education policy of integrating SEN students into the general classes of the European Schools, providing them with additional learning support. This particular policy of integration was promoted by the Supreme Council of European schools and included two aspects.

- a. Remedial teaching (enseignement de remédiation, Förderunterricht) was introduced in 1981 in primary schools and from 1995 in pre-school education, for pupils with learning difficulties who were entitled to learning support. The latter term has replaced the previous (remedial teaching) and differed, since learning support is based on targeted individualized assessment of each SEN student.
- b. Since 1995, the integration of students in primary education has been based on an agreement signed between the school of attendance and parents/guardians of the SEN student⁹.

On 22-23 May 2002, with the document 2002-D-98-fr-1 the Supreme Council of the European Schools established in all European schools a team of specialists, dealing solely with SEN students. Furthermore, it was decided to explore the creation of an institutional framework for better integration of the ever growing number of SEN students into European schools at all three levels of education.

(pp. 121-134). Athens: Metaichmio; Dendrinou, B. (2004), "Multilingual Literacy in EU: Toward alternative Discourses in Foreign Language Education Programmes". In: B. Dendrinou & B. Mitsikopoulou (eds), *Policies of Linguistic Pluralism and the Teaching of Languages in Europe*. Athens: Metaichmio, pp. 60-70.

⁷ <http://www.eursc.eu> (accessed: 26/3/2015).

⁸ <http://kritis.pde.sch.gr/index.php/sep> (accessed: 26/3/2015).

⁹ Schola Europaea. Office of the Secretary-General. Pedagogical Development Unit (2009). *Integration of Pupils with special Needs into the European Schools* (Ref.: 2009-D-619-en-3).

The following tables show the statistical data on the number of SEN students relative to the total number of students enrolled in pre-school, primary and secondary education in each of the European Schools for the school years 2011-2012, 2012-2013 and 2013-2014. They also illustrate the number of SEN students per language field.

Table 1: Number and percentage of SEN students – development since the school year 2011/2012 up to 2013/2014¹⁰

School	SEN students Nursey & Primary			SEN students Secondary			Total students in the school			% SEN students		
	2011/ 2012	2012/ 2013	2013/ 2014	2011/ 2012	2012/ 2013	2013/ 2014	2011/ 2012	2012/ 2013	2013/ 2014	2011/ 2012	2012/ 2013	2013/ 2014
Alicante	3	3	10	7	7	7	1027	1052	1042	0,97	0,96	1,63
Bergen	1	1	4	0	1	1	581	556	565	0,17	0,36	0,88
Brussels I	41	37	46	44	50	69	3131	3040	3083	2,71	2,86	3,70
Brussels II	59	68	75	43	61	86	3176	3144	3078	3,21	4,10	5,23
Brussels III	70	68	67	46	48	30	2919	2892	2870	3,97	4,01	3,38
Brussels IV	26	28	31	4	9	10	1059	1530	1932	2,83	2,42	2,12
Culham	3	3	1	8	9	8	746	682	600	1,48	1,76	1,50
Frankfurt	7	7	7	6	8	11	1136	1191	1247	1,14	1,26	1,44
Karlsruhe	16	17	22	21	17	20	934	911	925	3,96	3,73	4,54
Luxemb. I	43	40	43	53	37	42	3579	2715	2786	2,68	2,84	3,05
Luxemb. II	18	16	23		36	48	957	1965	2101	1,88	2,66	3,38
Mol	2	2	1	4	1	2	767	744	738	0,78	0,40	0,41
Munich	36	37	42	47	56	59	1990	2063	2183	4,17	4,46	4,63
Varese	15	15	9	17	21	19	1636	1384	1397	2,34	2,60	2,00
Total	340	342	380	300	360	412	23367	23869	24547	2,74	2,94	3,23

Table 2. SEN students by language section during the period 2012-2014¹¹

Language section	SEN students		Total students		% SEN students	
	2012/2013	2013/2014	2012/2013	2013/2014	2012/2013	2013/2014
Bulgarian	0	1	16	20	0,00	5,00
Czech	6	8	171	213	3,51	3,76
Danish	15	18	505	490	2,97	3,27
German	121	132	4149	4201	2,92	3,14

10 Board of Governors of the European Schools (2013). *Statistics on the Integration of Pupils with special educational Needs into the European Schools in the Year 2013* (Meeting on 8-10 April in Sofia (Bulgaria) (Ref: 2014-01-D-17-en-3), p. 14.

11 Board of Governors of the European Schools (2013). *Statistics on the Integration of Pupils with special educational Needs into the European Schools in the Year 2013* (Meeting on 8-10 April in Sofia (Bulgaria) (Ref: 2014-01-D-17-en-3), p. 15.

Greek	16	18	665	700	2,41	2,57
English	203	207	4994	5088	4,06	4,07
Spanish	38	39	1551	1573	2,45	2,48
Finnish	32	36	550	537	5,82	6,70
French	145	185	6134	6453	2,36	2,87
Hungarian	7	9	228	242	3,07	3,72
Italian	45	48	1931	1977	2,33	2,43
Lithuanian	1	1	106	107	0,94	0,93
Dutch	44	52	1537	1538	2,86	3,38
Polish	4	6	351	403	1,14	1,49
Portuguese	11	14	457	445	2,41	3,15
Romanian		0		33		0,00
Swedish	14	20	524	527	2,67	3,80
Total	702	792	23869	24547	2,94	3,23

From the above statistical tables it can be seen that the number of SEN students in European schools during the review period (2011-2014) was not inconsiderable. So there was a need to create a new institutional framework for better integration into the European schools, with the aim, ideally, of inclusive education with students without SEN. This new institutional framework was discussed and approved by the Supreme Council for European schools on 2-4 December 2009 and entered into force one day later. In the new institutional framework, there was a clear basic distinction between students with learning difficulties (difficultés d'apprentissages, Lernschwierigkeiten) (Learning Support Students = LS-Students) and students with learning disabilities (troubles d'apprentissages, Lernbehinderungen) (Special Educational Needs Students = SEN-Students)¹².

For students with learning difficulties, learning support provisions are made. These learning difficulties are often mild, relatively short-term and psycho-cognitive in nature. At enrollment in kindergarten, parents/guardians are required to present any documentation of the child's specific needs or disabilities. A progress file is kept which follows the student through each subsequent educational level. Learning difficulties may be identified by the assessment of basic skills in preschool. In case of suspicion of any difficulty, a diagnosis process starts early, the importance of which is essential for early intervention¹³. In primary education, any learning difficulties are usually identified by the class teacher, as a result of the student's understanding of the work and the grades the student gains during the school year. If this is the case, then the student attends a learning support program. In secondary education, learning difficulties are

12 Schola Europaea. Office of the Secretary-General. Pedagogical Development Unit (2009). *Integration of Pupils with special Needs into the European Schools* (Ref.: 2009-D-619-en-3).

13 Papatheodorou, T. (2005), *Behaviour Problems in the Early Years. A Guide for Understanding and Support*. London & New York: Routledge Falmer.

usually also identified by teachers if a student presents difficulties in following the lessons and/or has knowledge gaps. Often these cognitive gaps in educational material can be overcome to a significant extent through targeted assistance. This usually includes differentiated teaching in the classroom initially and then, additional individualized learning support outside the classroom. Any assistance takes place with collaboration between teachers and parents/guardians. In all cases, the students follow the curriculum of general education studies.

Learning disabilities which are more severe and usually long-term are either inherent or acquired. They can be physical and/or mental disabilities, behavioral, emotional, relational, or psycho-social disorders. Obvious disorders are often diagnosed in kindergarten or earlier with the help of various specialized tests. In primary education, the integration of students with learning disabilities is considered easier than in secondary education, which usually requires a highly customized curriculum, accompanied by a description of the specific needs of the student with learning disabilities in each case. In addition, a certificate showing the student's progress is issued, which records their advance (or not) into the next school year and the skills they have acquired. For the treatment of learning disabilities, special assistance is required by professional, specialist staff and special treatments. These are recommended by a special consultative group and are clearly defined in the aforementioned initial agreement that takes place between the European school and the parents/guardians of each student with learning disabilities at the start of each school year. Each student is entitled to an individualized program of study according to their abilities and a special assessment. In this case, the student's progress is accompanied by a certificate of attendance at school, though this is not a final diploma. In addition to the assurance of an individualised in-school teaching programme, parents/guardians are required to take the child for any treatments they may need out of school¹⁴.

3. The pedagogical models of integration and inclusion: conceptualization, acceptance, doubts

The new institutional framework is fundamentally the integration of SEN students into European schools. It specifies integration as the possibility of these students being taught, with the appropriate support and help, in the mainstream class, if this supports their developmental needs. It is necessary that this integration process benefits all participants, both students with and without SEN. The former can participate as effectively as possible in the educational activities of the class, while the latter can, among other things, develop social skills, such as those of

¹⁴ Schola Europaea. Office of the Secretary-General. Pedagogical Development Unit (2009). *Integration of Pupils with special Needs into the European Schools* (Ref.: 2009-D-619-en-3).

acceptance and respect for diversity¹⁵. In this way, students without SEN develop a well rounded personality from sharing their life and learning with SEN students¹⁶. Moreover, integration is not an educational goal in itself but a means of achieving a broader social visionary goal of an inclusive society and even more, of a society of coexistence¹⁷.

This particular pedagogical, thus ideological approach to integration is the subject of particular academic debate. Views on the matters range from enthusiastic acceptance to complete disagreement. The pedagogical model of integration is a chronological development of the model of mainstreaming / incorporation. In the 1970s and 1980s, the practice was to take SEN students into the mainstream classroom on a part-time basis. This educational practice received particular criticism as it simply allowed students of the special class to attend the mainstream class, once “they had been assessed as capable of keeping up with the others, without SEN classmates”¹⁸. In addition, in the mainstream class, there were no educational adaptations which were necessary for a meaningful inclusion of SEN students and students without SEN. Rather, adaptations were made just for SEN students’ incorporation into the mainstream class¹⁹.

In each case, the superiority of inclusive education in relation to the previous limitations and exclusion of SEN students is highlighted²⁰. There were often positive results for integration practice in various European countries²¹. Additionally, there was a focus on a more general restructuring of education and a proposal to change the ways of evaluating and teaching SEN students. A broader climate of educational policy changes was promoted²².

However, the integration practice was applied fragmentarily and was

15 Downing, J. & Eichinger, J. (2008³), “Educating Students with Diverse Strengths and Needs Together: Rationale for Inclusion”. In: J. Downing (ed.), *Including Students with Severe and Multiple Disabilities in Typical Classrooms*. Baltimore: Paul Brookes Publishing, pp. 1-19.

16 Sehrbrock, P. (2004), “Integration and Inclusion: Two Sides of the same Coin?” In: A. Zionou-Sideri (ed.), *Modern Integration Approaches. Theory* (Vol. I). Athens: Greek Letters, pp. 87-104 (in Greek).

17 Barton, L. (2004), “The policy of Integration”. In: A. Zionou-Sideri (ed.), *Modern Integration Approaches. Theory* (Vol. I). Athens: Greek Letters, pp. 55-68 (in Greek).

18 Soulis, S. G. (2008), *A School for All. From Research to Practice. The Pedagogy of Integration* (Special Education, 3), (Vol. II). Athens: Gutenberg, p. 49 (in Greek).

19 Ainscow, M. (1997), “Organization of inclusive classrooms”. In: E. Tafa (ed.), *Inclusion of Children with and without Learning and Behavior Problems*. Athens: Greek Letters, pp. 25-54 (in Greek); Friend, M. & Bursuck, W. (2002³), *Including Students with Special Needs. A practical Guide for Classroom Teachers*. Boston, London et al.: Allyn and Bacon.

20 Corbett, J. & Norwich, B. (2005), “Common or specialized Pedagogy?” In: M. Nind, J. Rix, K. Sheehy, & K. Simmons (eds), *Curriculum and Pedagogy in Inclusive Education*. London & New York: Routledge Falmer, pp. 13-30.

21 Meister, H. (2004), “Basic pedagogical and curricular Integration”. In: A. Zionou-Sideri (ed.), *Modern Integration Approaches. Theory* (Vol. I). Athens: Greek Letters, pp. 69-85 (in Greek); Watkins, A. (2004), “Inclusive Education: Information on Policy and Practice in seventeen European Countries”. In: A. Zionou-Sideri (ed.), *Modern Integration Approaches. Theory* (Vol. I). Athens: Greek Letters, pp. 105-135 (in Greek).

22 Soulis, S. G. (2008), *A School for All. From Research to Practice. The Pedagogy of Integration* (Special Education, 3), (Vol. II). Athens: Gutenberg, p. 49 (in Greek).

therefore ineffective. It was observed, for example, that while SEN students were physically in the same space as the other students, nevertheless they remained often emotionally and socially isolated in it²³. Moreover, in the early 1990s a redefinition of special needs and their definition as special educational needs took place. A crucial ideological shift occurred. The perception of the failure of a student due to their disability was seen as nothing more than a social construction²⁴. Instead attention moved to the school's failure to respond to the different needs of the student population. It was assumed that students fail because the curricula applicable to each school failed to meet the basic conditions for the successful integration of these students. Thus, a new educational model began to be promoted, that of inclusion or inclusive education or non-excluding education, which took into account the needs and diversity of all²⁵. In practice, however, this model has had limited application, as there is an obvious gap between ideological will and everyday school reality: SEN students do not always fit seamlessly into a classroom of students without SEN²⁶. So in most cases, including the European schools, although the educational model of inclusion is ideologically promoted, the integration model is dominant. However, it is not always successful and this will be illustrated below.

4. Inegration and inclusion practices in European schools

For a more general overview of the needs of the student population of the European schools, students are divided into 6 groups:

- Group 1: Includes students who can follow the general curriculum without any difficulty.
- Group 2: Includes students with physical disabilities which do not affect the learning process.
- Group 3: Includes students with learning disabilities. These students can usually, with additional targeted assistance, attend the general class, at least in primary school. In secondary education, they receive tutorial support, including language support.
- Group 4: Includes students with learning disabilities which may be due to

23 Roll, D. (1997), "Have they all got Friends? Inclusion and social Integration". In: E. Tafa (ed.), *Inclusion of Children with and without Learning and Behavior Difficulties*. Athens: Greek Letters, pp. 180-213 (in Greek).

24 Davis, L. (1997), "Nude Venuses, Medusa's Body and Phantom Limbs. Disability and Visibility". In: M. David & S. Sharon (eds), *The Body and Physical Difference. Discourses on Disability*. Ann Arbor: The University of Michigan Press, pp. 9-28.

25 Soulis, S. G. (2002), *Pedagogy of Integration. From the School of Separation to the School for All*, (Special Education, 2) (vol. I). Athens: Typothito (in Greek); Zionou-Sideri, A. (2004), "The Need for Integration: Reflections and Perspectives". In: A. Zionou-Sideri (ed.), *Modern Intergration Approaches. Theory* (Vol. I). Athens: Greek Letters, pp. 29-53 (in Greek).

26 Rose, R. (2003), "Ideology, Reality and Pragmatics: towards an informed Policy for Inclusion". In: C. Tilstone, & R. Rose (eds), *Strategies to Promote Inclusive Practice*. London & New York: Routledge Falmer, pp. 7-17.

severe physical and/or mental disabilities and which necessitate a precise description at enrollment in school, or later, if they arise along the way. The integration of these students in school depends on the degree of their disability and the available resources of each European school. So that the school can meet the original agreement signed by parents/guardians at the beginning of each school year, qualified staff, expertise and funds need to be available. If the school does not have sufficient human resources and/or infrastructure to successfully integrate the student with learning disabilities, the educational community may find that it has no legal obligation to assume responsibility. At the same time, it will urge parents to seek an alternative education that is more appropriate and better meets the needs of their child.

- Group 5: Includes students with behavioral disorders, emotional and/or social disorders, which usually need special assistance. If, however, the problems might arise surpass the school's management capabilities (risk for other pupils and/or lack of experienced staff), then again the school may find that it has no legal obligation to assume responsibility.
- Group 6: Includes students who learn differently, especially those who perceive and understand more quickly than the rest of their classmates. In this case, it is possible that these students – with the consent of the head teacher and inspector – skip one year and go to the next year class.

In each case, the provision of learning support is a key part of the overall educational organization of the European schools. Especially effective for learning support is the collaboration between the head teacher, the class teacher and special support staff. What is considered absolutely essential is the formation of a larger school-based interdisciplinary advisory group for SEN students. This group consists of the head teacher, the deputy head, the in-school coordinator for the special education program, the class teacher and other teachers who teach the student, possibly the class co-ordinator, the counselor education, the school doctor, the school psychologist and other specialists as appropriate. The interdisciplinary advisory group may accept support from external experts (eg inspectors) to reach the goals on the student's **individual education plan**²⁷. Communication with parents is also essential for the earliest possible successful integration of the SEN student into school life²⁸.

Specifically, in the nursery during the first term, the teachers make a routine evaluation of the basic skills of their students. Here any difficulties that deserve special attention appear. In such a case, the class teacher informs

27 European Schools. Office of the Secretary-General. Pedagogical Development Unit (2012). *Policy on the Provision of Educational Support in the European Schools* (Ref.: 2012-05-D-14-en-7).

28 Kypriotakis, A. (1997), "School Integration: General Conditions and the special Role of Parents". In: E. Tafa (ed.), *Inclusion of Children with and without Learning and Behavior Difficulties*. Athens: Greek Letters, pp. 378-397 (in Greek).

the head teacher, the student's parents and, if necessary, requests the opinion of external experts. Through an in-school collaboration of experts, a joint evaluation of the assessments is made and an **individual education plan** for target achievement is made. In addition, tangible measures for differentiated instruction for the student in the classroom are established. Moreover, the specific duties of additional support teachers are determined and dates for the planned assessments are set and the desired results for the end of term are recorded. In this way, it is more feasible to monitor overall progress and improvement of a student's individual skills.

In primary school it is important to assess the individual skills of each student. The end of term grades may be the first indication of any knowledge gaps and weaknesses of those in need of support. A first step is targeted differentiated learning within the class (eg with additional explanatory material or additional explanatory exercises). Should this prove insufficient, an early childhood education procedure is enacted. An advisory group is established, consisting of the head teacher, the class teacher and the specialist support staff and an individual learning plan is created. Unlike in secondary education, in the primary school, language support is not provided as part of the learning support.

In secondary education, the teaching support is particularly flexible in meeting the needs of as many SEN students as possible, allowing them to gain access to the mainstream curriculum of the European schools. Learning support is provided mainly in the first to the fifth grade of secondary education and, in certain exceptional cases, to students who are newly enrolled, for example, in the last two grades, sixth and seventh. During secondary schooling, at the beginning of the first year, a methodology course is attended by all students, which is aimed at improving organizational skills. In D grade, students are required to attend a course through which they discover different learning methods in order to develop active learning strategies. In other words, they learn how to learn, thus cultivating appropriate metacognitive strategies in order to better manage their coursework²⁹. During secondary education, various learning support strategies are also provided with the most important being additional learning in small-groups.

If a student displays a learning disability, then the school offers an educational programme for special needs and the student has the same rights as the other students in the school. They have extra time during the exams in D, E and F class, as well as for the final exams of the European Baccalaureate, where additional specialized help in preparation, is also provided.

Given the increasing number of SEN students, European schools are using more pedagogical practices which make a major contribution to the

29 Davidson, J. E., Deuser, R., & Sternberg, R. J. (1994), "The Role of Metacognition in Problem Solving". In: J. Metcalfe & A. P. Shimamura (eds), *Metacognition: Knowing about Knowing*. Cambridge, MA: MIT, pp. 207-226.

integration and potential inclusion of SEN students. The following are examples of the practices which have been introduced. An educational adviser per linguistic field per class works with the SEN coordinator. Additional small learning support teams (Ratrapage Groupe) in different subjects for various classes and in different languages are available for students who need additional free educational aid after the completion of the daily educational the program. A specialist language support centre operates with multilingual teachers and sometimes an assistant teacher is funded by the European programme Comenius. An attendant teacher for parallel support of SEN students is provided in the classroom. Specialized individual instruction (One-to-one-teaching) is an option for anyone who needs it. A special space for personal privacy (Quiet Room) for certain times of the day is available, especially for students on the autistic spectrum.

5. Teachers' views on the education of students with SEN in European Schools

The findings below are based on field research and the collection of data during the school year 2010-2011. I worked as a special educator in the First European School Brussels where I carried out participant observation, made field notes, kept a detailed diary almost on a daily basis and made analyses of students' work. I also carried out 36 semi-structured interviews and open discussions with the school teachers of both general education and also additional teaching support. Some initial indicative views arise concerning the education of SEN students in European schools.

The vast majority of all teachers show great willingness to work in a school that promotes an inclusive education policy. This is especially so in the climate of safety offered by the multidisciplinary advisory group for special education available to every European school. Moreover, very satisfactory financial support is currently received by the European schools to meet the specific needs of their students.

They consider a general change in education policy on disability to be vital³⁰. In this way, more democratic schools would be created, which respect the obligation of all governments to provide every child, regardless of any particular characteristics, appropriate education for the all-round development of their personality. This is in accordance with Article 28 of the international Convention on the rights of the Child.

They are also aware of the crucial role played by themselves as teachers in the effective integration of SEN students or even in an inclusive classroom of students with and without SEN³¹. They often take advantage of small workgroups

30 Gabel, S. & Danforth, S. (2008), "Disability and the International Politics of Education". In: S. Gabel & S. Danforth (eds), *Disability & The Politics of Education. An International Reader*. New York, Washington et al.: Peter Lang, pp. 1-18.

31 Saleh, L. (1997), "The positive Role of Teachers in inclusive Education". In: E. Tafa (ed.), *Inclusion of Children with and without Learning and Behavior Difficulties*. Athens: Greek Letters, pp. 55-70 (in Greek).

during whole-class lessons³², applying teamwork and active learning practices. These help both the understanding of knowledge and the efficient cultivation of emotional intelligence and interpersonal social relations which are necessary conditions in any attempts at inclusive education.

Clearly weaknesses are apparent in European Schools. Their main purpose is mainly addressed to specific students, as initially mentioned, which by definition is excluding and thus can not be said to be “a school for all”. Also, this particular school, like all European Schools, fails to successfully include all students in the school community. In some “serious” cases, such as of one Polish student on the autism spectrum, the school relieved itself of duty, stating that it was unable to meet the student’s needs and referred the family to more special educational units. In any case it can be seen that the road to integration and more so to inclusion in “a school for all” is long and arduous.

Epilogue

The multilingual and multicultural European schools operate primarily to serve the needs of children of officials working in the EU institutions, thereby excluding the majority of children who do not fall into this category, except those who pay high tuition fees. They aim to use pedagogical practices of integration and inclusive practices in order to ensure better learning conditions for both students with and without SEN.

Collaboration between the head teacher, the class teacher, the special support staff, the student and parents/guardians is sought. A wider-school interdisciplinary advisory group for SEN students is established, which can accept support from external experts in order to meet the targets of the students’ individualized learning plans. An educational adviser per language field per class works with the SEN coordinator. There are additional small learning support teams and a special language center with multilingual teachers operates. An attendant teacher in the classroom for parallel support of students with SEN classroom is provided. The option of specialized individual instruction is available and a special space for personal privacy for all the pupils who need it for certain times of the day.

Receiving material and moral support, teachers are concerned to apply integrative and inclusive practices in their classrooms wherever possible, though not always fully successfully. This, however, highlights the value of their efforts so far and demonstrates the call for further research into the issues of educational methodology, teachers’ needs and continuous teacher training. Likewise, the development of empathy in the general student population and the

32 Lampidi, A. (2004), “Dynamics of human Relations: Teachers, Parents, Children. Dealing with Conflict Situations”. In: A. Zionou-Sideris (ed.), *Modern Integration Approaches. Act* (Vol. II). Athens: Greek Letters, pp. 33-43 (in Greek).

understanding that inclusive education through pluralism and diversity leads to holistic forms of reflective learning are matters awaiting further research.

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Models of art education in the twentieth century

Abstract

In Greece, since 1985, the development of art education and pupils' aesthetic understanding has been one of the five fundamental aims for secondary and primary education. The paper endeavors to understand issues related to the learning process into the framework of the different models of art education. The paper reviews the models of art education over the last hundred years in Europe and the United States of America. The outline of different models of art education provides an important background for analysing decisions about curriculum design and the related chosen methods of teaching and learning. It is hoped that the paper will offer ground for discussions and oppositions in the area of art education in Greece, in which area not much research has been undertaken. This will add to the development of art education in Greece.

Περίληψη

Στο ελληνικό εκπαιδευτικό σύστημα, η ανάπτυξη της καλλιτεχνικής εκπαίδευσης

αποτελεί, από το 1985, έναν από τους πέντε βασικούς στόχους της πρωτοβάθμιας και της δευτεροβάθμιας εκπαίδευσης. Το παρόν άρθρο επιχειρεί την παρουσίαση των έξι μοντέλων καλλιτεχνικής εκπαίδευσης που αναπτύχθηκαν τα τελευταία εκατό χρόνια στην Ευρώπη και τις Ηνωμένες Πολιτείες της Αμερικής. Στην παρουσίαση των έξι μοντέλων καλλιτεχνικής εκπαίδευσης θα αποτυπωθούν οι διαφορετικές θέσεις του κάθε μοντέλου σχετικά με τους στόχους του αναλυτικού προγράμματος, τη διαδικασία μάθησης και τις διδακτικές μεθόδους. Η παρουσίαση αυτή αποβλέπει στην καλύτερη κατανόηση αφενός των κυβερνητικών αποφάσεων σχετικά με τη καλλιτεχνική εκπαίδευση, και αφετέρου των αποφάσεων που λαμβάνονται από τους καθηγητές των εικαστικών τεχνών για τη διδασκαλία του μαθήματος.

Key words: Art Education, models of art education, modernism, cognitive learning.

1. Introduction

Various different models of art education arose in the twentieth century, which have impacted on art education in different ways. In describing models of art education, Efland¹ refers to “analytic devices used by students, a curriculum to map the organisation of ideas within a given educational setting.” A number of recent publications have attempted to highlight what are considered to be very important analytical devices used in art education. For example, according to Swift², curriculum and teaching are two key factors that make up the educational process. These factors (plus the methods for examination and inspection to which he also refers) unlock the “what” and “how” of the learning process. Both curriculum and teaching “link to ideas of how learning takes place”³ and can be viewed as the creation of forms of intervention that structure the learning process.

In this respect, Erickson⁴ argues that conceptions and practices of curriculum, teaching and learning reveal the following values:

- what is considered to be the purpose of art education
- what is thought to be the essential content of the art curriculum and
- how the instructional process should be designed and carried out in relation to promoting the first two values.

1 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p. 693.

2 Swift, J. (1999), Institutional art education: Curriculum, teacher and learner. *Journal of Art & Design Education*, 18 (1), p.p. 99-106.

3 Swift, J. (1999), Institutional art education: Curriculum, teacher and learner. *Journal of Art & Design Education*, 18 (1), p. 99.

4 Erickson, M. (2004), *Interaction of teachers and curriculum*. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 467-486.

In addition Erickson emphasizes the interaction of art curriculum and teacher. She characterizes the relationship between the art curriculum and the teacher as the major influence on the process of art education. Furthermore, the power relationship between learner and teacher has been identified by the literature to play a significant role in the learning process⁵. In this respect, Boughton⁶ thinks that students and teachers play an equal role, that of critical partners who develop their ideas, conveying all their personal experiences by sharing a wide range of texts and images from inside as well as outside the school.

Because the structure of the curriculum and the role of the teacher and learner are seen to be significant for art education by these authors, I will now attempt to put their perspective in a wider framework by reviewing different conceptions of the curriculum and related matters that have prevailed over the last hundred years.

2. Models of art education in the twentieth century

Throughout the twentieth century, art education was carried out under the general influence of modernism⁷. Modernism reflects a commitment to what are often conflicting foundational ideals that include self-expression, claims to objectivity, and the related view that art is constituted in a basic visual grammar, not to mention the need for art education to engage with social and cultural relevance. Modernism is also closely tied to dilemmas associated with advances in technology, and the increasing movement towards bureaucratic and environmental control. Modernity and modernism are concerned with forms of essentialism⁸ and “the discovery of absolute forms of knowledge”⁹. The modernist notion of aesthetics was broadly derived from the Kantian idea that argued for the separation of aesthetic experience from cognitive processes. Learning in art education, in the bosom of modernism, stresses its natural and organic mark. Learning is a product that comes from an activity isolated from its cultural context and is considered as an aptitude of mind.

Describing art education models before and after the cognitive revolution period, Cunliffe¹⁰ explains that the modernist paradigm “saw creativity and

5 Manke, M. P. (1997), *Classroom power relations: Understanding student-teacher interaction*. Mahwah, N. J.: Lawrence Erlbaum Associates.

6 Boughton, D. (2004), Assessing art learning in changing contexts: High stakes accountability, international standards, and changing conceptions of artistic development. In: M.D. Day & E. W. N. J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 585-605.

7 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p. p. 691-700.

8 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

9 Crotty, M. (1998), *The foundations of social research*. Thousand Oaks, CA: Sage, p.185.

10 Cunliffe, L. (1999), Learning how to learn, art education and the “background”. *Journal of Art and Design Education*, 18 (1), p.116.

learning as residing in the head of the subject rather than seeing individual minds in relationship to culture.” Learning in art education under modernism promoted forms of authority and individuality^{11,12} and inhibited forms of metacognition. The modernist curriculum stresses decontextualized features¹³, is “intended to be reproductive”¹⁴, and highlights the singular meaning in works of art¹⁵. Knowledge is “represented as stable”¹⁶.

The following is an outline of the various models of art education that emerged during the twentieth century in Europe and the United States of America^{17, 18, 19}. Each model is characterized by a different orientation towards curriculum, teaching and the learning process. The presentation of the models has been organized in terms of their historical emergence in Europe and the United States of America.

2.1. Art Education as Self-Expression

a. Idea

At the beginning of the twentieth century, a child-centred model of art education emerged that was opposed to academic art in favour of creative self-expression. This model views art education as a subjective escape from the academic curriculum. Art education as self-expression was derived from the expressionist theory of art and the romantic approach to learning that emerged in the nineteenth century, as found in Rousseau’s work, where the concept of freedom and nature rather than culture plays a key role. Rousseau’s vision for education is based on the idea of freeing the student’s imagination in order that they can express their feelings²⁰. The approach was further supported by the Freudian premise that “art is

11 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

12 Addison, N., & Burgess, L. (2004), *Learning to teach art and design in the secondary school*. New York: Routledge Falmer.

13 Gombrich, E.H. (2002), *Art & Illusion: A study in the psychology of pictorial representation*. London: Phaidon.

14 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press, p.108.

15 Cunliffe, L. (2010), Wittgenstein’s and Gombrich’s parallel therapeutic projects from modernity and art education. *British journal of philosophy of Education*.

16 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press, p.108.

17 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

18 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

19 Cunliffe, L. (2006), *PGCE art handbook*. Exeter, UK: University of Exeter.

20 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the

an expression of deep feeling in a sublimated symbolic form^{21,22}. This approach to art education played a very important and influential role in art education in Europe and the United States of America during the first half of the twentieth century. In the 1920s, a new impetus was given to self-expression in art education as a wider understanding of education process as a therapeutic process in the post-World War I era²³. Art education as self-expression gained widespread support from those who structured their pedagogy on the significance and value of free expression²⁴. Self-expression not only inspired the free expression movement in the 1920s, but went on to influence the creative aesthetic education movement in the 1950s and 1960s. This approach to art education was promoted by many prominent art educators, including Cizek in Vienna, Richardson in England, and Victor D'Amico and Lowenfeld in the United States of America²⁵.

b. Curriculum

In the model of Art Education as Self-Expression, drawing is considered a subjective process, a unique response of each child's inner life. Based on this view, the centre of interest is on pupils' feelings, expressions and imagination, which are nurtured by eliminating rules and other forms of discipline that might impinge on the child's natural creativity.

c. Learning process

Pupils' development is thought to be an innate ability. Expressiveness emerges as a feature that operates in isolation from social surroundings and educational interventions.

d. Teaching process

With this model, there is no reason to relate pupils' artwork to their social settings, or to relate their work with that of adults. The role of the teacher is to provide

NAEA, p.p. 691-700.

21 Efland, D.A. (1979), Conceptions of teaching in art education. *Art Education*, 32 (4): p. 22.

22 Addison, N., & Burgess, L. (2004), *Learning to teach art and design in the secondary school*. New York: Routledge Falmer.

23 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

24 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

25 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700

pupils with a sheltered but unmediated environment. The teacher's role is to prevent influence or intervention from others²⁶.

e. Criticisms

It could be argued that a rich repertoire of learning endpoints, including the cultivation of the imagination, may be a positive outcome of the self-expression model of art education. However, such an aspiration to develop the imagination requires being harnessed to a range of cognitive processes. This approach to artistic experience has tended to flounder unless there is a careful cultivation of such capacities. Another problem with this model is that art is centred on the originality of personal expression to the exclusion of understanding adult practices of art or having children reflect about their own art^{27, 28}. Understanding adult art requires more than practical activities, it also requires declarative knowledge²⁹.

2.2. Art education as Formalism and Basic Design

a. Idea

Formalism in aesthetics is an early twentieth-century development³⁰. It is an approach to art education that is derived from art criticism as developed by Clive Bell³¹. In art education, formalism illustrates the modernist ideal of rationality. The focus is on the analysis of physical and perceptual characteristics of art objects, as divorced from their wider socio-cultural meanings and practices. Formalism has dominated more recent approaches to art education in the United States of America³² and the United Kingdom³³. Efland³⁴ traces the emergence

26 Addison, N., & Burgess, L. (2004), *Learning to teach art and design in the secondary school*. New York: Routledge Falmer.

27 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

28 Dobbs, S. (2004), Discipline-based art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education* Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 701-724.

29 Cunliffe, L. (2005a), The problematic relationship between knowing how and knowing that in secondary education. *Oxford Review of Education*, 31 (4), p.p.547-556.

30 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

31 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

32 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

33 Cunliffe, L. (2005c), Art and Worldview: Escaping the Formalist Labyrinth. In: R. Hickman (Ed), *Critical Studies in Art and Design Education* Bristol, UK: Intellect, p.p.119-138.

34 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the

of formalism in art education in the United States of America to the pedagogy of Dow³⁵, who claimed that art, like science, has its own principles. He argued that pupils should learn such principles through a sequence of instructional exercises that are aimed at developing their ability to organize art in a formal way. In order to make this possible, teachers provided pupils with a simplified picture of what Cunliffe³⁶ described as visual art grammar.

b. Curriculum

As the name of this model of art education – Formalism and Basic Design – suggests, this approach teaches pupils the basic elements or principles for practical work. Learning focuses on the analysis of physical and perceptual characteristics of art objects and involves the reduction of form to elements (such as line, shape, and colour) and principles of design (such as rhythm, balance and unity)³⁷. The curriculum activities usually followed a sequential or stage-by-stage development³⁸. This type of curriculum focuses on a selection of particular activities designed to direct the pupil's interest to a single learning endpoint, which is the ability to represent the formal properties of art as reflected in examples from early modernism.

c. Teaching process

Artistic knowledge is realized only by representing formal characteristics. Teachers provide pupils with a simplified picture of what constitutes that which described as visual art grammar. In art education this grammar includes imitation, process-based instruction, ready-made formulae and closed procedures³⁹.

d. Learning process

This approach to learning overlaps with behaviourism and the ideas of logical positivism that came to dominate learning theories in the first half of the twentieth century⁴⁰. Behaviourism focuses on the environmental conditions that stimulate

NAEA, p.p. 691-700.

35 Dow, A. W. (1913), *Composition*. New York: Doubleday Doran.

36 Cunliffe, L. (2005b), Forms of knowledge in art education and the corollary of authenticity in the teaching and assessment of such forms of knowledge. *International Journal of Art and Design Education*, 25 (2), p.p. 199-208.

37 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

38 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

39 Vaos, A. (2000), *Visual art education in Greek education*. Athens: Ellinika Grammata.

40 Efland, D. A. (2002), *Art and cognition. Integrating the visual arts in the curriculum*. New York: Teachers College Press/ Reston, VA: NAEA

human responses. Watson⁴¹, Thorndike⁴² and Skinner^{43, 44} are the key theorists who promoted behaviourism. Pring⁴⁵ describes how learning in behaviourism is understood as a response that follows a stimulus, and that learning is developed through the establishment of general laws and conditions, which enable a predictable and desirable outcome through the establishment of principles of reinforcement and reward. With behaviourism, pupils depend on their teacher to pass on knowledge and give directions for learning, a process supported by negative and positive forms of reinforcement. Popper⁴⁶ described behaviourism as the bucket theory of the mind. A corollary is that the behaviourist approach to learning tends to play down diversity and ignore prior knowledge.

e. Criticisms

Freedman⁴⁷ argues that because the Formalism and Basic Design approach to art education understands artistic experience to be based solely on representing visual, formal relationships, it inhibits meaning and the development of understanding works of art in their social, cultural and historical settings. Therefore, learning in this model of art education is ahistorical, restricted and individualistic, and can be somewhat authoritarian⁴⁸. This model also fails to assist pupils to understand art's role in human history⁴⁹, and to address declarative knowledge in art education⁵⁰.

2.3. Art Education as Grounded in Daily Life

a. Idea

Another model of art education was based on understanding how art can enhance daily life. This model emerged in the United States of America, where it was dominant between 1930 and 1960, most notably during the Great Depression, which explains why it was predicated on enhancing daily life.

41 Watson, J. B. (1913), *Psychology as the behaviourist views it*. Psychological Review, 20, p.p.158-177.

42 Thorndike, E. L. (1905), *Elements of psychology*. New York: A. G. Seiler.

43 Skinner, B.F. (1938), *The behaviour of organisms: An experimental analysis*. New York: Appleton – Century

44 Skinner, B. F. (1974), *About behaviourism*. New York: Knopf.

45 Pring, R. (2000), *Philosophy of educational research*. London: Continuum.

46 Popper, K. R. (1972), *Objective knowledge: An evolutionary approach*. Oxford: Clarendon Press.

47 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

48 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

49 Dobbs, S. (2004), Discipline-based art education. In: M.D. Day &, E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education* Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 701-724.

50 Cunliffe, L. (2005a), The problematic relationship between knowing how and knowing that in secondary education. *Oxford Review of Education*, 31 (4), p.p.547-556.

b. Curriculum

By focusing on teaching art and design for the purpose of daily life in the community^{51, 52}, the idea was to understand art education as a means of realizing modest but important community goals. The model aimed at educating pupils to make artworks that were useful and practical for everyday life⁵³.

c. Learning process

The approach to learning in this model is derived from the behaviourist theory of learning. Artistic thinking was developed in connection to the immediate social context, so that art's value is its practical utility in daily life.

d. Teaching process

Imitation and process-based instruction are developed in order to produce a desirable, practical outcome, that is, one important for everyday life.

e. Criticisms

The types of activities devised in this model, because they were based on reduced, poor and simplified forms to meet a practical purpose, meant that art was valued only in terms of its utility in relation to daily life. Any concern for dealing with “esoteric experience” in art education is marginalized in this⁵⁴, and from this, it can be assumed that the experience of art in this model loses connection with various forms of transcendence.

2.4. Art Education as Engaging with Adult Disciplines

a. Idea

Discipline-based art education was a vision that emerged from research in cognitive psychology that was undertaken in the 1950s and 1960s, although

51 Winslow, L. (1939), *The intergrated school art program*. New York: Mr Graw – Hill.

52 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

53 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

54 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

in reality such reforms were only systematically worked out in art and design from the 1980s onwards⁵⁵. It was a part of the more general curriculum reform movement that was stimulated by the need to keep American education competitive during the Cold War.

Discipline-Based Art Education followed the idea that school art education should follow the path of adult practices or disciplines of art by combining the cognitive processes needed for making art with those needed for understanding art. The model was initiated by the idea that art education should reflect the disciplines of adult communities to include the practice of studio art and understanding art through engaging with the separate disciplines of art history, art criticism and aesthetics⁵⁶.

b. Curriculum

Under the DBAE model, pupils develop competencies in creating works (art production), describe, interpret, evaluate and theorize about works (art criticism), learn how to inquire into the historical, social and cultural contexts of specific art objects (art history), and raise and examine questions about the nature, meaning and value of art and what distinguishes it from other phenomena (aesthetics)^{57, 58}. These new components for art education require the development of multiple learning repertoires that challenge pupils' technical, aesthetic, social and personal forms of inquiry. In contrast to the views of self-expression and formalism, this model of art education considers art to be a forum for social and cultural inquiry and thinking that relates to historical and contemporary contexts. Hence, this form of curriculum aims to develop students' ability to formulate meanings by combining procedural and declarative knowledge^{59, 60}, and by establishing stronger associations between artistic experiences and socio-cultural contexts.

c. Teaching process

In Discipline Based Art Education, pupils are instructed through engaging in active learning. Teachers motivate pupils by focusing on the value of the artwork

55 Cunliffe, L. (1999), Learning how to learn, art education and the "background". *Journal of Art and Design Education*, 18 (1), p.p. 115-121.

56 Dobbs, S. (1992), The Kettering project: Memoir of a paradigm. In: P. Amburgy D. Soucy, M. A. Stankiewicz, B. Wilson, & M. Wilson (Eds.), *The history of art education: Proceedings from the Second Penn State Conference* Reston, VA: National Art Education Association, p.p. 186-190.

57 Tapajos, R. (2003), HIV/AIDS in the visual arts: applying discipline-based art education to medical humanities. *Medical Education*, 37 (6), p.p.563-570.

58 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

59 Ryle, G. (1949), *The concept of mind*. London: Hutchinson.

60 Cunliffe, L. (2005b), Forms of knowledge in art education and the corollary of authenticity in the teaching and assessment of such forms of knowledge. *International Journal of Art and Design Education*, 25 (2), p.p.199-208.

of adults, which act as exemplars and adds meaning to their own work. Referring to the discipline-based model, Short⁶¹ writes that studio experiences alone do not enhance students' ability to understand or appreciate well-known historical works of art. To facilitate this, she argues, the understanding of art should shift from one context to another, with the curriculum including critical activities of talking and writing about works of art.

d. Learning process

The approach to learning in this model is derived from cognitive learning theory. The core idea for cognitive learning is to focus on meaning making, which is radically different from the stimuli-response approach that underpins the behaviourist learning theory⁶². Foundational perspectives for the first phase of the cognitive revolution were Piaget's⁶³ research with the cognitive perspective of biological constructivism. Initially the cognitive revolution was focused on individual minds, but during its second phase this was eclipsed by Vygotsky's⁶⁴ social and historical psychology, the cognitive perspective of social constructivism that saw mind as distributed, so that learning becomes embedded in social and cultural settings, which act as the background to the development of learning^{65, 66}. The cognitive revolution and associated research programme undermine thinking of art education from dichotomous perspectives, such as form versus meaning, formalism versus context. The cognitive learning theory claims that making more connections establishes better learning, and thus enhances understanding of human experience⁶⁷.

e. Criticisms

Burton⁶⁸ thinks that Discipline-Based Art Education results in a form of art education that creates passive learning and conservative thinking. This is because it uses an instructional approach based on the "Western canon," which, he argues,

61 Short, G. (1995), Understanding domain knowledge for teaching: Higher-order thinking in pre-service art teacher specialists. *Studies in Art Education*, 39 (3), p.p.154-169.

62 Bruner, J. (1990), *Acts of meaning*. Cambridge, MA: Harvard University Press

63 Piaget, J. (1963), *The origins of intelligence in children*. Trans. M. Cook. New York: Norton.

64 Vygotsky, L.S. (1978), *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

65 Cunliffe, L. (1999), Learning how to learn, art education and the "background". *Journal of Art and Design Education*, 18 (1), p.p.115-121.

66 Harre, R. (2001), Norms in life: Problems in the representations of rules. In: D. Bakhurst, D. & S. G. Shanker (Eds.), *Jerome Bruner: Language, culture, self*. London: Sage, p.p. 150-166.

67 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

68 Burton, J. (2004), The practice of teaching in K-12 schools: Devices and desires. In: M.D. Day & E. W. N. J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 553-575.

limits individual creativity and expression. Even though a taste for the Western canon was implicitly cultivated in earlier approaches to art education, it was only at the end of the twentieth century that the preference for cultivating the Western canon became subject to criticism. Burton also argues that Discipline-Based Art Education puts forward a narrow conception of how adult disciplines actually operate. For example, Burton thinks Discipline-Based Art Education fails to acknowledge the role of power in influencing the way certain ideas become privileged over others, which is reflected in the way real adult disciplines engage in contesting ideas and practices. However, while taking note of these criticisms, what is also important to acknowledge is that Discipline-Based Art Education established a view of art education that attempted to balance procedural and declarative forms of knowledge⁶⁹.

2.5. Post-modern Art Education and Visual Culture

a. Idea

Post-modern art education is a critical and conceptual model of art education that emerged at the end of the twentieth century⁷⁰. It focuses on the idea of difference to include practices of art that have been considered of marginal significance in previous versions of art education. In doing so, both Discipline-Based Art Education and modernist approaches to art education were criticized as forms of elitism that sustained mono-cultural conformity, existing grand narratives and dominant sensibilities of modernism.

b. Curriculum

According to post-modern art education, curriculum is not a neutral enterprise as it deals with how knowledge is formed in relation to values, beliefs, the cultural environment and social structures⁷¹. The dominance of western fine art practices is challenged, so that the curriculum is open to multiple visual forms of creation beyond painting and sculpture to include computer graphics, advertising, folk art, television, environmental design and cartoons⁷². Such an approach is seen as an ethical stance against power in favour of an inclusive, pluralist paradigm for art education. However

69 Cunliffe, L. (2005a), The problematic relationship between knowing how and knowing that in secondary education. *Oxford Review of Education*, 31 (4), p.p. 547-556.

70 Efland, A., Freedman, K., & Stuhr, P. (1996), *Postmodern art education: An approach to curriculum*. Reston, VA: National Art Education Association.

71 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

72 Efland, A., Freedman, K., & Stuhr, P. (1996), *Postmodern art education: An approach to curriculum*. Reston, VA: National Art Education Association.

post-modern art education builds on the idea found in Discipline-Based Art Education that art education requires both procedural and declarative forms of knowledge.

Essential to the debate surrounding post-modern art education are issues of difference as understood within the context of race, social class, sex and cultural identity. The issues that pupils and art teachers must address include the formation of a cultural identity, the pluralistic meaning of visual information and narratives, and the critical awareness and reflection on the potential interdisciplinary nature of future education. Post-modern art education attempts to address the tension between tradition and innovation, conservatism and liberalism, popular culture and traditional art, with the latter no longer automatically favoured over the former as meaning is relative⁷³.

c. Learning process

Based on this model, knowledge is situated in a socio-cultural context, as developed by Vygotsky in the 1920s and 1930s⁷⁴. Vygotsky's social cognition has since become widely accepted^{75, 76, 77}. Learning involves pupils comprehending the world in a pluralistic way, in which the art room is considered a place where negotiations between teachers and their pupils occur.

d. Teaching process

The socio-cultural approach sees the pupil as an active, methodical and reflective learner, who is responsible for his or her own personal development. Cognitive learning theorists generally agree on the importance of prior knowledge in the construction of new knowledge^{78, 79, 80}. A corollary is that the teacher is sensitive to the pupils' background knowledge and experience^{81, 82, 83}. Pupils and teachers

73 Marriner, R. (1999), Postmodernism and art education: Some implications. *International Journal of Art & Design Education*, 18 (1), p.p.55-61, NSEAD.

74 Efland, D. A. (2002), *Art and cognition. Integrating the visual arts in the curriculum*. New York: Teachers College Press/ Reston, VA: NAEA.

75 Brown, J. S., Collins, A., & Duguid, P. (1989), Situated cognition and the culture of learning. *Educational Researcher*, 18, p.p. 32-42.

76 Bereiter, C. (1994), Constructivism, socioculturalism, and Popper's world 3. *Educational Researcher*, 23 (7), p.p. 21-23.

77 Cobb, P. (1994), Constructivism in mathematics and science education. *Educational Researcher*, 23 (7), 4.

78 Joyce, B., & Weil, M. (1986), *Models of teaching*. Englewood, N.J.: Prentice-Hall

79 Marzano, R. J. (1992), *A different kind of classroom: Teaching with dimensions of learning*. Alexandria, VA: Association for Curriculum and Supervision.

80 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press.

81 Joyce, B., & Weil, M. (1986), *Models of teaching*. Englewood, N.J.: Prentice-Hall

82 Marzano, R. J. (1992), *A different kind of classroom: Teaching with dimensions of learning*. Alexandria, VA: Association for Curriculum and Supervision.

83 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York:

form reciprocal relationships^{84, 85, 86}.

The post-modern art classroom is seen as a broadly based area of intellectual pursuit that includes the technical aspects of art (manipulation of materials and formal qualities) and the conceptual side of art (ideas, imagination, styles and so on). Language and other cultural forms are used as tools for advancing human development.

e. Criticisms

Critics claim that learning under the life world paradigm of education restricts the students to the cultural experiences in which they are already immersed⁸⁷ argues that this approach in post-modern art education leads to nihilism because it fails to identify a hierarchy of meaningful differences in practices of art.

2.6. Reconstructivist Art Education

a. Idea

The reconstructivist model of art education is critical of certain strands in both modern and post-modern art education. It identifies modernism as perpetuating a meta-narrative about self-expression and creativity being only concerned with experience. In contrast, post-modern art education develops the opposite point of view, that all narratives equally significant, which promotes leveling and nihilism at the expense of developing excellence within the pluralist notion of art education⁸⁸.

b. Curriculum

Reconstructive art education requires an approach to curriculum aimed at developing cognitive processes for both procedural and declarative forms of knowledge, so that a rich network of meanings can be mutually formed that allows students to navigate a variety of art and the related cultural practices. In contrast to the way post-modern art education privileges new technologies, re-constructivist art education favours autographic processes for developing understanding of practices of art based on such skills⁸⁹.

Teachers College Press.

84 Freire, P. (1985), *The politics of education: Culture, power and liberation*. Westport, CT: Bergin and Garvey.

85 Giroux, H.A. (1992), *Border Crossings*. New York, London: Routledge.

86 Addison, N., & Burgess, L. (2004), *Learning to teach art and design in the secondary school*. New York: Routledge Falmer.

87 Cunliffe, L. (2006), *PGCE art handbook*. Exeter, UK: University of Exeter.

88 Cunliffe, L. (2006), *PGCE art handbook*. Exeter, UK: University of Exeter.

89 Cunliffe, L. (2009), *PGCE art handbook*. Exeter, UK: University of Exeter.

c. Learning and teaching process

Knowledge is understood as situated in a socio-cultural context, but priority is given to nurturing meta-level thinking, so that pupils learn how to learn using both procedural and declarative forms of knowledge. Thus, pupils develop critical thinking and the ability to learn how to learn. Such an approach is supported by Addison and Burgess⁹⁰, who argue for the need to develop critical inquiry in art education, as the absence of such thinking can lead to misunderstanding, misrepresentation and misevaluation.

3. Conclusions

To conclude, broadly speaking, the twentieth century produced two phases in art education that are also reflected in Greek art education. Phase one involved self-expression and the autonomy of creativity. It also focused on formalism and basic design exercises aimed at developing an autonomous approach to art and aesthetic experience. Phase two emerged from the cognitive revolution, in which art is understood as the operation of mind in specific social and cultural settings. With the second phase, art education is valued because it engages complex forms of cognition such as the use of the imagination, the ability to give justified forms of interpretation, and other cognitive resources and strategies⁹¹ which not only illuminate learning through art but contribute in a wider way to understanding human beings and their potential.

Citation

Greek spoken

Vaos, A (2000), *Εικαστική αγωγή στην ελληνική εκπαίδευση*. Αθήνα: Ελληνικά Γράμματα.

International

Addison, N., & Burgess, L. (2004), *Learning to teach art and design in the secondary school*. New York: Routledge Falmer.

Bereiter, C. (1994), Constructivism, socioculturalism, and Popper's world 3. *Educational Researcher*, 23 (7), p.p. 21-23.

⁹⁰ Addison, N., & Burgess, L. (2004), *Learning to teach art and design in the secondary school*. New York: Routledge Falmer.

⁹¹ Cunliffe, L. (2008), Using assessment to nurture knowledge-rich creativity, *Innovations in Education and Teaching International*, 45 (3), p.p. 309-317.

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Table 1: Models of art education

Models of art education	Values:	Main focus:	Core idea & view of learner:	Core idea/view of teacher:	Criticism:
Self-expression:	Originality and authenticity	Self-expression and articulation of a pure un-contaminated Imagination	Active and inward process	Supporter	Potential for isolating individualism from social context
Formalism and basic design elements:	Mastery of basic visual grammar	Training of basic visual elements	Passive	Instructor	Potential for authoritarianism and over-simplistic
Daily life:	Art's utility for everyday life	Practical activities of art that serve everyday life	Pragmatic	Instructor	Potential to be non-spiritual and playing down the esoteric and ambiguous in art
Discipline based art education:	Nurturing expert performance as identified in adult disciplines	Art as making, art as understanding as modeled in adult disciplines	Active in which learner uses a variety of cognitive processes	Mediator of knowledge and insight based on adult disciplines	Potential for passive learning and authoritarianism
Post-modern art education:	Pluralism	Inclusive approach that prioritizes pupils' life world and the related life narrative and context	Active in which learner uses a variety of cognitive processes, already empowered to make decisions concerning artistic preferences due to being immersed in a life world	Critical and reflective; especially conscious of power relationships	Potential for nihilism
Reconstructivist art education:	Aspiration towards understanding art as a cultural practice	Good heuristics for deliberately building procedural and declarative knowledge for understanding how art operates in a variety of cultural contexts	Active in which learner uses a variety of cognitive processes that enable them to learn how to learn	Mediator of knowledge and insight; critical and reflective	Potential for elitism

Source: Cunliffe, 2006;⁹² Efland, 2004;⁹³ Freedman, 2003;⁹⁴ Tsimboukidou, 2014⁹⁵

92 Cunliffe, L. (2006), *PGCE art handbook*. Exeter, UK: University of Exeter.

93 Efland, D. A. (2004), Emerging visions of art education. In: M.D. Day & E.W.N.J. Eisner (Eds.), *Handbook of research and policy in art education*. Mahwah, N.J.: Lawrence Erlbaum Associates in conjunction with the NAEA, p.p. 691-700.

94 Freedman, K. (2003), *Teaching visual culture. Curriculum, aesthetics and the social life of art*. New York: Teachers College Press

95 Tsimboukidou, I. (2014), *Pupils' and teachers' perceptions of visual art education: A case study based on one of Greece's new secondary arts schools*. Athens: Arnaoutis.

Petridis Ioannis

Digital Games in Education and their Use in Medical Applications

Abstract

Learning through educational games along with applications in computer simulation is in the last decades, a form of training in different work fields. The field of health care uses teaching through games with virtual patients in order to educate doctors. Research on educational potential of video games covers a wide range of disciplines such as psychology, the development of military tactics, ethnography and technology. The field of simulation games which have been developed for iDevices also attracts a lot of interest. These applications will be analyzed in this paper.

1. Educational Games (Serious Games)

Educational or “serious games” are a rather modern phenomenon¹. During the last years, an increasing number of Serious Games seems to have had applications in

¹ Squire, K. (2005). Game based learning Present and future state of the field *Madison WI: University of Wisconsin-Madison Press*

various fields, such as health, education, communication, politics etc., while the way of classifying them and of using them constituted a subject of research for many years². The research on these particular games was particularly promoted by games industry³. According to definitions of serious games along with the wider definition of games, one can gather that serious games are activities that consist of participants, goals, rules and challenges in order to educate the player in specific skills⁴. Most games have victory as their objective. In most games, competition and objectives include one player to defeat another with the computer as their main opponent or, in many occasions, time⁵.

The control that the player has over the game is defined by the game's rules. The more adaptable the structure of the game, the highest the possibilities of actions on the players' part⁶. The option possibility refers to the options and decisions the player makes during the game. The players' options can be options of expression, strategy or tactic⁷. The options that affect the way in which the game is carried out constitute the strategy options. These particular options regard the players' abilities to change particular features of the game such as the difficulty level or the number of players. Achieving all the levels of the game puts the player in the learning process even through failure, which is a characteristic feature of serious games⁸.

1.1 The Role of Serious Games in Education

Every digital game, simulation game and virtual game includes the objective of learning even if it is limited in learning the use of the buttons for carrying the game out. While designing serious games, there is perfect harmonization between the objective of learning the game and indeed learning the game. Integrating educational content into a game doesn't guarantee either the achievement of the objective of entertainment or the formation of experiences or even the commercial success of the game⁹.

2 Djauti, D., Alvarez, J., Jessel J.P. Classifying Serious Games: the G/P/S model. http://www.ludoscience.com/files/ressources/classifying_serious_games.pdf (accessed on 9/3/2014)

3 Buttler, T. (1988). Games and simulations Creative education alternatives. *Tech Trends*, 33(4), 20-24

4 Martin, M. W., Shen Y. Defining and Leveraging Game Characteristics for Serious Games. <http://mike-martin.info/CharofSG.pdf>

5 Alessi, S. (2000). Designing Educational Support in System-Dynamics-Based Interactive Learning Environments. *Simulation and Gaming*, 31, 178. (accessed on 12/3/2014)

6 Mallone, T. W., Lepper, M.R. Making Learning Fun A taxonomy of intrinsic motivations for learning. *Ch. 10 in Snow and Farr Ed. Applitude Learning and instruction Vol 3 available at* <http://ocw.metu.edu.tr/mod/resource/view.php?id=1311>. (accessed on 1/3/2014)

7 Dickey, M. D. Engaging By Design: How Engagement Strategies in Popular Computer and Video Games Can Inform Instructional Desig. *ETR&D*, 53, 67-83.

8 Pitters, V. A. M., Vissers, G.A.N. (2004). A simple classification model for debriefing simulation games. *Simulation and Gaming*, 35, 70-84

9 Gunter, G. A., Kenny, R.F. Vick, E.H. (2008). Taking Educational Games Seriously: using the retain model

Developing serious games can be based on four levels in order for the learning objective to be achieved¹⁰.

Figure 1: The four levels of design and application of serious games, adapted by Hirumi & Stapleton (2009)¹¹

LEVEL IV (Course)	Unit 1				Unit 2	Unit 3
Level III (Unit)						
Level II (Lesson)						
Level I (Event)						

On the first level, designing the game is done in order to serve the purpose of a particular educational objective such as recalling an event or challenge to participate in a conversation. On the second level, the game can combine two or more elements of teaching. On this level, the game inserts a scenario in order to incite the interest of the students and to provide motives for a deeper comprehension of the subject being taught, which is achieved through a number of activities. All the activities and the facts that are necessary for achieving particular objectives of the game are involved on the third level, while on the fourth level the information of the three previous levels are applied through carrying out the game¹².

1.2 Areas of Application of Serious Games

Serious games are considered to be applied widely in the USA and especially in government and medical applications, while in recent years more and more fields adopt those particular games as a training tool. Today, serious games are used in various fields, and according to those, they are classified as military games, government, educational games, games for corporations, games that refer to the medical field and also as art games, religious and politics games¹³.

to design endogenous fantasy into stand alone educational games. *Educational Technology Research and Development*, 56, 511-537.

10 Driscoll, M. P. (2000). Psychology of learning for instruction. [http://ocw.metu.edu.tr/pluginfile.php/9013/mod_resource/content/1/driscoll-ch10%20\(1\).pdf](http://ocw.metu.edu.tr/pluginfile.php/9013/mod_resource/content/1/driscoll-ch10%20(1).pdf). (accessed on 12/5/2014)

11 Hirumi, A., Stapleton, C. (2009). Applying Pedagogy during Game Development to Enhance Game-Based Learning. Chapter 6 in *Games: Purpose And Potential In Education* available at: <http://hrast.pef.uni-lj.si/docs/research/Serious%20games/pedagogy%20and%20game%20develomn.pdf>. (accessed on 16/4/2014)

12 Hirumi, A., Stapleton, C. (2009). Applying Pedagogy during Game Development to Enhance Game-Based Learning. Chapter 6 in *Games: Purpose And Potential In Education* available at: <http://hrast.pef.uni-lj.si/docs/research/Serious%20games/pedagogy%20and%20game%20develomn.pdf> (accessed on 1/4/2014)

13 Susi, T. (2007). Serious Games – An Overview. *Technical Report HS- IKI -TR-07-001* available at: <http://>

In the military, the development of the technology of games allows the creation of simulations at low costs. Government games are considered to be able to exploit the possibility of learning in a wide range of applications and situations, such as handling various forms of financial crises, terrorism issues, epidemic diseases, health and well fare issues, moral issues and issues of siting in cities¹⁴. The advantage of simulations on a computer is that they allow the fast process of different scenarios while they can also process scenarios in different areas under the application of different parameters.

The applications of serious games in the field of health have been widely spread during the last years. The objective of serious games in the field of health is the direct or indirect physical or psychological impact on the individuals that participate in them¹⁵. Regarding the use of serious games in the medical field, it is proved that those games can significantly help patients to adjust their habits and to adopt a healthy lifestyle¹⁶. Moreover, serious games can be used as therapeutic tools in cases of long-term diseases by distracting the patient's attention from the pain or from painful therapies. The value of serious games in the medical field is further discussed below.

2. Applications of Serious Games in Medical Sciences

The applications of serious games in various fields of medicine are presented below and their contribution in this particular field of sciences is analyzed.

2.1 Virtual Reality and Medical Applications

Serious games combined with the applications of virtual reality constitute basic tools in the applications of medicine. Virtual reality applications in medicine significantly facilitate the medical personnel in the representation of medical data, which is particularly important, especially in surgery. Moreover, virtual reality constitutes a useful learning tool for interns, nurses and anyone involved in the field of health¹⁷.

Virtual reality in the field of medical sciences was first introduced in 1986 by Lamnier, who described virtual reality as a sum of technological devices.

his.diva-portal.org/smash/get/diva2:2416/FULLTEXT01. (accessed on 10/4/2014)

14 Squire, K., Jenkins, H. (2003). Harnessing the power of games in education. *Insight*, 3, 5-33.

15 Watters, C., Oore, S., Shepherd, M., Abouzied, A., Cox, A., Kellar, M., Kharrazi, H., Liu, F., Otley, A. (2006). Extending the use of games in health Care. *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06) Track 5* available at: <http://www.computer.org/csdl/proceedings/hicss/2006/2507/05/250750088b-abs.html>. (accessed on 3/5/2014)

16 Gudmundsen, J. (2006). Movement aims to get serious about games. http://usatoday30.usatoday.com/tech/gaming/2006-05-19-serious-games_x.htm. (accessed on 18/4/2014)

17 Watterworth, J. A. (1999). Virtual reality in medicine: A survey of the state and the art. <http://www8.informatik.umu.se/~jwworth/medpage.html>. (accessed on 5/5/2014)

The devices which introduce the technology of virtual reality are a computer, which must be able to support the three-dimensional interactive representation, a central monitor, and a pair of data gloves with one or more position sensors. The role of the sensor is to detect the position and the orientation of the user and to transfer this particular information to the computer, which updates the images that appear in real time¹⁸.

The environment of virtual reality is flexible and easy to program while it allows the therapist to present a wide range of controlled stimulating actions (e.g. fear) and to record the patient's reaction to these actions. The flexibility of virtual reality is used in order to enhance education in rehabilitation or generalizing learning in the real world¹⁹.

Virtual reality is characterized by the relation of the participant to the virtual environment and through this relation the integration in the environment constitutes a form of communication. Therefore, virtual reality can be considered as an expansion of the already existing means of communication such as television, computer and the telephone²⁰.

The systems that are based on virtual reality offer professional surgeons the opportunity of education in a wide range of skills and the possibility of repeating methods of practice. The application of medical and surgical methods of education and practice requires the exact representation and the realistic integration of the intern in the virtual scene in comparison to the exact data application to the anatomy of the patient. Furthermore, in the field of surgery acquiring special skills such as the absolute synchronization between sight and hands constitute points that encourage the use of virtual reality as an education tool²¹.

2.2 The Use of Serious Games for Education in Body's Anatomy

The recent development in the technology of the games has set the appropriate conditions for the approach of teaching anatomy through new methods, such as combining computer models of the anatomy of the human body with various operational programs. These new methods open up greater prospects in teaching anatomy, which the traditional methods cannot offer²².

18 Riva, G. (2003). Applications of Virtual Environment in Medicine. *Methods Inf Med*, 42, 524-534.

19 Riva, G. (1998). Virtual Reality as Assessment Tool in Psychology. *Virtual Reality in Neuro-Psychophysiology*, Giuseppe Riva (Ed) *Ios Press: Amsterdam, Netherlands*. available at:<http://realities.id.tue.nl/wp-content/uploads/2010/03/riva-1998.pdf> (accessed on 5/5/2014)

20 Jones, S. (1997). *Virtual Culture: Identity and Communication in Cybersociety*. SAGE, available at:http://www.google.gr/books?id=ieSYfJP3a4oC&dq=communication+through+virtual+technologies+Identity+Community+and+Technology+in+the+communication+age&lr=&hl=el&source=gs_navlinks_s (accessed on 1/4/2014)

21 Szukely, G., Satavana, R.M. (1999). Virtual reality in medicine. *BMJ*, 319, 1-4.

22 Patel, K. M., Moxham, B.J. (2008). The Relationships Between Learning Outcomes and Methods of Teaching Anatomy as Perceived by Professional Anatomists. *Clinical Anatomy*, 21, 182-189.

Serious games are used in teaching in the field of the anatomy of the human body in various forms (digital, not digital, role-playing game etc.) and are based on different learning theories (constructive and instructional theory)²³.

Many of the serious games that are used in medical sciences are based in the theory of constructivism according to which learning is more effective when the intern is actively involved in the learning procedure²⁴ and this particular procedure is embraced by many professors in order to enhance the responsibility and the independence of the students.

2.3 Applications of Serious Games in Surgery

During the last decades microsurgery has been set against the opposite side of open surgery, as a minimally invasive method, with smaller creation of trauma and reduced cause of pain but also as a method that allows a speedy recovery of the patients. The application of these particular methods of surgery requires a special development of skills and synchronization of sight and handling of surgical instruments²⁵. The advantage of virtual reality is that it can be repeated many times providing the opportunity of practice without putting the patient in danger.

2.3.1 Planning Surgeries According to Virtual Reality and Simulation

While the development of the technology and the evolution of medicine were taking place, the first applications of virtual reality simulators in surgical procedures began. The simulations in surgery cover a wide range of applications. In paramedical professions simulations are used for teaching skills that are useful in treating injuries, heart attacks and other emergencies. Simulations that are carried out on a monitor or on human models are utilized for the practice of anesthesiologists in handling unusual incidents that might occur such as hyperthermia, anaphylaxis and cardiac ischemia²⁶.

Virtual reality, as a surgery planning technique, forms a useful tool. Research in the representation procedure and the discretization of computed tomography (CT) and Magnetic Resonance Imaging (MRI) proves that three-

23 Kafai, Y. (2006). Playing and Making Games for Learning Instructionist and Constructionist Perspectives for Game Studies. *Games and Culture*, 1, 36-40.

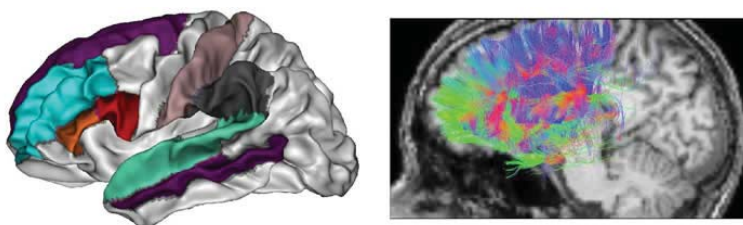
24 Arango, F., Aziz, E.S., Esche, S.K., Chassapis, C. (2008). A Review of Applications of Computer Games in Education and Training. *38th ASEE/IEEE Frontiers in Education Conference October 22 – 25, 2008, Saratoga Springs, NY*.

25 Heng, P. A., Cheng, C.Y. Wong, T.T., Xu, Y., Chui, P.Y., Chan, K.M., Tso, S.K. (2004). A virtual reality training system for knee arthroscopic surgery. *IEEE Transactions on Information Technology in Biomedicine*, 8, 217-227.

26 Gorman, P., Meier, A.H., Krummel, T.M. (1999). Simulation and virtual reality in surgical education. *Arch surg*, 134, 1203-1208

dimensional reconstruction of important anatomical components²⁷ is possible. Three-dimensional representation can be used to further comprehend the difficult anatomical anomalies that a patient might present before surgery. Also, it helps in the examination and appearance of the basic arteries branches²⁸.

Figure 2: Structural and functional simulation of the brain for the purposes of planning neurosurgical operation on children with epilepsy²⁹.



2.3.2 Serious Games as Tools in Endoscopy

Endoscopy or minimally invasive endoscopy as it is known, has an advantage over conventional surgery methods as it reduces the recovery time and the pain that the patient feels after a surgery³⁰. The main advantage of this particular method is that it does not require the patient to be “opened up” but the surgery is carried out with the help of externally controlled surgical instruments that enter the inside of the patient through small incisions. A small visual camera enters the patient allowing the magnetic resonance imaging of the area of interest and its representation on a computer monitor.

One of the known surgical practice systems in laparoscopy is Minimally Invasive Surgical Trainer-Virtual Reality, MIST VR. MIST VR objective is not to simulate the surgical procedure but to practice the psychomotor skills. The advantage of this particular simulator is that it has high speed with few intraoperative errors³¹.

27 Pommert, A., Riemer, M., Shiemmann, T., Schubert, R., Tiede, U., Karl, A., Hohne, H. (1996). Three dimensional imaging in medicine: Methods and applications. *Ch 9 in Computer Integrated Surgery: Technology and clinical applications* available at http://www.google.gr/books?id=0t3H8ker5u8C&dq=three+dimensional+imaging+in+medicine:methods+and+applications&lr=&hl=en&source=gbp_navlinks_s. (accessed on 1/4/2014)

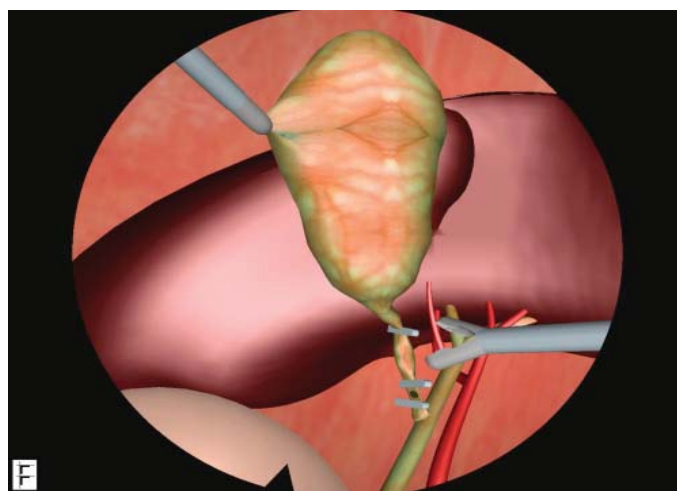
28 Koyama, T., Okudera, H., Gibbo, H., Kobayashi, S. (1999). Computer-generated microsurgical anatomy of the basilar artery bifurcation. *J Neurosurg*, 91, 145-152.

29 Polytechnique. (Montreal). MEDICAL IMAGING AND COMPUTATIONAL ANALYSIS LAB. <http://www.polymtl.ca/medical/en/recherche/index.php>. (accessed on 3/4/2014)

30 Meadows, M. (2002). Robots Lend a Helping Hand to Surgeons. *U.S. Food and Drug Administration, FDA Consumer magazine* available at http://permanent.access.gpo.gov/lps1609/www.fda.gov/fdac/features/2002/302_bots.html (accessed on 1/4/2014)

31 Gallagher, G. A., Ritter, E. M., Champion, H., Higgins, G., Frird, M.P., Moses, G., Smith, D, Satava, R.M. (2005). Virtual Reality Simulation for the Operating Room Proficiency-Based Training as a Paradigm Shift in Surgical Skills Training. *Annals of Surgery*, 241, 364-372.

Figure 3: Simulation image on MIST VR³²



Moreover, there are various simulators, such as VIST (Vascular Intervention System Training) that allow surgeons to practice in laparoscopy, while, at the same time, they provide the knowledge of the surgical procedure. VIST provides photorealistic representation of various organs that can be cut and stitched up.

2.3.3 Serious Games as Educational and Practice Means in Surgery

The most known serious games that are used in students' education are provided by the company EdHeads³³. All games from that particular company are free and they operate on a web browser so that it will not be necessary to install them on computers. In the surgery field, this particular company has developed three surgery games regarding hip replacement surgery, total hip replacement and brain surgery.

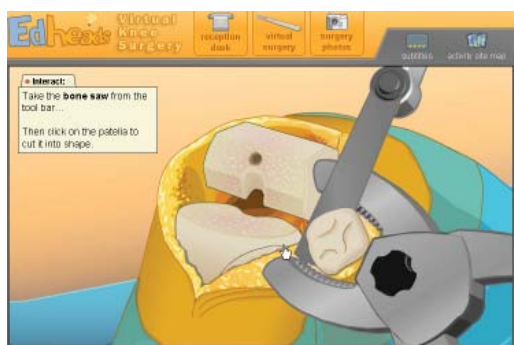
Surgery game by EdHeads is a game where every step is executed according to specific instructions regarding choosing the appropriate surgical instrument with the mouse, positioning it in the correct place and executing particular activities. This specific game is appropriate for the basic comprehension of the surgical procedure and the steps it includes. Yet it is considered to be lacking in the provided learning material³⁴.

32 Köhnapfel, U., Kuhn, Ch., Hóbnér, M., Krumm, H.-G., Maaí, H., Neisius, B. The Karlsruhe Endoscopic Surgery Trainer as an Example for Virtual Reality in Medical Education. <http://www-kismet.iai.fzk.de/KISMET/docs/UKMITAT.html> (accessed on 10/6/2014)

33 EdHeads. (2012). Virtual Knee Replacement Surgery. <http://www.edheads.org/activities/knee/index.shtml>. (accessed on 1/5/2014)

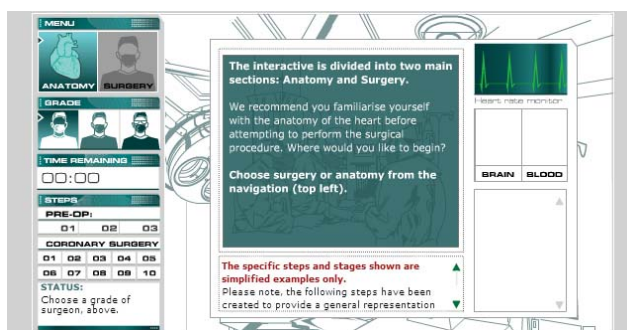
34 Health Articles. Edheads Virtual Knee Surgery Game – Learn How Knee Surgery Is Performed! <http://www.healtharticles101.com/edheads-virtual-knee-surgery-game-learn-how-knee-surgery-is-performed/>.

Figure 4: Image from the simulation lower leg surgery game by EdHeads



Another known serious surgery game comes from Australia and teaches players coronary bypass surgery³⁵.

Figure 5: Image from the educational game on coronary bypass game³⁶



This particular game evolves according to specific instructions and it is carried out by using the computer mouse. There are three levels of difficulty where the accuracy and the speed that is required from the players changes.

2.3.4 Serious Games Regarding Treating Cancer

One of the most common problems in medicine is that patients do not follow the therapy program correctly. It is also proved that adults and teenagers who have cancer fail to follow correctly the therapy programs and especially therapies that

(accessed on 10/4/2014)

35 The Australian Broadcasting Corporation. Life Changing Science - Program 2:Virtual Open Heart Surgery. <http://www.abc.net.au/science/lcs/heart.htm>. (accessed on 1/6/2014)

36 The Australian Broadcasting Corporation. Life Changing Science - Program 2:Virtual Open Heart Surgery. <http://www.abc.net.au/science/lcs/heart.htm>. (accessed on 13/5/2014)

must apply themselves such as chemotherapy by an oral drug intake³⁷.

Developing effective therapy protocols has accomplished, in the last two decades, to significantly decrease the death rate by cancer in adults although in teenagers no significant advantages by using them were noted. Serious games display many advantages as teaching tools regarding the effect of human behavior on health. Clinical studies consider games as indicators of the effective handling of the disease and the knowledge regarding it³⁸.

One of the serious games used by patients with cancer is Re-Mission. Re-Mission is a computer game where the patients are controlling a little robot, Roxxi, in a three dimensional environment inside the bodies of patients that were diagnosed with cancer at a young age. If players “fail” at some point in the game, they are given the opportunity to try again to achieve their objective. Every time players achieve an objective, they change level.

Figure 5: Image from Re-Mission³⁹



2.4 Rehabilitation Games

Serious games are used in motor rehabilitation for patients as therapeutic tools in motor problems due to strokes or injuries induced by accidents. The usefulness of serious games as an additional tool to rehabilitation therapies lies to their features such as repeatability, rewarding and providing motives.

37 Kennard, B. D., Kennard, S.M., Olvera, R., Bawdon, R.E., O'hailin, A., Lewis, C.P., Winick, N.J. (2004). Nonadherence in Adolescent Oncology Patients: Preliminary Data on Psychological Risk Factors and Relationships to Outcome. *Journal of Clinical Psychology in Medical Settings*, 11, 31-39.

38 Kato, P. M., Cole, S.W., Bradlyn, A.S., . (2008). A Video Game Improves Behavioral Outcomes in Adolescents and Young Adults With Cancer: A Randomized Trial. *Pediatrics*, 122, e305-e317.

39 ARCADEsushi.com. <http://arcadesushi.com/re-mission-2-helps-kids-take-the-fight-to-cancer/>. (accessed on 30/3/2014)

Repeatability is important for motor learning and the changes it induces, without yet being the only thing that contributes to motor learning. Repeating practice must be combined with the accomplishment of an objective. Regarding the main nervous system, it is achieved through trial and error method that results in response of the senses⁴⁰.

One of the most commercially successful games worldwide is Wii which uses the players' motions to control the progress of the game. Main character of the game is an avatar called Mii which represents the player. The motion is controlled by the Wii remote or the supplementary equipment. Up to four wireless remotes can be connected to the console providing the ability of a group game⁴¹. Wii console is accompanied by various motion games such as Wii Sports and Wii Fit. Another game that can be used as a rehabilitation game is EyeToy for Playstation 2, which varies from Wii as regards with the fact that it has a camera that allows motion detection and therefore control of the motions during the game. Kinect is a competitive to EyeToy game which also uses video technology and motion detection.

Figure 7: Image from EyeToy⁴²



These games have mainly entertaining character but when they are used by patients, they distract their attention from their difficulty in movement and they help them train in an entertaining way. The motion control system in Wii, EyeToy and Kinect allows the users to control the movements without having to “press” buttons on the remotes⁴³.

40 Rizzo, A. A., & Kim, G.J. (2005). A SWOT analysis of the field of VR rehabilitation and therapy. *Presence*, 18, 119-146

41 Nitendo. (2010). Consolidated financial highlights. <http://www.nintendo.co.jp/ir/pdf/2010/101028e.pdf>. (accessed on 1/4/2014)

42 giantbomo.com. <http://www.giantbomo.com/eyetoy-kinetic-combat/3030-22481/> (accessed on 4/5/2014)

43 Martin-Moreno J, R.-F. D., Soriano-Paya A, Jesus Berenguer-Murallas V. (2008). Monitoring 3D movements for the rehabilitation of joints in physiotherapy. *Conf Proc IEEE Eng Med Biol Soc*

2.4.1 Serious Games in Rehabilitation from Stroke

The rehabilitation of a patient that has had a stroke follows various stages. At first, upon the manifestation of stroke, rehabilitation is carried out at the hospital whereas during recovery it might be necessary to transfer the patient to a special rehabilitation center. During the last years, due to the developments in medical science, the rehabilitation of the patient in his own environment under the supervision of a professional has been made possible⁴⁴.

In literature it is mentioned that the use of technology shows important advantages when used as a therapeutic method on stroke patients. The development of a virtual environment also provides a safe and firmly structured training that can be adjusted to the interests and the special skills of the patient⁴⁵. An alternative choice is the development of video technologies that can also detect the motions of the patients. A well-known system that is used in this case is GestureTek IREX system where patients are either sitting or standing in front of a camera and a presentation software tries to detect the movement of their upper limbs⁴⁶.

2.4.2 Serious Games regarding AIDS (HIV) Prevention

Digital games are considered to be an effective way to channel information regarding HIV prevention to teenagers while it is considered that it might constitute a decision making tool regarding their behavior towards the problem. A proposed game related to the virus prevention is the one in Figure 8⁴⁷. According to this particular game the “player” can choose between two scenarios that are possible situations for a 16 year old boy. During the game the “player” is called to face the long term consequences of his actions.

Apart from intern students, educational serious games can also be used by professionals either individual (teachers, professors, doctors) or in companies. Serious games are a means of cultivating various skills for professionals the same way it is with interns. The skills that a professional can develop by using serious games are human resources management, handling skills regarding the equipment that is necessary for carrying out their work, communication skills and strategic skills.

44 Burdea, G. (2002). Key note address: Virtual rehabilitation—benefits and challenges. *1st Intl. Workshop on Virtual Reality Rehabilitation* available at http://www.ti.rutgers.edu/publications/papers/2002_vrmhr_burdea.pdf, 1-11. (accessed on 10/5/2014)

45 Rizzo, A. A., & Kim, G.J. (2005). A SWOT analysis of the field of VR rehabilitation and therapy. *Presence*, 18, 119-146.

46 GestureTek. (2008). <http://www.gesturetekhealth.com/>. (accessed on 1/4/2014)

47 Enah, C., Moneyham, L., Vance, D.E., Childs, D. (2013). Digital Gaming for HIV Prevention With Young Adolescents. *Journal of the Association of Nurses in AIDS Care*, 24, 71-80.

Figure 8: Digital game for a phone application that presents two different scenarios for a 16 year old man.



3. Learning Uses of Serious Games by Professionals

Serious games can be used in the training of professional doctors in specific departments but also for their comprehension regarding patients' behavior. For example, in a pediatric hospital the game "Time Out" can be used which is a serious game that educates little patients to coexist with diabetes. Time Out is a game very close to adventure games. While the player advances in the game, he must handle diabetes in order to avoid situations of hypoglycaemia and hyperglycaemia that might lead the player to the hospital and thus to the end of the game⁴⁸.

Figure 9: Scene from the game Time Out



Another field which constitutes a crucial area and it requires a specialized personnel is the field of emergency where the inter doctors are trained in a

48 SGA. <http://www.seriousgamesdirectory.com/proj/health-care-medical/?id=195> (accessed on 5/5/2014)

very wide range of incidents, from very simple to very complicated. In this particular game, students are educated to play different parts in a group and to measure their reactions and their ability to make the correct diagnoses under conditions of pressure⁴⁹.

Figure 10: On Call platform



By using serious games either in training medical students or in training professionals, a better education is provided to doctors in order for them to avoid medical errors. The biggest advantage in their use is that they give the possibility of continuous training at any time. Furthermore, the trained doctor or professional might commit medical errors without exposing the patient in danger contrary to training on a real patient. Also, no real surgeries are required for the education or training, that way dropping the cost.

One of the basic disadvantages of the use of serious games and virtual laboratories in educating doctors is that the computer cannot replace reality and it cannot predict every possible complication or situations that might occur.

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⁴⁹ Serious, Games, News. (2013). UMMS, MASSDIGI AND BECKER COLLEGE MEDICAL TRAINING GAME AWARDED BEST IN SHOW AT INTERNATIONAL COMPETITION. <http://www.seriousgamesnews.com/portfolio-view/umms-massdigi-and-becker-college-medical-training-game-awarded-best-in-show-at-international-competition/>. (accessed on 1/5/2014)

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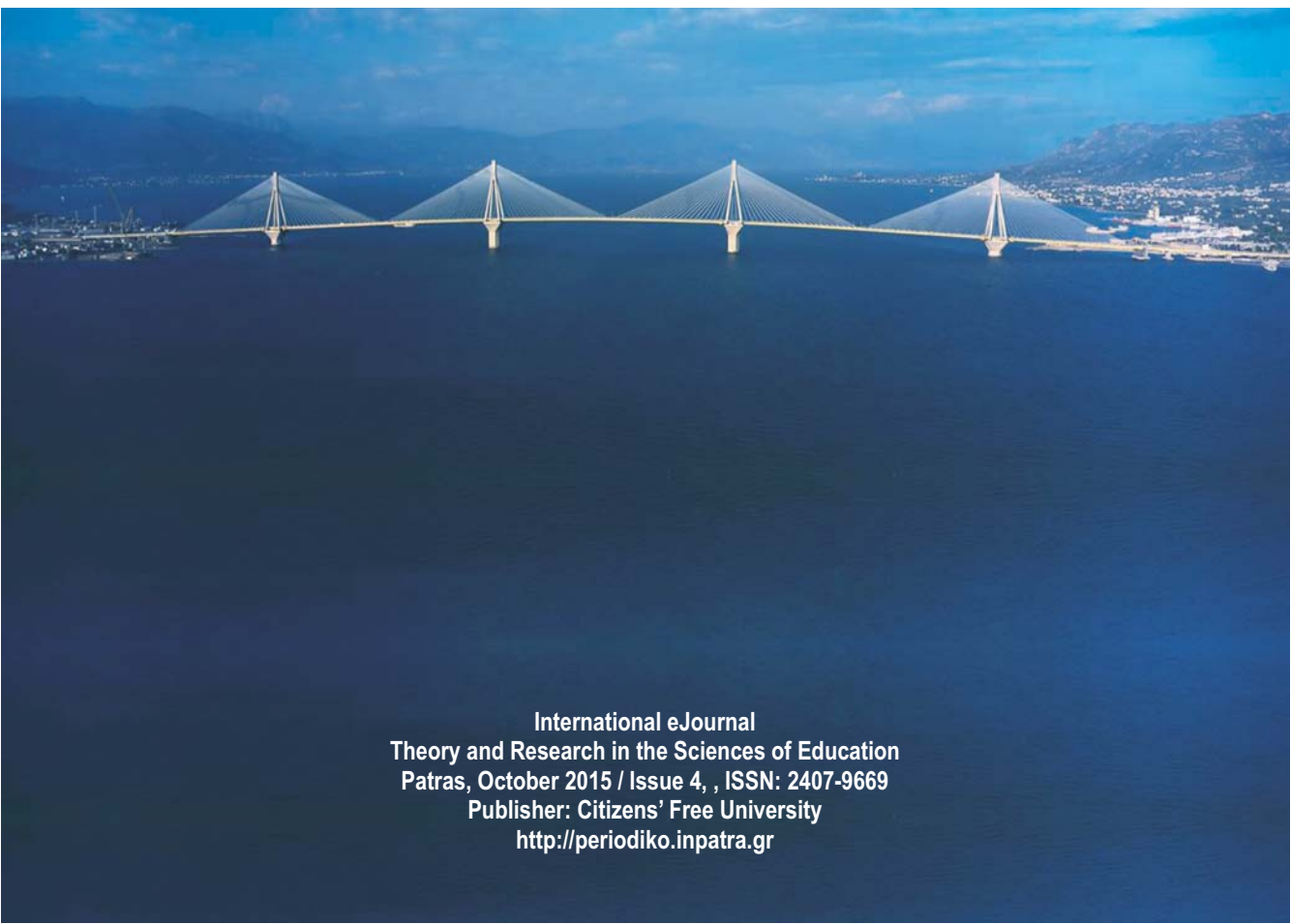
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