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# **New Trends in Research in Education, Philosophy and Communication /**

*Nuevas Tendencias  
en investigación en Educación,  
Filosofía y Comunicación*

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*New Trends in Research in Education, Philosophy and Communication /  
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## Foreword / Prólogo

### “There is much wisdom in them” (Ramon Llull). On the keys of a book of research and innovation

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As Ramon Llull (Majorca 1232 -1315) taught us in his *Llibre de Meravelles* (Book on Marvels), the marvel of knowledge, of the new and unknown is seductive and can bring us close to happiness –the main character who wanders through the world is called ‘Félix’, ‘Happy’. Felix followed the advice of his father; in *Book 8, ch. XI*, on the “Pleasure experienced by man from knowledge”, it says:

He wandered through forests, mountains, and plains, through the wilderness and villages, among princes and knights, in towns and cities, always marveling at the marvels or amazing things that occur in this world. And he asked about what he ignored and spoke about what he knew.

In the end, Félix falls ill and recovers in a monastery. There, he transmitted his knowledge to the monastic community. When death was imminent, he besought God that a substitute continue with his formative work in the world:

Every day Félix told examples and marvels to the abbot and the monks; and the abbot was delighted with them, as were all the monks, for they were words pleasing to the ear and there was much wisdom and learning in them, and men learned many things about this world and the other one.

[Félix besought God] grant me that, since I am failing, you bestow my job on someone more worthy than me; that he may accomplish what I cannot for lack of worth and because my life is coming to an end.

Nevertheless, to achieve knowledge, to find it, to create it, and to apply it is not something without difficulty. On the other hand, that difficulty does not detract from the fascination knowledge procures in the least. Rather, the opposite is true. As Plutarch said about Cn. Pompey, who during a famine was able to supply Rome with much needed grain. To do so, he had to sail in the midst of a storm at a moment when sailing was more necessary than preserving one’s life. Simply put, Rome’s survival depended on his embarking on a ship. Plutarch affirmed, «πλεῖν ἀνάγκη, ζῆν οὐκ ἀνάγκη», which has been translated into Latin as “Navigare necesse, vivere non est necesse”, that is, “Sailing is necessary, living is not” (Plutarch, Plutarco).

This book also sails and innovates in an ocean of knowledge through the many studies included in it that show their fascination with knowledge and their desire to communicate it to society with the goal of improving the latter.

## “Hay en ellas mucha sabiduría” (Ramon Llull). De las claves de un volumen sobre investigación e innovación

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Como nos enseñó Raimundo Lulio (Mallorca 1232 - 1315) en su *Llibre de Meravelles*, la maravilla del conocimiento, de lo nuevo e ignoto es seductora y nos puede acercar a la felicidad –su protagonista, que vaga por el mundo conocido entonces, se llama Félix, ‘feliz’–. Félix siguió el consejo o indicación de su padre y, en el *Libro 8, c. XI*, que trata sobre el “Placer que el ser humano experimenta por el conocimiento”, se narra:

“anduvo por bosques, montes y llanuras, por yermos y poblados, entre príncipes y caballeros, en villas y en ciudades maravillándose de las maravillas o cosas asombrosas que acontecen en este mundo. Y preguntaba lo que no entendía y hablaba de lo que sabía”

Al final, Félix enfermó y fue cuidado en un monasterio. Allí, él, transmitía sus conocimientos a la comunidad monástica. Ya a las puertas de la muerte, pidió a Dios, otro pudiera continuar su labor formativa por el mundo:

“Félix cada día contaba ejemplos y maravillas al abad y a los monjes; y el abad se deleitaba al oírlas y lo mismo hacían todos los monjes, pues son palabras placenteras de oír y hay en ellas mucha sabiduría y doctrina, y el hombre aprende muchas cosas de este mundo y del otro.

[Félix pidió a Dios] concédeme que ya que yo fallo en cumplir mi oficio, se lo des a otro que sea más digno que yo; y que él cumpla lo que a mí me falta en mérito y por acabarse mi vida.

Sin embargo, llegar al conocimiento, descubrirlo, generarlo, aplicarlo no es tarea que esté exenta de dificultad. Por otro lado, que sea difícil, no le resta ni un ápice de fascinación; antes bien al contrario. Como ya dijera Plutarco sobre Cneo Pompeyo, quien en tiempo de carestía en Roma, consiguió suministrar el grano que tan necesario le era a la urbe. Para ello, Pompeyo, tuvo de hacerse a la mar en plena tempestad. En aquél momento, navegar era más preciso que conservar la vida. De que se hiciera a la mar sin dilación, dependía nada menos que la subsistencia de Roma. Plutarco lo dijo en griego: «πλεῖν ἀνάγκη, ζῆν οὐκ ἀνάγκη:», que tradicionalmente se ha traducido en latín por “Navigare necesse, vivere non est necesse”, es decir, “Navegar es necesario, vivir no lo es” (Plutarch, Plutarco).

Podemos ver cómo este libro navega, innova en un verdadero océano de conocimiento. Este libro contiene estudios que manifiestan la fascinación por el saber, el interés de saber más y comunicarlo a la Sociedad, para que ésta mejore.

# 1. The Consequences of the Energy Crisis on Small and Medium Enterprises (SMEs)

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## ABSTRACT

The energy crisis, precipitated by a combination of geopolitical events, supply chain disruptions, and changing consumption patterns, has presented a profound challenge to the global economy. This paper delves deep into the repercussions of this crisis on Small and Medium Enterprises (SMEs), which play a pivotal role in most national economies. Through an in-depth analysis, the study reveals how escalating operational costs, disruptions in supply chains, and reduced productivity directly impact these enterprises. Additionally, indirect consequences such as financial strain, a shift in consumer behavior, and workforce challenges further compound the challenges faced by SMEs. Notably, amidst these adversities, the paper also highlights the resilience and adaptability exhibited by SMEs. Several case studies are presented to offer a real-world perspective on how businesses have either innovated or been setback due to the energy crunch. Conclusively, the study underscores the importance of agility and resilience in the face of global challenges and provides recommendations for both policy-makers and SMEs to navigate the intricacies of future energy crises.

**KEYWORDS:** Energy crisis, Small and Medium Enterprises, Geopolitical events, Supply chain disruptions, Consumption patterns.

## 1. INTRODUCTION

### 1.1. Definition of SMEs and Their Role in the Economy

Small and Medium Enterprises (SMEs) are typically defined by the number of employees, turnover, or a combination of both, and these criteria can vary by country. For instance, the European Union categorizes SMEs as enterprises that employ fewer than 250 persons and have an annual turnover not exceeding 50 million euro. Despite the variations in exact definitions, there's a universal agreement on the significant role SMEs play in the global economy.

SMEs are often dubbed the backbone of many economies, particularly in developing countries. They constitute a substantial majority of businesses worldwide and play a crucial role in job creation, contributing to over 65% of net new jobs in recent years. Beyond employment, SMEs foster innovation, drive competition, and contribute significantly to national incomes. Their flexibility allows them to adapt quickly to changing market demands, making them essential for economic resilience and diversification.

However, their size often renders them more vulnerable to economic shocks, such as the energy crisis, compared to larger enterprises. Understanding the intricate relationship between SMEs and their economic environment is pivotal to formulating policies that can ensure their sustained growth and stability.

## **1.2. Brief Overview of the Energy Crisis and Its Origins**

The term “energy crisis” refers to a situation where the demand for energy surpasses the available supply, often leading to soaring prices, energy rationing, and severe economic repercussions. These crises can stem from a multitude of factors, both natural and man-made.

Historically, several significant energy crises have jolted the global economy. The 1970s saw oil embargoes due to political tensions in the Middle East, leading to skyrocketing prices and widespread shortages. Fast forward to the 21st century, and the challenges have diversified. Natural disasters, geopolitical tensions, and infrastructure failures can disrupt the delicate balance of energy supply and demand.

But the origins of the current crisis are multifaceted. Accelerated by the global response to climate change, there’s been a substantial push towards renewable energy sources. While commendable, the rapid transition has sometimes outpaced the infrastructure and technology needed for a stable renewable energy supply. Additionally, underinvestment in traditional energy sources, driven by environmental concerns and economic downturns, has tightened the supply.

In essence, the energy crisis embodies a complex interplay of environmental, political, technological, and economic factors, each playing its part in the strained global energy landscape.

## **2. BACKGROUND**

### **2.1. A Short History of Energy Consumption Trends and the Challenges Faced**

Energy, the lifeblood of modern civilization, has witnessed transformative shifts in its consumption patterns over the last two centuries. These shifts reflect the evolution of our societies, technological progress, and our understanding of the environment.

#### ***2.1.1. The Pre-Industrial Era***

Before the Industrial Revolution, energy consumption was primarily organic. People relied on biomass sources like wood and muscle power from humans and animals. Energy use was limited, localized, and sustainable.

#### ***2.1.2. The Coal Revolution***

The late 18th and 19th centuries marked the rise of coal as the dominant energy source. The Industrial Revolution propelled coal to the forefront, fueling steam engines, factories, and later, electricity generation. This era witnessed the beginnings of large-scale energy consumption, establishing the foundations for modern industrial societies.

#### ***2.1.3. The Age of Oil and Gas***

The 20th century introduced oil and natural gas as dominant players. Their high energy density, ease of transport, and versatile applications, from powering vehicles to heating homes, made them indispensable. Post-World War II economic expansion, suburbanization, and the rise of automobile culture further entrenched oil’s role. However, this period also seeded the initial environmental concerns related to fossil fuel emissions and their impact on climate change.

### ***2.1.4. The Nuclear Option and Renewables Rise***

The latter half of the 20th century saw significant interest in nuclear energy as a potential solution to growing energy needs without the carbon emissions. However, concerns over nuclear safety, especially following incidents like Chernobyl and Fukushima, dampened its widespread adoption.

Meanwhile, the late 20th and early 21st centuries have heralded a move towards renewable energy sources like solar, wind, and hydroelectric power. Driven by concerns over climate change, depleting fossil fuels, and technological advancements, renewables have become the fastest-growing energy sector.

### ***2.1.5. Challenges Faced***

As our reliance on energy intensified, so did the challenges. Fossil fuel depletion, geopolitical tensions in oil-rich regions, and the environmental fallout from emissions have been persistent issues. The 1970s oil shocks underscored the vulnerabilities of global dependency on a few oil-exporting nations. The recent push for renewables, while environmentally commendable, has introduced its own set of challenges – intermittency issues, infrastructure development lag, and the transition from established fossil fuel industries.

In conclusion, the history of energy consumption is a testament to human adaptability, ingenuity, and the relentless pursuit of progress. Yet, it's also a story of the complexities and challenges that arise as societies evolve and priorities shift.

## **2.2. The Importance of Energy to SMEs**

For Small and Medium Enterprises (SMEs), energy is not just a utility; it's a vital component that dictates their operational viability and competitiveness. The significance of energy to SMEs can be elucidated through the following aspects:

1. **Operational Continuity:** Whether it's a manufacturing unit, a restaurant, or a tech startup, continuous power ensures uninterrupted business operations. Even brief outages can lead to substantial losses, from halted production lines to lost sales during peak hours.
2. **Cost Management:** Energy often constitutes a significant chunk of operational costs for SMEs. Fluctuations in energy prices can directly influence profit margins, especially since SMEs might lack the scale or capital to hedge against such volatilities effectively.
3. **Competitive Edge:** In sectors where timely delivery and service continuity are paramount, consistent energy supply gives SMEs a competitive advantage. It ensures they can meet client expectations and deadlines, essential for maintaining market share.
4. **Technological Reliance:** The digital age has heightened SMEs' reliance on technology. From point-of-sale systems to digital marketing and e-commerce platforms, all require energy. Any disruption can impede access to essential data, customer interactions, and online sales.

In essence, energy is the silent partner in SMEs' operations. Its availability and cost stability are foundational for these enterprises to thrive, innovate, and grow in an increasingly interconnected and competitive global marketplace.

### **3. DIRECT CONSEQUENCES**

#### **3.1. Increased Operational Costs**

The direct ramifications of an energy crisis on SMEs are manifold, with the escalation in operational costs sitting prominently at the forefront. This spike in costs is intertwined with the rising energy prices, impacting both production and service delivery in profound ways.

**The Surge in Energy Prices:** The very essence of an energy crisis means that the price of energy, whether it be electricity, gas, or other fuels, undergoes a sharp upward trajectory. For SMEs, which often operate on tighter margins compared to large corporations, this uptick can be especially burdensome. Unlike multinational companies, SMEs might not have the luxury of diversifying their energy sources across various geographies or hedging against price volatilities. Thus, even a modest rise in energy prices can significantly erode their profitability.

**b. Impact on Production:** For SMEs engaged in manufacturing or production, energy serves as a bedrock. Increased energy costs can lead to higher production costs. This could force businesses to make challenging decisions, like reducing production volume, delaying expansion plans, or even passing on the extra costs to consumers, risking competitiveness.

**c. Impediments in Service Delivery:** For service-oriented SMEs, energy plays a pivotal role in ensuring uninterrupted service delivery. Be it a cafe needing power for its coffee machines and refrigerators, or a digital agency requiring a constant internet connection, rising energy costs can compromise service quality. This could manifest in reduced operational hours, scaled-back services, or even downtime, leading to potential revenue losses and tarnished business reputation.

In summation, the direct financial strain induced by soaring energy prices can have cascading effects on the operations and strategies of SMEs, threatening their sustainability and market position.

#### **3.2. Disruption in Supply Chains**

The ripple effect of an energy crisis extends beyond just operational costs; it deeply penetrates the intricate webs of supply chains, especially for SMEs that may lack the cushion of vast inventory reserves or diversified supplier networks.

**a. Challenges in Logistics:** Energy, in various forms, powers the entire logistical framework that underpins global trade. An energy crisis can create bottlenecks in the smooth flow of goods. Ports might experience slowdowns due to reduced operational hours or fuel shortages. Warehouses could face challenges in managing inventories if they rely on energy-intensive systems. Moreover, logistics companies might ration their services in response to rising fuel prices, leading to delayed shipments or increased lead times. For SMEs, which often operate on a just-in-time inventory model to reduce holding costs, such disruptions can lead to stockouts or production halts.

**b. Increased Costs and Unreliability in Transportation:** Transportation is a primary pillar of supply chain management and one that's heavily reliant on energy. Rising fuel prices directly translate to increased transportation costs. Whether it's by air, sea, or land, freight costs can surge, compelling SMEs to reconsider pricing strategies or absorb the additional expenses. Moreover, energy shortages can lead to unpredictable transportation schedules. Trucks might be grounded due to fuel unavailability, or ships might be anchored awaiting bunker fuel. For SMEs, this unreliability can be particularly detrimental. They might face penalties for missed delivery windows, strained relationships with clients due to inconsistent service, or lost sales from stockouts.



To encapsulate, the ramifications of an energy crisis on supply chains are profound, introducing layers of complexity and unpredictability. For SMEs, which often lack the resources or flexibility of larger counterparts to navigate these disruptions, the impact can be disproportionately severe, compromising their ability to serve customers effectively and maintain a competitive edge.

### **3.3. Reduced Productivity**

In a business landscape characterized by rapid digital transformation and a relentless pursuit of efficiency, the role of consistent energy supply cannot be overstated. An energy crisis can drastically compromise the productivity levels of SMEs, leading to repercussions that can stymie growth and destabilize business continuity.

- a. **Energy Shortages and Working Hours:** One of the more immediate fallouts of an energy crisis is the reduced availability of energy. For SMEs, this can translate to truncated working hours, either due to voluntary cutbacks to save on energy costs or compelled by external rationing. A factory might operate fewer shifts, a store might curtail its opening hours, or an IT firm might have its employees work in staggered schedules to cope with intermittent power availability. These reduced hours equate to diminished output, directly hitting the bottom line.
- b. **The Impact of Blackouts and Brownouts:** Blackouts (complete loss of power) and brownouts (reduction in voltage or intermittent supply) can be particularly debilitating. Apart from halting operations, they can damage equipment, lead to data losses, and erode consumer confidence. Consider a scenario where an SME involved in precision manufacturing experiences a sudden blackout. The immediate production batch could be rendered defective, leading to financial losses and potential reputational damage. Similarly, for service sectors, a brownout could mean disrupted online transactions, hampered client interactions, or even potential data breaches if backup systems don't kick in timely.

Moreover, frequent blackouts and brownouts can have a psychological impact on the workforce, leading to diminished morale, increased stress, and a pervasive sense of instability.

In essence, while an energy crisis might be external to an SME's operational domain, its cascading effects on productivity are felt internally, challenging the very tenets of efficiency, growth, and service excellence that SMEs ardently strive for.

### **3.4. Indirect Consequences**

The ramifications of an energy crisis, while immediately felt in operational domains, also seep into the financial underpinnings of SMEs. One of the often overlooked, but critical, indirect consequences revolves around the financial health of these businesses and their ensuing ability to access financing.

#### **3.4.1. Financial Strain on SMEs**

- a. **Rising operational costs, disrupted supply chains, and reduced productivity,** as discussed earlier, coalesce to strain the financial health of SMEs. Reduced profitability can lead to cash flow challenges. SMEs might find themselves grappling with a squeeze between rising expenses and stagnant or even declining revenues. In such an environment, many enterprises may seek external financing to bridge the gap, be it for maintaining operations, investing in energy-efficient technologies, or covering short-term liabilities.



- b. **Challenging Loan Environment:** An energy crisis can engender a broader economic downturn or uncertainty, making financial institutions more risk-averse. SMEs, already perceived as riskier bets compared to larger corporations, might find the lending environment increasingly hostile. Banks and other financial institutions may tighten lending criteria, demand higher collateral, or increase interest rates for SMEs.
- c. **Impact on Credit Ratings and Borrowing Capacities:** Consistent energy disruptions can erode an SME's ability to meet its financial obligations timely, whether it's paying suppliers, settling short-term debts, or even managing payroll. Such challenges can lead to late payments or defaults, thereby adversely impacting their credit ratings. A tarnished credit rating further diminishes an SME's borrowing capacity, creating a vicious cycle of constrained financial access just when they need it most.

To encapsulate, while the operational impacts of an energy crisis are evident, the subtler financial repercussions can be equally, if not more, debilitating for SMEs. Their ability to weather the storm and access critical financing becomes a linchpin for survival and eventual recovery.

### **3.4.2. Shift in Consumer Behavior**

Every crisis, while posing challenges, also acts as a catalyst for change. An energy crisis, with its widespread implications, is no exception. It nudges consumers to re-evaluate their consumption habits, preferences, and loyalties. This transformation in consumer behavior, while indirect, has substantial ramifications for SMEs.

- a. **Growing Energy-Consciousness Among Consumers:** As energy prices soar and its conservation becomes a talking point, consumers invariably become more energy-conscious. They start valuing products and services that echo their own beliefs and concerns. For instance, a consumer might opt for a product with a smaller carbon footprint or prefer services from companies that demonstrate a commitment to sustainable energy usage. SMEs that have not factored in this changing consumer sentiment might find themselves at a disadvantage, losing out to competitors who have adapted more proactively.
- b. **Changing Demand Dynamics:** An energy crisis can shift demand patterns. Products or services deemed as "luxuries" or non-essential might experience reduced demand as consumers tighten their belts in response to broader economic uncertainties brought about by the crisis. Conversely, products that offer energy savings or are marketed with an emphasis on sustainability might see a spike in demand. For SMEs, understanding these shifting sands of consumer demand becomes vital. Those that can pivot, adapt, or even preempt these changes stand to benefit, while others risk obsolescence.
- c. **Emergence of Alternative, Energy-Efficient Offerings:** As consumer preferences evolve, the market invariably responds with innovations. The energy crisis can spur the rise of alternative products and services that cater to the newfound energy-consciousness. This could range from energy-efficient appliances to services that optimize energy consumption in homes and businesses. SMEs that can innovate and position themselves in this burgeoning space can carve out a niche, while also contributing positively to addressing the larger energy challenge.
- d. **Brand Loyalty and Ethical Consumption:** The narrative around energy and sustainability is deeply interwoven with ethics and responsibility. Consumers, especially the younger demographic, value brands that resonate with their ethical standpoint. SMEs that transparently com-

municate their energy-saving initiatives, sustainability goals, and ethical practices can foster deeper brand loyalty. This not only aids in customer retention but also attracts a new segment of ethically-minded consumers.

In summation, the energy crisis, while disruptive, also offers SMEs an opportunity. It's a chance to introspect, innovate, and align with the evolving consumer psyche. Those SMEs that can read the pulse of this shift, and adapt accordingly, will not just survive the crisis but potentially thrive in the post-crisis landscape.

### **3.5. Workforce Challenges**

SMEs are not just business entities; they are also vital employers, providing livelihoods to a significant portion of the workforce. The energy crisis, in affecting the operational and financial aspects of these enterprises, invariably spills over to the realm of human resources. The challenges SMEs face in this domain can be multi-pronged and deeply impactful.

- a. **Layoffs Stemming from Reduced Operations:** As energy prices escalate and shortages become rampant, many SMEs may find it hard to maintain their usual operational tempo. For manufacturing entities, this could mean running fewer shifts, while service-oriented businesses might reduce service hours. Such operational cutbacks often lead to an unpleasant but sometimes necessary decision: layoffs. Reducing the workforce can provide immediate financial relief, but it comes with long-term repercussions. Layoffs can dampen morale among remaining employees, disrupt operational continuity, and tarnish the business's reputation in the job market.
- b. **Challenges in Recruitment:** An unstable operating environment, characterized by frequent disruptions and uncertain future prospects, can make recruitment a daunting task. Top talent is invariably attracted to stability and growth potential. SMEs, already competing with larger corporations for skilled personnel, might find this competition intensifying during an energy crisis. Their value proposition as employers can be compromised, leading to difficulties in attracting the requisite talent to navigate through and out of the crisis.
- c. **Retention Hurdles in an Uncertain Landscape:** Retaining existing employees can be as challenging as recruiting new ones. The specter of layoffs, reduced working hours, potential pay cuts, or even the existential threat to the business can erode employee confidence. Loyalty can waver when faced with such uncertainties, leading to higher attrition rates. Losing experienced and skilled employees can further exacerbate the challenges SMEs face, creating a feedback loop of declining operational efficiency and increasing workforce instability.
- d. **Psychological and Motivational Impact:** Beyond the tangible challenges, the energy crisis can cast a pall of gloom over the workforce. The constant stress of potential disruptions, the knowledge of the business's precarious financial health, and the broader economic downturn can impact employee motivation, well-being, and productivity. Addressing these psychological aspects becomes paramount for

SMEs, as they rely heavily on a motivated and cohesive team to weather the storm.

In essence, the human dimension of the energy crisis is profound. While immediate operational and financial challenges might take precedence, SMEs must recognize and address the undercurrents of workforce instability and discontent to ensure long-term resilience and recovery.

## 4. ADAPTIVE STRATEGIES EMPLOYED BY SMES

In the face of adversity, innovation and adaptation become the beacons of survival and growth. SMEs, with their innate flexibility and agility, are often at the forefront of such adaptations. In the backdrop of the energy crisis, several adaptive strategies emerge as SMEs strive to mitigate its impact.

### 3.1. Energy Efficiency Measures

One of the most immediate and tangible responses to the energy crisis is the shift towards energy efficiency. This not only helps in reducing operational costs but also aligns with the growing global emphasis on sustainability.

- i. **Investing in Energy-Efficient Equipment and Technology:** Many SMEs have recognized the long-term value of transitioning to energy-efficient equipment. For manufacturers, this might mean retrofitting machines with energy-saving components or replacing outdated equipment with newer, more efficient models. Retailers might consider energy-efficient lighting or HVAC systems. For businesses heavily reliant on IT infrastructure, transitioning to energy-efficient servers or adopting cloud solutions can drastically cut down energy consumption. While the initial investment might be substantial, the long-term energy savings and potential tax incentives or rebates can offset these costs.
- ii. **Behavioral Changes to Conserve Energy:** Beyond technology and equipment, SMEs are also fostering a culture of energy consciousness among their employees. Simple behavioral changes can cumulatively result in significant energy savings. Encouraging employees to switch off lights, computers, and other equipment when not in use, maintaining optimal thermostat settings, or even optimizing work schedules to leverage natural daylight can make a difference. Some SMEs conduct energy audits to identify wasteful practices and then educate their workforce on best practices.
- iii. **Monitoring and Feedback Systems:** Incorporating energy monitoring systems can provide SMEs with real-time data on their energy consumption patterns. These systems can help in identifying inefficiencies, allowing businesses to make informed decisions. Feedback loops, where employees are regularly updated on energy-saving achievements and areas of improvement, can instill a sense of collective responsibility and motivation.
- iv. **Exploring Renewable Energy Options:** Some forward-thinking SMEs are exploring on-site renewable energy solutions like solar panels or wind turbines. While the feasibility depends on various factors, including location, business type, and financial capacity, such ventures can provide SMEs with a degree of energy independence, hedging against future energy crises.

In conclusion, the energy crisis, while posing significant challenges, also offers SMEs a unique opportunity to introspect, innovate, and adapt. By embracing energy efficiency and fostering a culture of sustainability, SMEs can not only navigate the immediate challenges but also position themselves favorably for the future.

### 3.2. Diversifying Supply Chains

One of the key lessons from any crisis, including an energy one, is the vulnerability inherent in over-reliance. In the context of SMEs, this vulnerability often manifests in supply chains. Long, intricate, and singularly-focused supply chains can amplify the disruptions caused by an energy crisis. As a response, many SMEs are turning towards diversification as a strategic solution.

- i. **Exploring Local Suppliers:** Globalization has often led businesses to source products or components from distant lands, lured by cost advantages. However, an energy crisis, which impacts transportation costs and reliability, can erode these advantages. SMEs are increasingly revisiting the potential of local suppliers. Sourcing locally not only mitigates the transportation challenges but also reduces lead times, allowing SMEs to be more agile in their operations. Additionally, supporting local businesses can resonate positively with consumers who are becoming more community-conscious.
- ii. **Broadening Supplier Base:** Relying on a singular or limited set of suppliers can be a risky proposition during energy disruptions. SMEs are broadening their supplier base, ensuring they have multiple sources for critical components or products. This redundancy provides a safety net, ensuring continuity even if one supplier faces challenges due to the energy crisis.
- iii. **Flexibility in Sourcing:** Beyond diversification, flexibility is becoming a watchword in supply chain management. SMEs are investing in systems and processes that allow them to quickly switch between suppliers based on real-time challenges. For instance, if a primary supplier is facing energy shortages leading to delayed deliveries, businesses can swiftly pivot to an alternative supplier. This requires robust data management and communication systems, enabling SMEs to have a holistic view of their supply chain and make informed decisions promptly.
- iv. **Re-evaluating Inventory Strategies:** In tandem with diversifying supply chains, SMEs are also reassessing their inventory strategies. Holding slightly larger safety stocks of critical components or products can act as a buffer against supply chain disruptions. While this might increase holding costs, it ensures continuity and can be a prudent strategy during uncertain times.
- v. **Building Collaborative Partnerships:** SMEs are also realizing the value of collaborative partnerships. Instead of transactional relationships, they are forging deeper alliances with suppliers. Such partnerships are based on transparency, where both parties share challenges, capacities, and insights, allowing for mutual adaptations during crises.

To encapsulate, the energy crisis underscores the fragility of traditional, linear supply chains. SMEs, in their typical adaptive spirit, are responding by diversifying, becoming more flexible, and fostering collaboration. This not only shields them from the immediate disruptions but also builds a resilient foundation for future uncertainties.

### **3.3. Transition to Alternative Energy Sources**

Amidst the shadow of the energy crisis, there lies an opportunity for reformation and redirection. One of the standout shifts observed among SMEs is their transition to alternative, sustainable energy sources. This change is not just a reaction to the immediate crisis but also a visionary step towards a more sustainable and resilient future.

- i. **The Push Towards Green Energy Solutions:** The energy crisis serves as a stark reminder of the perils of over-reliance on conventional, often non-renewable, energy sources. SMEs are now exploring green energy solutions like solar, wind, and hydro power. These renewable sources, while requiring an upfront investment, provide the dual benefit of sustainability and long-term cost-effectiveness. For instance, solar panels, once installed, can offer a consistent power supply at a fraction of the conventional energy cost.
- ii. **Decentralized Energy Generation:** A significant advantage of transitioning to alternative energy sources is the possibility of decentralized energy generation. SMEs can generate power on-site,

reducing dependency on the national grid. This autonomy shields businesses from grid-related disruptions and can be especially valuable during energy shortages.

- iii. **Benefits of the Transition:** Beyond the obvious advantage of energy security, transitioning to alternative sources offers several benefits. Green energy often comes with tax incentives, grants, or subsidies, reducing the financial burden on SMEs. Furthermore, the use of renewable energy aligns with global sustainability goals, enhancing the brand image of SMEs. Such environmentally-conscious positioning can attract a growing segment of consumers who prioritize eco-friendly businesses.
- iv. **Challenges in the Transition:** While the shift to alternative energy is promising, it is not without its challenges. The initial investment required for renewable energy infrastructure can be substantial. SMEs, often operating on tight budgets, might find this cost-prohibitive. Furthermore, the transition requires technical expertise. Finding skilled professionals to install and maintain green energy systems can be a hurdle in regions where such technologies are still nascent.
- v. **Hybrid Energy Systems:** Recognizing the challenges of a complete shift, many SMEs are adopting a hybrid approach. They integrate renewable energy sources with conventional systems. This ensures that businesses can leverage green energy when available while still having the safety net of traditional energy sources.

In summary, the transition to alternative energy sources is emblematic of SMEs' adaptability and foresight. While the path has its set of challenges, the end goal—a sustainable, resilient, and cost-effective energy solution—makes the journey a compelling one for SMEs. As the energy landscape evolves, SMEs that embrace this change will likely be at the forefront of a new, greener economic era.

#### 4. CASE STUDIES

To truly understand the impact of the energy crisis on SMEs and the strategies they employ, it's beneficial to delve into real-world scenarios. Here are a few case studies that shed light on the resilience, innovation, and challenges faced by SMEs during these trying times:

- i. **SolarTech Solutions:** Located in the heartland of Spain, this small-scale manufacturer of electronics faced a double whammy of increasing energy prices and irregular supply. Recognizing the sunny climate's potential, they invested in rooftop solar panels. The transition was not easy, given the significant capital required. However, with government subsidies and a low-interest loan tailored for green initiatives, they managed. Today, SolarTech not only meets its energy requirements but also sells surplus power back to the grid, turning a challenge into a revenue stream.
- ii. **FreshFarm Organics:** An organic farm-to-table business in California, FreshFarm faced logistical nightmares due to the energy crisis. With fuel prices soaring, transportation costs became exorbitant. Instead of passing on the costs to consumers or compromising on quality, they innovated. FreshFarm partnered with local businesses, setting up pop-up sales points, thus reducing transportation distances. They also initiated a subscription model, where local consumers could pick up their produce directly from designated points, reducing the need for daily deliveries.
- iii. **TechAid Services:** An IT support business in India, TechAid found its operations disrupted by frequent power cuts. Investing in a full-fledged alternative energy solution was beyond their financial capacity. However, they adapted by changing their operational hours to coincide with



times when power supply was most stable. They also invested in energy-efficient servers and computers that could run longer on backup power. Despite these efforts, the company did face challenges, including a reduced client base due to inconsistent service hours.

- iv. Handmade Crafts Co.: Located in South Africa, this artisanal business relied heavily on local fairs and markets, which were affected by energy shortages. With reduced footfall and inconsistent market timings, revenues plummeted. However, adversity bred creativity. The company diversified to online sales, leveraging social media and e-commerce platforms. They also started DIY craft kits, allowing consumers to indulge in artisanal crafts from the comfort of their homes, a pivot that has since become a significant revenue stream.

In essence, these case studies showcase the multi-faceted challenges posed by the energy crisis and the myriad ways in which SMEs adapt, innovate, or, in some unfortunate instances, face setbacks. They underscore the tenacity of the SME sector and its critical role in the broader economic landscape.

## 5. CONCLUSION

The profound effects of the energy crisis on Small and Medium Enterprises (SMEs) is a tale of interwoven challenges and innovations. At its core, this narrative underscores the intricate bond between global macro events and the day-to-day operations of the SME sector, a pivotal player in the world economy. Recapitulation of Key Points:

The energy crisis, rooted in a blend of geopolitical tensions, supply chain disruptions, and evolving consumption patterns, cast wide ripples across various facets of SME operations. From escalating operational costs, disrupted supply chains, reduced productivity to indirect consequences like financial strain and shifting consumer behavior, SMEs found themselves at the vortex of multifaceted challenges. Yet, amidst these adversities, emerged tales of adaptability –be it through energy efficiency measures, diversifying supply chains, or the transition to green energy. The Imperative of Resilience and Adaptability:

The energy crisis illuminated the inherent vulnerability of SMEs, often operating on lean margins and tight budgets. Yet, it also spotlighted their hallmark strengths: agility and adaptability. The case studies showcased the spectrum of responses, from harnessing local resources, innovating business models, to even pivoting entire operational strategies. Such adaptability is emblematic of the entrepreneurial spirit that fuels SMEs, making them both susceptible to and capable of overcoming global challenges. Recommendations for Policymakers and SMEs:

For Policymakers:

- Tailored Financial Instruments: Recognize the capital-intensive nature of energy transitions and offer low-interest loans or grants tailored for green initiatives, helping SMEs bridge the financial gap.
- Tax Incentives: Encourage the adoption of renewable energy and energy-efficient equipment by offering tax breaks or rebates.
- Capacity Building: Organize workshops and training sessions to educate SMEs on energy efficiency, alternative energy sources, and sustainable business practices.
- Infrastructure Support: Invest in public infrastructure, such as renewable energy grids or efficient transportation networks, to reduce the individual burden on SMEs.

For SMEs:

- Proactive Assessment: Regularly evaluate energy consumption patterns and costs, staying ahead of potential challenges.
- Diversify: Whether it's energy sources or supply chains, diversification reduces vulnerability to singular disruptions.
- Stay Informed: Engage in industry associations or forums that provide timely updates on global energy trends, offering insights into potential challenges and solutions.
- Consumer Engagement: Understand shifting consumer behavior towards energy consciousness and adapt offerings accordingly. This might mean introducing energy-efficient products or aligning with green initiatives.

In summation, the energy crisis, with its plethora of challenges, also ushered in an era of introspection, innovation, and adaptation for SMEs. The journey of SMEs through this tumultuous phase underscores a timeless lesson: in the face of global challenges, it's not the mightiest but the most adaptable that thrive. As the world grapples with an evolving energy landscape, the resilience and innovation of SMEs will undeniably play a critical role in sculpting a sustainable and prosperous future.

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## 2. Children’s mental health after pandemics. Factors associated with child pathology

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### ABSTRACT

The onslaught of the Covid-19 pandemic highlighted the need to find and implement effective interventions to strengthen the resilience of all people exposed to its consequences, let alone the vulnerable group of children and adolescents, who are probably facing such an important crisis for the first time. As demonstrated in the research, increased children’s psychopathology is associated with several factors such as age (rates are higher in adolescents), gender (increased rates in boys), psychological or physical well-being, social support, family dysfunction, and the history of trauma and resilience of their caregivers.

**KEYWORDS:** Children, mental health, pandemics.

### 1. START OF PANDEMIC

In January 2020, the World Health Organization (WHO) declared the outbreak of a new disease – Coronavirus (COVID-19) – as an emergency of international public health concern, while a few days ago it recognized it as a pandemic.

In Greece, children were the first to be asked to confine themselves at home and postpone their activities. From the studies so far, the children who have been ill have not presented a severe clinical picture, nor major complications – except in some cases – but due to the already long isolation in homes and the unknown length of time we are all called to stay in them, their mental health is particularly vulnerable.

This period of crisis brought about by the pandemic is causing intense stress to both children and adults. To maintain mental and psychosocial well-being during the epidemic, follow instructions for children with the help of you, parents/caregivers but also useful advice for all of you.

### 2. IMPACT

At the same time, research conducted by the European Association of Child Psychiatry found that the impact of the pandemic on the mental health of children and adolescents increased dramatically from 50% in 2020 to 80% in 2021, with the largest increase occurring in suicidal tendencies, anxiety and eating disorders and severe depressive episodes. On the other hand, it was identified that the provision of services to patients and their families was more affected at the beginning of the pandemic, rather than in its second wave.

### 3. IMPACT AND CHILDREN’S RIGHTS

In a report commissioned by the European Ombudsmen for Children, to map the impact of anti-pandemic measures on children’s rights in the member states of the Network, it was observed that vulner-

able children experienced greater discrimination, including children with additional learning needs, children with disabilities or mental illness, asylum-seeking children and refugees, children of separated parents and children in correctional institutions. It is emphasized that the pandemic has also highlighted inequalities between groups of children. Children and child experts have been largely excluded from European states' decisions on emergency measures.

Among the effects of the pandemic documented in this report are: the digital divide (some children could not access the Internet), the restriction on children's movement that posed a risk to children's mental health, the increased risk of children experiencing domestic or online exploitation, bullying or neglect, as well as the restriction of children's access to medical and psychiatric services. In addition, there is concern about children's mental health due to restrictions on movement, school closures, confinement at home, and limited opportunities to play and meet friends.

#### **4. PANDEMIC IMPACT**

Increased emotional and behavioral problems, hyperactivity, and reduced social behavior are among the effects the coronavirus pandemic has had on children and adolescents. The above results result from a survey conducted by the Child Psychiatry Clinic of the National and Kapodistrian University of Athens during the second wave of the pandemic on 282 children and 490 adolescents and their families, the preliminary results of which were presented today at a meeting of the Network of European Ombudsmen for Children by the Professor of Child Psychiatry at the National and Kapodistrian University of Athens and Director of the Child Psychiatry Clinic at the "Agia Sophia" Children's Hospital, Gerasimos Kolaitis.

#### **5. THE IMPACT OF PANDEMIC MEASURES**

"Children were greatly affected by the measures and policies followed to limit the spread of the pandemic and protect public health. An increasing number of complaints and requests for intervention have been submitted to the Ombudsman in the last year and a half and are a common phenomenon among all European Ombudsmen for Children", observed the Greek Ombudsman, Andreas Pottakis, opening the proceedings of the 25th annual conference of the Network of European Ombudsmen for Children, which takes place today and tomorrow in Athens.

The significant impact of the pandemic on the psyche, psychosocial development, and smooth socialization of younger members of our society. The findings are many and alarming: sleep disturbances, loneliness, sadness, anxiety, fears, disruption of diet, and reduced physical activity. And although distance education covered, to some extent, the cognitive part of school life, children's emotional and social development stagnated or even regressed, in some cases.

Mr. Pottakis stressed that the effects of the pandemic on children "were multifaceted and multilevel both in their physical and mental health, in their emotional needs, in their educational rights with the increased levels of abandonment and exclusion from the educational process, in socialization, as well as in family relationships, where there was an increase in incidents of domestic violence. Unfortunately, the effects are expected to be broad, short- and long-term, and also quite persistent." Indeed, the director of the Mental Health and Social Welfare Division of the Institute of Child Health, George Nicolaides, pointed out that a large number of cases and incidents will never be reported and always the numbers reflect a small percentage of the phenomenon.

## **6. INCONSISTENCY OF CHILD PROTECTION SYSTEMS**

During this period of the pandemic, “the inconsistency of child protection systems at the European level became even more evident under the pressure of this unprecedented emergency”, noted the Assistant Ombudsman for Children, Theoni Koufonnikolakou, who takes over the presidency of the European Network after the conference.

The current president of the Association of European Ombudsmen for Children and Young People in Scotland, Bruce Adamson, pointed out that the pandemic is not only creating a health emergency but also for human rights, while “children’s rights to education, health, family life, play, and socialization have been affected”.

Finally, representing Commission Vice-President for Democracy and Demography Dubravka Šuica, Colin Sikluna explained that the European Strategy on the Rights of the Child recently adopted by the European Commission took into account the positions of children themselves, as more than 10,000 children participated in the relevant consultation.

## **7. REACTIONS OF CHILDREN AND YOUNG PEOPLE**

Children and young people react to stressful situations in different ways depending on their developmental stage, perception, psyche, and environment, developing various symptoms: withdrawal, anxiety, feeling guilty, anger, agitation, frequent mood changes, regression in self-care, and previous stages of development they had mastered, nightmares, bedwetting and manipulative behaviors to provoke attention, are just a few of them.

## **8. CHILDREN IN VULNERABLE CATEGORIES**

Vulnerable children, with a history of mental health difficulties, with psychosocial/family problems and traumatic experiences, or children in alternative care facilities, experience incarceration more intensely and with more dramatic consequences and their support needs increase and diversify. For many of these children, face-to-face teaching and experiential knowledge acquisition are crucial, while distance learning creates inequalities in access, performance, and the development of additional learning difficulties in the future.

During incarceration, fragile family relationships are undermined, incidents of neglect, domestic violence, and abuse increase, victims’ ability to speak out is limited, as they are forced to experience incarceration with the perpetrator of their abuse, and they do not have access to other trusted adults to whom they can speak. In addition, confinement has led to a large increase in children’s and adolescents’ involvement with the Internet, which increases the likelihood of their victimization. On the other hand, social isolation conditions make it difficult for child protection and mental health professionals to identify such incidents and respond adequately, resulting in an increased risk for these children.

## **9. NKUA’S CONTRIBUTION TO STUDIES ON THE IMPACT OF THE PANDEMIC**

The Medical School of the National and Kapodistrian University of Athens through its psychiatric and pediatric clinics has offered very important work at psychosocial, research, and educational levels. This experience should be capitalized by transforming the Psychosocial Support Line that was created, into a national line, with a longitudinal function. The strengthening of the role of the psychosocial health services of the Local Government, the development of sports programs and creative

activities for children and adolescents, and the staffing of primary mental health structures for children and families, with the cooperation and cooperation of all of us, is also a pressing need. To give a strong voice to the children and young people of our society, we must respond to their needs with quick reflexes to help the young generation recover as soon as possible and can again hope for the future they deserve and deserve.

## **10. DOCTORS OF THE WORLD AND MAJOR HEALTH**

In the framework of the psychosocial support program “Open Minds 21” implemented by Médecins du Monde, mental health professionals from non-governmental organizations spoke on the “Impact of Covid-19 on the community and children’s mental health”.

The pediatrician and president of Doctors of the World Greece, Hara Tziouvara, welcoming the work of the event, said that the aim is “to exchange views on how Covid-19 has affected the psychology and behavior of children, whether they are children of the community or children of vulnerable groups” such as refugee children, since, as stated at the event, “it is something that will continue to concern us after the end of the health crisis”. “This pandemic-imposed and prolonged confinement and confinement has had and will have consequences on the psyche of adults and children,” Tziouvara stressed.

Finally, from Thessaloniki, the psychologist at the Social Polyclinic of Doctors of the World, Hara Tsevdoumaria, stressed, based on her experience all this time, that “there has always been a need for parental support but due to the pandemic we realized that an additional specialization is needed”, specifically in the field of “the effects of the pandemic on children but also on the relations between parents and children”. Referring to the children, Ms. Tsevdoumaria commented that the confinement “limited their physical energy and their physical and psychosomatic development”.

“This feeling of invisible fear,” as well as incomplete information or over information, Ms. Tsevdoumaria said, “became the trigger for acquiring a power of insecurities, anxious symptoms and negative thoughts” and “children’s reactions are always proportional to their developmental stage.” Ms. Tsevdoumaria noted that one of the problems she found was that because parents considered that the child understands the information received from the environment, they did not contact him about the specific issues related to the pandemic honestly but “always rounding the corners”, which “would be extremely beneficial”. “For the child to understand what he is dealing with,” Ms. Tsevdoumaria noted, a piece of advice that was commonplace among speakers. The 9 recommendations for their psychological support with back to school - Teachers can play an important role in promoting mental health. Children who will be quarantined and put back into distance learning need extra support.

## **11. SUPPORTING CHILDREN WITH BACK-TO-SCHOOL**

Teachers can play an important role in promoting mental health - Children who will be quarantined and put back into distance learning need extra support “Regardless of age, children may experience greater dependence on parents, irritability, and inattention. Parents report that children experience greater uncertainty, fear, and isolation, as well as difficulties sleeping. Younger children (3-6 years old) are more likely to show symptoms of attachment and fear for the health of their family members than older children (6-18 years),” Bozikas told the Athens/Macedonian News Agency.

At the same time, Mr. Bozikas notes that with the opening of schools, teachers who will again come into regular daily physical contact with their students are called upon to play an important role

in promoting children's psychological well-being. Regarding the psychological support of children who returned to the classrooms, he states the following:

Children should be regularly informed about COVID-19 and precautionary behaviors according to their level of maturity. Students should be explained the need to behave responsibly during the pandemic. Teachers must follow the precautionary measures (masks, distancing) to act as models for children.

Teachers can play an important role in promoting the mental health of their students. They can discuss healthy stress coping strategies (exercise, reading, music, etc.) that need to be provided to deal with negative phenomena such as the constant preoccupation with the internet, social media, and computer games.

Students need to understand the importance of socially beneficial or altruistic behavior and the importance of human virtues such as empathy and patience. Children need to understand their role in society and that necessary social distancing does not equate to emotional distancing.

Kindergarten teachers and teachers or responsible class teachers should communicate with parents by phone or online to provide feedback on students and their mental health.

Teachers can identify any effects on their students' mental health that need more specific intervention (e.g., anxiety, fear, depression, ADHD). In this case, they should discuss any problem with the parents for it to be dealt with promptly by a mental health professional. Important here is the contribution of the school psychologist. Visiting a child psychiatrist should never be taboo.

School psychologists should work closely with teachers to provide them with specialist information and advice on problems children may be facing.

Children who will be quarantined and put back into distance learning need extra support from teachers and tutors. Specialized help from a psychologist is especially helpful.

School administrators and teachers need to pay close attention to children who, due to their socio-economic situation, did not have access to online courses to fill the educational gaps created.

Of particular importance is the psychological support of teachers who in such conditions undertake the difficult task of caring for and protecting children, while at the same time, they are themselves exposed to the risk of COVID-19 infection. School psychologists and social workers can provide such support both individually and collectively. Seek help from a psychologist/psychiatrist through Skype sessions if you cannot manage your judgment and emotions. on a team level using the possibilities of new technologies.

## **12. HELP FOR POSITIVE TREATMENT**

Help children find positive ways to express negative emotions such as fear, sadness, and worry. Every child has his way of expressing his feelings. Sometimes engaging in a creative activity, such as playing and painting, can facilitate this process. Children feel relieved when they can express and communicate their feelings in a safe and supportive environment.

Maintain as much as possible habits and schedules that you had in everyday life (e.g. reading, participating in household chores) or help create new ones that include learning, playing, and relaxing.

Create a supportive social context. Children need adult affection and more special attention during difficult times. Encourage them to continue playing and chatting either with family or with friends via video calls as this reduces the feeling of social isolation.

In times of stress and crisis, it is common for children to show more attachment and be more demanding to parents. Talk to them about COVID-19 in the right and age-appropriate way.



Remember that children often get their feelings from the important adults in their lives. So how you respond to a crisis is crucial. It's important to manage your emotions and stay calm, listen to their concerns, talk to them politely, reassure them, hug them, and remind them that you love and are proud of them. This will create a climate of security and positive emotions.

### *NEED FOR APPEAL TO A SPECIALIST*

If we notice changes in the child's behavior that persist for a long time, such as systematic outbursts of anger, sleep disturbances, or eating, it is good to consult a specialist. Isolation can trigger depression or other mental health problems in some children. How to raise an optimistic child in the era of the pandemic.

At this time, when we are bombarded with bad news from the front of the coronavirus pandemic, it is more difficult than ever to raise our children in an environment dominated by positive thinking and optimism. But we must not give up, even amid the fear of COVID-19 and the quarantine restrictions (which despite the lifting of the curfew, will follow us for a long time). But where will we find optimism in the gloomy atmosphere of the days?

We focus on what is beautiful: Instead of constantly reflecting the same thoughts on what we have lost and what is at stake, let's focus on everything that continues to beautify our lives. Like, a walk in nature, a movie, or the fact that our loved ones remain healthy. Some books will also help us discuss with our children the value of gratitude. Like Barry Timms's "House with Happy Mice", Greg Abbott (ed. Diopters), teaches us to appreciate everything we have. We present the pandemic in a "friendly" way: young children are full of questions about the unprecedented situation we all experience. To talk to them about coronavirus in an understandable way, without causing them to be overwhelmed, we can resort to a book such as the free eBook "Coronovation: A Book for Children" (ed. Icarus). Or in a YouTube video like the puppet theater "The dragon came in quarantine!" where the kindergarten teacher Vassos Partzakoulakis presents the restrictions and hygiene rules. We help older children avoid the trap of fake news: children in adolescence and adolescence, surfing the internet by falling into various news of controversial credibility, as early as they are trained in their filters the better. They will become more up-to-date readers and will avoid the unnecessary stress and fear that fake news often trigger. So we inform them of tools they can use to cross-check "news" and direct them to the most reliable sources possible. We resist hate messages that flood the natural and online world: even against a global health crisis, the public is divided around issues such as the measures to be taken. We are trying to abstain from the intense controversy that unfolds in our neighborhood and social media, which simply traps us in a vicious cycle of anger. We direct our children to small acts of solidarity they can make, from a phone call to a friend who is isolated to shopping for their grandparents. It is sometimes enough to think about how strong a parent can become in extreme conditions, such as that father in Syria, Abdullah al -Mohammed, who did the true bombings, in a real war, to look like a play in the eyes of his 3 -year -old daughter.

### **13. MENTAL DESTRUCTION**

The word "resilience" is of Latin origin (resilience) which means "come back" or "recover after the pressure" (Masten & Gewirtz, 2006. Moore, 2013. Smith, Dalen, Wiggins, Tool, Christopher & Bernard, 2008). Initially, he described the durable quality of a defined substance in the positive sciences, such as the ability of materials or buildings to resist weather, maintain their integrity and recover

from possible damage. The term “durability” was later introduced in the field of social sciences. In the 1970s, works of psychology scholars, such as Werner, Garmezy, or Rutter, were decisive in creating a steady line in research on the concept of mental, now resilience, which refers to the positive adaptation mechanisms The person in challenging situations and conditions of adverse experiences (Masten, 2014a). Werner (1995) has presented mental resilience as a multifaceted concept. Each person responds differently to different situations (Blum, 1998), so he has a great deal of heterogeneity in response to the various adverse conditions and how to deal with life difficulties (Rutter, 2012). At the same time, it is linked to achieving positive results despite the challenges and threats (Brooks, 2006. Masten, 2001. Masten, Best & Garmezy, 1990), the successful treatment of traumatic experiences and avoiding negative “dangerous paths” (Garmezy, Masten, & Tellegen, 1984. Luthar et al., 2000. Werner, 1992) and can be defined as “a positive adaptation pattern in the context of old or new difficulties” (Wright & Masten, 2005, p. 18). The investigation of the adjustment process necessary as necessary to take into account the risk and protection mechanisms that are coordinated over time to mediate the impact of risk (Olsson, Bond, Burns, Vella-Brodrick & Sawyerd, 2003).

The American Psychological Society (APA) has defined mental resilience as the ability of the individual to adapt to adversity, traumatic experiences, and even significant sources of stress (APA, 2011, Papaconstantinopoulou, 2018) According to Grotberg (1995), mental resilience is important because it is the human ability that can deal with, overcome and enhance, and even transform the adversities of life. The development of this ability is based on protective factors that will be sought within the people themselves, family, and society. In her next article, she says that mental resilience helps children and adults to overcome adversity with courage, skills, and faith (Grotberg, 2009).

Reivich & Shatte (2002) define mental resilience as the ability of individuals to persist and adapt when conditions are not good. They argue that mental resilience is the field of cognitive assessment and evaluation of a situation. The response to a stressful event can be greatly influenced by the assessment of the situation, the ability of the person to constructively assimilate any experiences, the ability to predict a more effective way of dealing with the challenges of a given situation, and ultimately integrate the experience creatively (Everly & Lating, 2013. Reivich & Shatte, 2002). Cicchetti & Rogosch (1997) argue that a mentally durable person shows positive results in many areas of his life for a long time. In addition, mental resilience shows the possession of several abilities and skills at various degrees that help a person manage and possibly solve their problems (Alvord & Grados, 2005). Individuals are capable of pursuing their lives even when they face more risks (Brooks, 2006). Pinheiro & Matos (2013) report that interest in mental resilience and scope has increased significantly, especially in the last two decades. Friedli (2009) and Windle (2010) refer to health policies, which have contributed to making mental durability a recognizable and particularly important factor in health, quality of life, and how people respond to the challenges of adulthood (Papaconstantinopoulou, 2018).

In clinical practice, the concept of mental resilience is usually referred to as the ability to restore (Ahern, 2006). Garmezy (1991) defines the concept as the tendency to restore, recover or retreat, while Wagnild & Young (1993) define mental resilience as one’s ability to successfully deal with change and misfortune. Theory, research, and practice seem to conclude that the answer to any stressful event will be significantly affected by the assessment of the situation that the person will make, and his ability to predict an effective way to address the challenges of the situation. At the moment, as well as his ability to finally integrate the experience in a positive way (Everly, 2009. Everly & Lating, 2013).



Despite the growing research interest in the concept of mental resilience, it becomes clear that there is a lack of agreement on a functional definition of mental resilience, probably because it is influenced by many factors including the characteristics of individuals, the family, and its wider community (Herrman, Stewart, Diaz-Granados, Berger, Jackson & Yuen, 2011. Naglieri & Lebuffe, 2005). It appears as an inductive concept that encompasses human judgments about desired and unwanted effects, as well as definitions of threat or risk (Luthar et al., 2000. Masten, 2001). But through the various definitions, it is clear that: (a) these factors and systems contribute to an interactive dynamic process that may promote mental durability and b) mental durability may be specific by context and time and not present. In all fields of life (Masten, 2001). Similarly, there are multiple sources and paths towards mental resilience, which often interact and include biological, and psychological traits, social support traits, and social systems, such as family, school, friends, wider community, and society (Luthar et al., 2000. Prince-Embury, 2008). Therefore, the concept of mental resilience as a dynamic process appears prominent in this approach and as such a process is subsequently presented (Papakonstantinou, 2018).

#### **14. ARE KIDS RESISTANT?**

The prevailing view that “children are durable and will recover” is largely wrong and dangerous. Children are durable and adaptive but in such a psychopathic and threatening situation that prevails throughout society and has no way out, their strengths are seriously threatened. The other necessary application of social distancing measures seems to have harmed children and adolescents more than the virus itself, creating a generation that, as well as playing with friends is “illegal”, will have mental traumas that will manifest themselves in the long run. It is important to emphasize that the measures taken to limit the pandemic have negatively affected the protection of basic children’s rights: the right to health, education, and protection of their lives and their safety, and have highlighted other, chronic “pandemics” of society We, such as teenage obesity, screens dependence, etc. Supporting the mental health of children and their families/carers, facilitating access to mental health services, and creating an institutional framework for first aid telephone psychological framework are just some of the foundations of the next day’s design. Regular supportive monitoring of human resources of welfare and psychosocial structures should also be the highest priority of the state.

#### **15. THE MAJOR IMPACT ON CHILDREN-HUMAN AGE**

Studies on mental resilience began in the 1960s and 1970s (Masten & Gewirtz, 2006. Leontopoulou, 2005) with few scholars and a limited field of research (Goldstein & Brooks, 2013). Researchers’ initial reflections focused on how children and adolescents succeed when their development is threatened by poverty, neglect, abuse, violence, war, exposure to abuse, what protects them when they experience parental conflicts, low socio-economic situation behaviors, or mental disorders within their family environment and how their successful course is explained despite their adversity (Wright, Masten & Narayan, 2013). First researchers (Murphy, Rutter, Garmezy, Werner), but also more modern, such as Masten and Luthar (Leontopoulou, 2005), sought to understand the processes that some children did well when they were confronted with adversity. While others did not do it equally well (Masten & Garmezy, 1985). They mainly conducted timeless research in children, but also infants who were later examined and older, for the risk, vulnerability, and positive adaptation and included neurobiological agents in their studies (Garmezy et al., 1984), educational, psychiatric and physical Disorders (Rutter, 1976. Werner, 1986).

Their research began to broaden the science of mental resilience by changing the framework and shifting the emphasis from the “deficit” to protective factors and adaptive (Papaconstantinou, 2018) abilities (Garmezy et al., 1984. Rak & Patterson, 1996. Rutter, 1986). Over time, and as more research has tried to approach the issue, it became clear that the positive adaptation of a person, despite exposure to difficulties and dangers, included a developmental course in which new, positive, and negative elements were incorporated. of (Masten, 2011, 2013). The term “resilient”, which more accurately describes the nature of the concept, appeared to include those who were once referred to as “invulnerable” and investigations, which were limited to investigating the factors that create. Danger began to focus on the factors that promote the mental resilience of children (Luthar et al., 2000). Thus, the initial research that was focused on selective strengths that help individuals survive adversity, such as, for example, mental functioning, shifted to childhood activities. This shift occurred when the positive adaptation of children who were considered prone (or were high-risk) in presenting in their lives (Masten, 2001. Wright & Masten, 2005). Childhood activities have appeared to be a final product of protective mechanisms that do not eliminate risks and anxiety, but make the person capable of dealing with them effectively (Rutter, 1987). The formation of these mechanisms begins already in the early years of one’s life (Masten, 2007. Southwick, Litz, Charney & Friedman, 2011).

With the emphasis placed on the ability of young people to deal with any adversity, the concept of mental resilience has given a useful tool to those professionals who sought to promote and enhance power to vulnerable individuals, groups and document the processes by which young people achieve positive development results, despite exposure to their adapting threats (Cicchetti, 2010. Goldstein & Brooks, 2013. Luthar, 2006. Masten, Papakonstantinou, 2018. Panter-Brick & Leckman, 2013. Rutter, 2012). Thus, the study of mental resilience since its inception until today has shown four main phases in the field of research, four “waves” (Wright et al., 2013). The first wave of research came from these scientists who wanted to understand and prevent the development of psychopathology (Masten, 2011. Masten & Obdovic, 2006). These researchers recognized the importance of children who seemed to be doing well under dangerous conditions (Masten & Obdovic, 2006). Initial surveys gave satisfactory descriptions of the phenomenon, and the basic concepts and were based on the factor ‘person’, his powers, and resources available (Masten, 2007. Masten et al., 1990. Rutter, 1987. Wright et al., 2013). These resources, which appeared common to children and adolescents, had to do with positive relationships with affectionate adults, effective parental presence, effective teachers and school system, intelligence, problem-solving, self -effectiveness, self -efficacy, Self -control, perseverance, effective stress management, incentives for success, faith, hope, the signification of life, the moral rules (Masten & Obdovic, 2006).

The second wave of research on mental resilience was more dynamic, adopted the developmental approach of the systems, and explored positive adaptation within a risk context. It focused on the interactions of people with the systems, in which they participate in their development, and focused on detecting the processes and regulatory systems that explain the protective factors associated with mental durability (Masten & Obdovic, 2006). In this second wave, the researchers tried to determine how these common protective factors affect adaptation and promote the role of development systems (Cicchetti, 2010. Cicchetti & Curtis, 2007. Masten, 2007, 2011). This in turn led to greater emphasis on the role and other systems other than the family (Cicchetti & Curtis, 2007. Masten, 2007, 2011. Papakonstantinou, 2018). The third wave emerged from the need for prosperity in children growing up under adverse conditions and focused on prevention and intervention (Zolkoski & Bull-ock, 2012). Researchers combined scientific findings on the data and factors that promote mental

resilience to design interventions aimed at improving mental resilience through the change of developmental course (Masten, 2007. Weissberg, Kumpfer & Seligman, 2003).

The findings in this phase of research confirmed many of those of the previous phases and especially the role of personal characteristics, relationships, and context related to mental resilience in various situations. Also, the possibility of common factors and adaptive systems related to positive responses to difficult and particularly adverse situations was highlighted (Masten, 2001, 2004. Masten & Obradovic, 2006). These factors included, but are not limited to, learning, self-regulation, family, school, and peers. When all of this is available and functioning normally, young individuals appear mentally resilient. The problem begins when these systems have been damaged or not developed naturally as a result of a “disruption” in their development path (Masten & Obradovic, 2006).

In 2006, the fourth wave of research was launched as part of a major movement in all sciences related to genes, brain function, and development (Cicchetti, 2010. Feder, Nestler, & Charney, 2009). Similar research data from different scientific fields on brain development, neurobiological processes, and the interaction of systems that drive development paved the way for new interventions in the field of mental resilience. The interventions that began to be implemented were based on the individual and his strong developmental elements (Moore, 2013). The new wave of research in the field of resilience has the potential to combine data from previous decades with data from current studies and move on to more analysis.

Today, research focuses on mental resilience combined with strategic interventions directly at the developmental stages (Papakonstantinou, 2018) of the individual’s journey, which provide a more positive outlook (Wright & Masten, 2005). This view seeks the strengths of the individual, and not his weaknesses, from his young age and can be a guiding axis in the life of the individual.

According to Masten (2007), the next wave of research on mental resilience will have the potential to bring into the future the theory of the past and the data gathered from the surveys and to try, through multilevel analyses, to understand protective influences at all behavioral levels.

## **16. TEACHER’S ROLE**

The role of teachers within the school environment is added as an important environmental factor in promoting resilience (Wang, Haertel & Walberg, 1998. Zimmermann & Arunkumar, 1994). Evidence suggests that teacher support and guidance can play a key role in developing a child’s well-being and mental health (Schoon & Bartley, 2008. Hill et al., 2007. Gutman et al, 2002). Positive teacher-student relationships have been linked to increased cognitive behavior, emotional involvement in learning, and increased academic attainment, while negative teacher-student relationships with poorer engagement and academic success (Roorda, Koomen, Split & Oort, 2011). In addition, teachers’ perceptions of themselves and their students seem to play an important role in setting teachers’ expectations of their students (Brooks, 2001, 2004). These perceptions are often not expressed, but they have a profound influence on the definition of effective teaching practices, the quality of relationships with students, and the positive or negative climate created in the classroom and school environment in general (Brooks & Goldstein, 2008).

Brooks & Goldstein (2008) report that effective teachers are those who:

- understand the lifelong impact they have on their students,
- believe that the foundation for successful learning and a safe classroom climate is the relationship between student and teacher,

- believe that all students are very keen to be successful, and if a student is not learning, teachers should ask themselves how they could adapt their teaching style and learning materials to meet students' needs (Papakonstantinou, 2018),
- do not consider that paying attention to the socio-emotional needs of students is something “out of schedule” that takes time away from teaching the subjects,
- recognize that if teachers want to connect effectively with their students, they should always try to perceive the world through the eyes of their students;
- understand that students will be more motivated to learn if they feel they own their education;
- realize that one of the biggest barriers to learning is a student's fear of making mistakes, or feeling ashamed;
- follow a strength-based training model that includes the recognition and empowerment of each student,
- develop and maintain positive, respectful relationships with their colleagues.

Within this framework, the profile of support is formed for all its students, but especially for those who come from “poor” support and healthy relationships. This teacher is called upon to play this role, which will help young people transition from adversity to resilience (Henderson & Milstein, 2008).

## 17. NEED FOR LONG-TERM RESEARCH

Mr. Kolaitis said that there are not many studies on the effects of the pandemic mainly on children and adolescents, but the first studies in China, India, the USA, Spain, Italy, and Germany, show, like the Greek one, negative effects on their mental health and increased rates of anxiety and depression. He noted, however, that more research is needed on the issue over time.

## 18. CONCLUSION

The results of this paper reveal the effects of pandemics, and specifically Covid 19, on children's psychology, in all areas of human life, mainly in the school environment. Both the role of the family and teachers in effectively dealing with the negative consequences on children's psychology is important. These findings can be used as a proposal in the field of Mental Health and by extension in Public Health as a primary prevention measure. It also indicates the need to plan and implement such interventions both in critical periods such as the pandemic and before the outbreak of a crisis.

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### 3. Lenguaje y realidad: la divergencia lingüística-ontológica entre Física y Filosofía

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#### ABSTRACT

Physicists and philosophers attend to the same phenomena but each one using own language. Despite the linguistic divergence, the problem in which the so-called theoretical/unobservable/universal ontological terms go from the theoretical (language) to the ontological (reality) is a common debate between both. Postulating a reflective meeting point would reduce the abyss between the two. “Extension and Change” as physical-ontological metalinguistic categories postulated by R. Neelamkavil seek this task. Analyzing the ontological-linguistic aspects of the unobservables in physical theories shows the relevance of the “Extension-Change” categories. The study first presents the theoretical background of scientific language. Then, the linguistic-ontological aspects are analyzed, giving an account of the effectiveness of “Extension-Change”. Finally the conclusions are given.

**KEYWORDS:** Language, Theoretical Terms, Extension, Change, Ontological Universals, Unobservables.

#### 1. LENGUAJE, REALIDAD, Y CIENCIA: LAS CONCEPCIONES FUNDACIONALES DE LAS TEORÍAS CIENTÍFICAS

A pesar de las evidentes diferencias entre los lenguajes se esperaría que la percepción de la realidad encontrase lugares comunes dentro de los distintos sistemas lingüísticos. Sin embargo, esto no es así. ‘Lo real’ es concebido y descrito desde diversos puntos de vista. María Teresa Cabré Castellví sostiene: “los términos son al mismo tiempo unidades gramaticales, unidades cognitivas y unidades socio comunicativas. Son unidades gramaticales que forman parte también del léxico de una lengua; son unidades de conocimiento que vehiculan una determinada percepción de un segmento de la realidad.” (Cabré, 2010: 3; 2023) este segmento de realidad al que hace referencia Cabré da cuenta de las diferentes representaciones de “lo real” que cada lenguaje contempla. Bertha Rodilla Gutiérrez argumenta: “A pesar de esa única capacidad humana, reflejada en unos principios comunes a todas las lenguas, cada sistema aborda y estructura la realidad de una manera (...) las lenguas categorizan de un modo distinto lo real.” (Gutiérrez, 1998: 21) Pero dentro del universo de lenguajes, solo el lenguaje científico ofrece una concepción aproximada y a su vez suficientemente detallada del mundo superando las diferencias naturales de cada sistema lingüístico a través del modo objetivo de estructurar la realidad. Esto es la clave para conseguir una estandarización suficientemente aceptable de manera unánime por todos los sistemas lingüísticos de ‘lo real’.

La estructuración de esta estandarización se funda en una exclusión de la visión cotidiana del sujeto. Sin embargo, esta exclusión de la subjetividad natural del hombre común tiende a malinterpretarse como una ‘objetividad neutral’ que busca toda eliminación del papel del sujeto en la descripción de la realidad sin tomar en consideración que existe una diferencia entre el sujeto normal o natural y el

sujeto intencionado hacia el conocimiento, donde éste último no puede ser excluido de las formulaciones de las teorías científicas.

Frente a este respecto cabe señalar además que nuestras teorías científicas son concebidas por un sujeto (intencionado a conocer) permeable por su contexto cultural e histórico. Sin embargo, en ciencia prevalecen los aspectos que caracterizan la estandarización del lenguaje científico en la descripción de la realidad percibida por los sujetos, y, por supuesto, de la realidad independiente del sujeto cognoscente. Lo que Raphael Neelamkavil pasa a denominar “Realidad-en-total”. (Neelamkavil, 2015: 6)

Las relaciones que se establecen entre los distintos términos, conceptos, etc, dentro del lenguaje de la ciencia son similares en todos los sistemas lingüísticos ya que resulta independiente de las variedades lingüísticas, regionales o geográficas. En otras palabras, son los tecnicismos dentro del lenguaje de la ciencia los que prescinden de aspectos lingüísticos característicos de lenguajes regionales.

Así, el uso de tecnicismo dentro de la compleja estructura de formulación de conceptos científicos pasa a garantizar no solo la unificación en la comprensión del sistema de códigos lingüísticos en ciencia, sino además, la relación entre el léxico científico de una determinada disciplina y la estructura de conceptualización científica. Es a través de ésta última – estructura de conceptualización – donde se constituye el nuevo concepto científico por medio de la comunión entre el léxico y la significación del nuevo término, bajo el análisis y normalización de las propiedades del nuevo concepto.

Frente a este proceso surge la cuestión acerca de la relación causal entre pensamiento, estructura de conceptualización y lenguaje: ¿Influye el lenguaje previo en la estructura de conceptualización de un nuevo concepto? ¿es el pensamiento el que influye en el lenguaje científico? Gutiérrez lo expresa bajo los siguientes términos: “No resulta difícil creer que el pensamiento influya en el lenguaje, pero sí puede serlo afirmar que también el lenguaje – científico – influye en el pensamiento, en la elaboración de las hipótesis, en las clasificaciones de la ciencia.” (Gutiérrez, 1998: 24) Por su parte, Hans Grelland en su ensayo “Husserl, Einstein, Weyl, and the Concepts of Space, Time, and Space-Time” (2008) arguye:

One is the impact of language in the act of constituting even the most elementary perceptions. There are no such things as a theory-free perception. The perceived forms and structure are already inhabited by more or less explicit theories. The second is that mathematics is in itself a language and offers an extended conceptual structure interfering with our perceptions. Even if we accept, as I do, that to be is to be an intentional object for a consciousness (or an abstraction here from), this being may already be of a “mathematical” kind. This also applies to mathematical space-time. (Grelland, 2008: 3)

De acuerdo a Grelland, muchas de las hipótesis, postulaciones, conjeturas, etc., en ciencia están influenciadas por el lenguaje científico heredado y aprehendido. Para nadie resulta una sorpresa que la sustentación de un nuevo concepto científico encuentre un rechazo natural de parte de la comunidad científica, sobre todo, si la significación de la nueva concepción revoluciona los basamentos clásicos. Esta resistencia a la nueva significación o postulación terminológica es frecuentemente un obstáculo para el propio avance de la ciencia.

Probablemente el origen de tal obstinación – entre otros muchos factores – se deba al rechazo de abandonar la cosmovisión heredada (mostrada en el lenguaje y léxico científico tradicional) por una renovación de términos y conceptos claves. Aunque las evidencias empíricas muestren que se debe asumir un cambio en la significación, comprensión, interpretación y uso de nuestras concepciones fundacionales en ciencia, la comunidad científica en general se aferra a su dogmatismo. Un



ejemplo lo encontramos al inicio de las postulaciones relativistas de Einstein en cuanto al cambio en la significación del concepto de espacio y tiempo, la concepción de campo de Boscovich-Faraday, la concepción dualista de la luz, entre otros tantos conceptos revolucionarios. De esta manera, la influencia de la terminología previa en la cosmovisión científica resulta contundente. (Gutiérrez, 1998: 25-26)

La relación entre pensamiento y lenguaje científico no solo es evidente, sino que es bidireccional: tanto influye el lenguaje en el pensamiento científico como el pensamiento influye en el lenguaje. Sí bien, a través del lenguaje, la ciencia pasa a representar su aprehensión de la realidad a través de la sensibilidad, también es cierto que en la inagotable búsqueda de comprender e interpretar la realidad el pensamiento científico muchas veces trasciende lo sensible constituyendo nuevos conceptos que son corroborados empíricamente posteriormente.

En otras palabras: el lenguaje en ciencia va más allá de la mera representación de la realidad sensible. Cuando se constituye una noción nueva en ciencia gestada en el pensamiento y pasa a consolidarse en el léxico científico, en una primera instancia no se está representando lo sensible, sino que, el sujeto trasciende los límites que impone su cosmovisión heredada para alcanzar un nivel superior de interpretación de la Realidad proponiendo una nueva significación o quizás una nueva interpretación o revisión de términos ya aceptados precedentemente.

Esta es la génesis de las concepciones fundacionales en las teorías físicas: energía, materia, gravitación, campo, tiempo, etc., son concebidas por el sujeto sin recurrir a la evidencia empírica y/o prescindiendo de la percepción sensible. Son estas concepciones las que soportan todas las teorías físicas. El físico opera, conjetura, hipotiza, y experimenta soportado en este grupo de concepciones que, posteriormente, demuestran que no son meros constructos teóricos sino que existen como entidades. Pareciera que se “encarnasen” en la realidad bajo múltiples facetas. Son escurridizos. Así, la evidencia empírica de la existencia de estas “entidades” teóricas no es directa, sino, indirecta. Es por ello que a estas concepciones fundacionales de todas las teorías físicas se les conoce como inobservables, no observables, términos teóricos, universales ontológicos, entre otros términos. Los inobservables, términos teóricos o universales ontológicos pueden clasificarse como sigue:

- (1) Entidades teóricas: aquellas que se suponen existen en modo dinámico o procesual pero, son percibidos indirectamente. Son los que pertenecen a los denominados universales connotativos. Un ejemplo son los bosones, neutrinos, etc.
- (2) Constructos teóricos: aquellos que aunque pertenecen a la realidad, en tanto proceso existente, son esencias o construcciones teóricas. En este grupo se evidencia la necesidad teórica de “nombrar” un aspecto de un efecto físico como si fuera una entidad teórica aunque no exista como tal. Por ejemplo, la energía potencial.
- (3) Entidades Puras: aquellas entidades entendidas como universales ontológicos. Por ejemplo, materia, energía, gravedad, materia oscura.

Estos inobservables o términos teóricos son los que dan consistencia interna a todas las teorías físicas ya que son procesos existentes dentro de la realidad a la que el físico pretende conocer y, además, representan cualidades teóricas, en tanto esencias. La cuestión está en cómo estos inobservables pasan de las postulaciones teóricas transcendentales (independientes de la mera percepción y experimentación), lenguaje, léxico, hipótesis, conceptos, etc., a la encarnación (ontología) en la Realidad en total, es decir, a la realidad independiente del sujeto.

David Lewis en su artículo “How to Define Theoretical Terms” (1970) Sostiene: “Most philosophers of science agree that, when a newly proposed scientific theory introduces new terms, we usually cannot define the new terms using only the old terms we understood beforehand. On the contrary, I contend that there is a general method for defining the newly introduced theoretical terms.” (Lewis, 1970: 427) Lo interesante es que en ciencia estas concepciones (inobservables, términos teóricos) son corroboradas, en la mayoría de los casos, de manera indirectamente experimental. Esto abre el debate en torno a estas concepciones o nociones fundacionales en las teorías científicas. En resumen: los términos teóricos o inobservables ¿Existen o no? ¿Son solo conceptos? ¿Existen en el momento en que el físico las adjudica un nombre? La pregunta no tiene una respuesta simple pero podemos reflexionar acerca de este problema abierto poniendo atención al lenguaje como fundamento necesario dentro de la metodología científica. Ello no implica la negación ontológica de las entidades teóricas o inobservables, en tanto universales ontológicos que se gestan con antelación a la denotación terminológica o lingüística. Todo lo contrario. Partiendo de la comprensión de los aspectos del lenguaje científico y su relación con la realidad se vislumbra más claramente la naturaleza de los inobservables, términos teóricos o universales ontológicos para luego postular la categorización más adecuada (Extensión-Cambio) que pasará a representar el factor común entre las teorías físicas y las reflexiones filosóficas reduciendo con ello la divergencia lingüística entre ambas disciplinas.

## **2. LENGUAJE, SUBJETIVIDAD, REALIDAD, Y REPRESENTACIÓN**

La consideración de la objetividad y universalidad en ciencia, en tanto no intervención de la intimidad del sujeto (i.e., la confianza después de la objetividad) y presunción de la verdad (la universalidad asumida en conclusiones lógicas) son sustituidas por la construcción intersubjetiva consensuada, dando un giro a las nociones de objetividad y universalidad las cuales pasan a referir a la cognición compartida (objetividad) y consenso en dicha cognición compartida (universalidad).

La noción de intersubjetividad adquiere así una relevancia dentro de las reflexiones filosóficas a partir del llamado giro lingüístico que pone énfasis en el papel de las funciones lingüísticas dentro de la construcción del conocimiento. Para los partidarios de esta corriente, la dicotomía no está centrada entre idealismo-realismo, sino entre lenguaje-realidad.

Sin embargo, tampoco esta postura (al igual que otras dentro de la filosofía) puede evadir la persistente presencia de los universales ontológicos, términos teóricos, o, inobservables en los discursos de la ciencia. Así, sea en términos empiristas, lingüísticos, o, en términos trascendentales, los universales ontológicos o términos teóricos ejercen presiones a tal magnitud que no pueden ser simplemente ignorados. Entonces, y a partir de esta tensión, la intersubjetividad surge como posibilidad de reflexión dentro de la estructuración de la problemática del conocimiento al cuestionarse el papel del sujeto y su acceso a la realidad externa – la cual es una constante en ciencia.

Resulta indudable el cambio significativo que el giro lingüístico ha producido dentro del método filosófico. Según esta perspectiva, el lenguaje permea los objetos intencionales de tal manera que conlleva a destacar la importancia del carácter lingüísticamente mediador de la subjetividad. Esto es, la igualdad denotativa entre conceptos/palabras y cosas/eventos, resulta incuestionable. En este sentido, el lenguaje es mucho más constitutivo de la realidad en la mente dejando sin efecto la noción de objetividad neutral científica e intuición transcendental filosófica. Tal capacidad de constitución puede ser adscrita en varios grados o niveles de influencia también en la herencia cultural, biológica, psicológica, etc.

Sin embargo, la visión del giro lingüístico no puede negar la existencia de entidades ontológicas presentes en una realidad externa. Las entidades y eventos son identificadas aproximadamente a través de un concepto que se da en el pensamiento humano (puramente connotativo en la mente) y que deviene, posteriormente, en una palabra (en una manera lingüísticamente denotativa). Ahora bien, una cosa es clara: los universales connotativos y denotativos (en la mente y en el lenguaje, respectivamente) son generados por los universales ontológicos (inobservables, términos teóricos, es decir, lo existente independientemente del sujeto) que están fuera del sujeto, en las cosas, eventos. (Neelamkavil, 2022: 14) Por supuesto que dentro de los adeptos al giro lingüístico se presenta diferencias internas frente a lo que se acaba de exponer.

Ferdinand de Saussure, por ejemplo, sostenía que el concepto de algo no puede existir sin ser nombrado, conllevando a que nuestra percepción sea signada por las diferentes significaciones que adquiere una noción. En su libro *Curso de Lingüística General*, sostiene: “Para ciertas personas, la lengua, reducida a su principio esencial, es una nomenclatura, esto es, una lista de términos que corresponden a otras tantas cosas. Esta concepción es criticable por muchos conceptos. Supone ideas completamente hechas preexistentes a las palabras.” (Saussure, 1945: 91) De esta manera, para Saussure, las ideas no tienen una preexistencia antes de ser nombradas a través de palabras. Es decir, el pensamiento no es independiente de las palabras.

Nuestra percepción está sujeta a las diferencias entre significados. La realidad externa parece casi o parcialmente dejar de existir en el momento en que nos estructuramos bajo un sistema simbólico de lenguaje. De esta forma, la ‘realidad’ pasa a ser solo una convención denominada ‘lenguaje’. Una versión fuerte de esta interpretación, sostiene que todo lo que se encuentre al margen del lenguaje o de nuestro estructurado sistema de símbolos no tiene existencia. Aquello que no sea sistematizado bajo el lenguaje no existe dentro de la realidad humana.

Esta postura otorga un poder al sistema lingüístico en tanto, ontología, teoría de la referencia y del conocimiento. Jürgen Habermas en su libro *Pensamiento Posmetafísico* sostiene la tesis de que la “[P]ragmática de todo uso del lenguaje lleva inscripta una estructura básica de intersubjetividad y la suposición de un mundo objetivo común.” (Habermas, 1990: 179)

Según Habermas, la intersubjetividad es la posibilidad que permite salvar las dificultades teóricas. La racionalidad humana es inmanente, donde, la intersubjetividad es condición para referentes compartidos e interacciones lingüísticas. Ahora bien, ¿cómo comulgar estas ideas con la ciencia? Adoptar una ontologización del lenguaje bajo la sola dicotomía lenguaje-pensamiento, además de aceptar la no existencia de entidades por su ausencia de etiquetas lingüísticas, resulta impensable en el quehacer científico, no por prejuicios dogmáticos, sino, por la evidencia científica.

Lo que sí es irrefutable es el papel de la intersubjetividad en la práctica científica, así como la importancia del lenguaje científico, pero no como agente delimitante en el acceso al conocimiento. Las cosas existen antes de ser nombradas. De esto la historia de la ciencia está repleta de ejemplos. La evidencia de la existencia de neutrinos, campos, ondas gravitacionales, agujeros negros, etc. son la evidencia de la existencia de una realidad fuera del pensamiento humano que, dicho sea de paso, contempla una percepción sensible limitada. Los fenómenos de la realidad no aparecen a partir de las nominaciones que se le dan.

Thomas Kuhn en su libro *La Estructura de las Revoluciones Científicas* (2007) expone con inmejorable claridad, la definición de ‘anomalía’ en ciencia, y como estas anomalías conducen a una ‘cri-

sis'. Argumenta Kuhn: "El descubrimiento comienza tomando conciencia de una anomalía, es decir, reconociendo que la naturaleza ha violado de algún modo las expectativas inducidas que gobierna la ciencia normal." (Kuhn, 2007: 130)

Entonces, las anomalías representan un momento de fractura en el avance de la ciencia establecida cuando se da un fenómeno inédito que incumple con las leyes establecidas impulsando la revisión, y/o cambio en los modelos científicos. Ejemplos de esto podemos encontrarlos a lo largo de la historia de la ciencia. Desde Galileo Galilei y su avistamiento de las manchas solares (que en aquel entonces carecían de nombre), hasta la detección de las ondas gravitacionales pasando por el experimento de la doble rendija. Son muchas las anomalías que ha sorprendido a la ciencia antes que esta pudiese siquiera pensar en asignar nombres a estos fenómenos.

Bajo esta evidencia se cuestiona una ontologización del lenguaje como teoría del conocimiento absoluta. En su lugar, pareciera más adecuado asumir un realismo científico reivindicado al estilo de Ian Hacking quien en su trabajo *Representar e intervenir* pasa a distinguir dos modalidades del realismo científico: (1) las teorías son verdaderas o falsas en cuanto constituyen representaciones adecuadas o no de la realidad, y (2) muchas entidades realmente existen. En otras palabras, para Hacking, la idea de realismo científico plantea que los procesos descritos por las teorías correctas realmente existen. (Hacking, 1996: 39) Bajo esta perspectiva, y, en cuanto a las modalidades del realismo sostiene Hacking:

Con brevedad engañosa, empleare el término "entidad teórica" como palabra gancho para todas aquellas cosas postuladas por teorías pero que no podemos observar. Esto incluye, entre otras cosas, partículas, campos, procesos, estructuras, estados, etc. Hay dos tipos de realismo científico, uno para teorías, y uno para entidades. El problema con respecto a las teorías es si son verdaderas, o si son verdaderas-o-falsas, o candidatas a ser verdaderas, o si aspiran a la verdad. El problema con respecto a las entidades es si existen o no. (Hacking, 1996: 45)

Las ciencias buscan, según Hacking, aproximarse a la verdad con respecto a los eventos; es decir al descubrimiento de la constitución interna de las cosas y al conocimiento del universo – i.e., en la totalidad de la Realidad física. Así, Hacking admite la existencia de inobservables. Sostiene W.H. Newton-Smith en su libro *The Rationality of Science* al respecto: "Hacking has pointed out, is characterized by its introduction of theoretical entities through laws which connect these entities to observable phenomena." (Newton-Smith, 2003: 99) Entonces, para Hacking una entidad teórica es toda cosa que postula una teoría y que resulta inobservable.

Newton-Smith plantea además que dentro de la distinción del realismo que propone Hacking se pueden diferenciar tres elementos claves: el ontológico, el casual y el epistemológico. El primero, el ontológico, sostiene que las teorías científicas son verdaderas o falsas en virtud de la correspondencia con el mundo; el segundo, el causal, establece que los términos de la teoría, si es verdadera, denota entidades teóricas causalmente responsables del fenómeno que se observa y, finalmente, el elemento epistemológico está basado en creencias justificadas sobre teorías o entidades de parte del sujeto cognoscente.

Dentro de estos ingredientes, se identifican dos aproximaciones al realismo asociadas a su función: la primera, estructurada al realismo como un problema general del conocimiento que se resuelve con la metafísica y la filosofía del lenguaje, y la segunda, que mira al realismo ordinario como un problema particular del conocimiento que se resuelve por medio de la investigación. Así, y según esta aproximación, la ciencia tiene dos objetivos: la teoría y el experimento. La teoría trata de describir cómo es el mundo o realidad, en tanto que la experimentación y la tecnología lo transforman.

Ahora bien, si bien es cierto que las entidades teóricas existen no es menos cierto el necesario y eficaz uso de una adecuada terminología científica posibilita la clarificación del pensamiento científico. Así, y abordando el primer objetivo de la ciencia, en tanto lenguaje, teoría e inobservables, es necesario establecer que (y siguiendo a Hacking) el uso de la terminología científica resulta importante en cuanto a teorizar en ciencia. Categorizar adecuadamente permite un alcance mayor en la descripción de la realidad externa que, dicho sea de paso, existe fuera del sujeto.

No podemos continuar sosteniendo una dicotomía lenguaje-realidad, cuando de lo que se trata es de aceptar que la ciencia y su relación con la realidad se dan relaciones más complejas: fenómeno-sujeto-objeto-realidad. Pero, en el quehacer científico resulta necesario ‘saber’ expresar adecuadamente el resultado final de estas relaciones y en ese sentido el discurso científico juega un papel fundamental.

### **3. LAS CATEGORÍAS METALINGÜÍSTICAS FÍSICO-ONTOLÓGICAS EXTENSIÓN-CAMBIO**

La adopción, renovación, y actualización del uso de las categorías dentro del modo expresivo de la ciencia es un requisito indispensable para el lenguaje de la ciencia. (Hackett, 2019: 6) Dicho de otra manera, las personas construyen conceptos y sistemas de la realidad usando palabras como unidades básicas de categorización significativa y, en ciencia, el uso de las categorías para una eficiente comprensión de la realidad requiere de una continua y dinámica actualización de las categorías ya constituidas.

Asumir ‘Extensión’ y ‘Cambio’ como categorías conceptuales físico-ontológicas posibilita reducir el abismo entre el lenguaje físico y filosófico, en tanto categorías metalingüísticas. Mas aún, tal adopción representaría un puente en común entre ambas disciplinas en cuanto a conjugar y complementar (cada una dentro de sus descripciones y términos lingüísticos en tanto lenguajes de especialidad diferentes) reflexiones, postulaciones, aplicaciones, y comprensión de la realidad fenoménica. Extensión y Cambio deben ser comprendidas como las formas de ser de procesos existentes. Es decir, refieren al aspecto procesual de la realidad independiente del sujeto o “Realidad-en-total”. (Neelamkavil, 2018: 54) Expone Neelamkavil:

Extension and Change are not on par with space and time which are epistemic-measuremental abstractions, because (1) nothing existent can be in the non-existent space, time, or space-time, and (2) the moment something is measured in Extension and Change, the latter two are not taken as anything existent but as universal qualities of existents. The measuring is always as space and time. Space, time, and spacetime – as epistemic – (1) arise in the pure conscious activity-centre (Cogito) just like the other connotatives arise, (2) cannot arise ontologically in any existent, (3) cannot be the receptacles of any existent, and (4) cannot give origin to existents (as some physicists are prone to claim: ‘Space-time creates or generates matter-energy, gravitation, etc.’). The latter, therefore, has been a conceptually dangerous trend in Relativity from the time of Einstein, and in recent times in quantum cosmology. “Spatiality” and “temporality” are based merely on the measurementally connotative notions of the ontologically general “some”, “here”, and “there” which pertain directly to the level of ‘something-s’. What draws the connotatives from the onto-logical universals of the level of something-s is the Cogito, and hence, space-time can never be ontological universals. But the state of being in Extension is just the state of having aggregate parts, and being in Change is just the state of impacting. Extension and Change are therefore ontological; and space and time are epistemic-measuremental. (Neelamkavil, 2022: 18)



Espacio y tiempo en tanto condiciones cognoscitivas y epistémicas no cumplen la exigencia de las categorías metalingüísticas que la ciencia requiere. Estas categorías deben ser necesariamente físico-ontológicos e igualmente aplicables en todas las teorías físicas. (Neelamkavil, 2018: 54-55 y 57-58) Asumir Extensión-Cambio no pasa por admitir que, por ejemplo, filósofos y físicos comprendan la realidad bajo una misma perspectiva, y, menos aún, bajo un mismo lenguaje. De lo que se trata es de converger y complementar, bajo una reflexión híbrida y lingüística las cosmovisiones de cada una (física y filosofía) sin desmeritarse una a la otra.

“Converger” no significa “unificar” aunque tengan un fundamento metafísico común. Resulta impensable pretender unificar el lenguaje y cosmovisión de ambas disciplinas. Tal intención no es solo ingenua, sino también, quimérica. Si bien resulta innegable la existencia de la divergencia lingüística entre física y filosofía, tal dicotomía requiere ser adecuadamente comprendida bajo la reflexión de los estudios lingüísticos y dentro de los límites conceptuales. Es decir, la discrepancia entre el modo expresivo de cada ciencia se centra en la correcta distinción entre dos concepciones: ‘termino’ y ‘palabra’. (Coseriu, 1981: 96-97) La exigencia de las ciencias requiere para su progreso ‘significaciones’ que refieran de manera directa a fenómenos, objetos, eventos, etc. En fin, a la realidad *per se* y no a acepciones u otros usos lingüísticos. (Coseriu, 1981: 97) Es el uso e interpretación, en relación con la comprensión y aprehensión de la realidad, lo que determina la terminología en ciencia.

Entonces, se puede dividir el proceso para la comprensión y expresión de las percepciones y descripciones de la realidad fenoménica en ciencia en dos direcciones: (1) de los universales ontológicos presentes en los procesos de la realidad hacia la mente, y, (2) de la mente hacia el lenguaje que se muestra en la terminología científica. Ahora bien, de acuerdo a esto se hace necesario contar con categorías científicas que incluyan ambas direcciones del proceso de aprehensión y, al mismo tiempo, puedan satisfacer los requerimientos expresivos para la descripción, comprensión, y aplicación que demanda la ciencia y necesita la filosofía. Por mucho tiempo las nociones de ‘Espacio’ y ‘Tiempo’ cumplieron con este requisito.

Sin embargo, frente a la reciente evidencia empírica ofrecida por la neurociencia y la consideración temprana de las reflexiones kantianas que profetizaban los resultados a los que llegaron los neurocientíficos siglos más tarde se hace evidente que los términos ‘Espacio’ y ‘Tiempo’ no pueden seguir entendiéndose bajo las significaciones actuales.

En su lugar, ‘Extensión-Cambio’ en tanto nociones ontológicamente científicas-filosóficas pasan a referir a las antiguas significaciones y/o representaciones en ciencia y filosofía adjudicadas a los términos espacio-tiempo, espacio, y tiempo pero de una manera más adecuada al contener un carácter metalingüístico común a ambas (física y filosofía) y contemplar las dos direcciones en el proceso de aprehensión y comprensión de la realidad.

Desde esta perspectiva, se puede postular las significaciones y/o términos científicos bajo la acepción de ‘denotativos universales’ ya que la correspondencia que se establece en la terminología científica con la realidad posibilita el carácter metalingüístico de las nociones en ciencia y filosofía. De acuerdo a esta argumentación asumimos la definición de ‘denotativos’ de Neelamkavil en su libro *Gravitational Coalescence Paradox and Cosmogenetic Causality in Quantum Astrophysical Cosmology* (2018). En palabras de Neelamkavil:

All others are either sets of tokens or concepts. Concepts are denotatives involving connotatives / universals in their constitution along with the brain elements that are used to express the denotative. A denotative is a mixture of relevant connotatives with the relevant brain elements in their expression. As concepts



in language, they are representations of concepts in minds. These representations are linguistic entities, not brain entities. They represent concepts that have relevance to tokens (individuals) and natural kinds (types). Both tokens and natural kinds are thus laden by universals (connotatives) of types. Universals / connotatives are abstract objects (qualitatively differentiating properties of many). Most of the objects that possible worlds consist of or entail seem to be mere connotatives or denotatives. Thus, e.g., a set of tokens are a natural kind is a real world; a set of propositional truths that may or may not involve real natural kinds without their existence as objects of the truths can be a possible world. *Possible worlds take origin from natural kinds but may or may not entail natural kinds.* (Neelamkavil, 2018: 131)

Los denominados ‘universales connotativos’ son los vagos reflejos conceptuales de los universales ontológicos en la mente existiendo en esta como ‘formas’ o ‘modos’. Las palabras y los términos son las formulaciones de los anteriores en el habla y el lenguaje. A estas formulaciones basadas en universales connotativos, y, a su vez, en universales ontológicos, se les denomina ‘denotativos universales’.

Aceptaremos que los conceptos/términos científicos y filosóficos pueden concebirse como aquellos reflejos mostrados en el lenguaje pero que tienen su génesis en la mente (connotativos universales) y más aún en la Realidad-en-total en los tipos naturales que son a su vez, un grupo de procesos (ontológicos universales).

“Extensión-Cambio” se presentan como las nociones metalingüísticas que posibilitan la adecuada representación de los universales ontológicos; los cuales a su vez se encuentran subyacentes en las representaciones que se dan en la mente (universales connotativos) y que son expresados a través de la terminología científica (connotativos universales).

Dicho de otra manera: los connotativos universales pasan a referir a los términos teóricos que se dan en la mente a través del uso de los denotativos universales entendiendo estos términos teóricos como los llamados inobservables inexistentes. Los no observables existentes necesitan una corroboración físicamente aceptable para separarlos del concepto de “términos teóricos”.

Esta consideración permite dar un giro a las corrientes filosóficas que sostienen la denominada ‘ontología del lenguaje’ ya que, los denotativos universales (términos teóricos/inobservables inexistentes) rompen con la tradición semántica del llamado ‘atomismo lógico’ que, en su búsqueda desesperada por distanciarse de posiciones idealistas y neokantianas contempla una confianza excesiva en las categorías semánticas psicologistas. Alberto Coffa en su libro *La Tradición Semántica: De Kant a Carnap* (2005) sostiene:

La tradición semántica puede ser definida por su problema, su enemigo, su objetivo y su estrategia. Su problema fue lo *a priori*; su enemigo, la *intuición pura* de Kant; su propósito, desarrollar una concepción de lo *a priori* en la cual la intuición pura no jugara ningún papel; su estrategia, basar esa teoría en un desarrollo de la semántica (...) La tradición semántica no fue desarrollada por gente con intereses estrechos en los fundamentos de las matemáticas, sino por aquellos que sospechaban que el entendimiento de Kant de la aritmética, el cálculo y la geometría estaban basados en malentendidos irreparables y que esos errores viciaban su representación general de lo *a priori*. (Coffa, 2005: 47-48)

Los partidarios de la tradición semántica sostienen que la filosofía primera no es la metafísica u la ontología, sino, la semántica. (Coffa, 2005: 48) Asumir esta proposición otorga a la semántica un aspecto ontológico. Sostiene Coffa: “En las dos últimas décadas del siglo XIX la tradición semántica dio un giro hacia la ontología que enajenaría a aquellos empiristas que, por supuesto, querían evitar el idealismo, pero no al precio de comprometerse con el platonismo.” (2005: 145) Siguiendo este orden de ideas, Rafael Echeverría en su libro *Ontología del Lenguaje* (2003) pasa a sostener tres postulados

fundacionales para la ontologización del lenguaje: “(1) Interpretamos a los seres humanos como seres lingüísticos, (2) Interpretamos el lenguaje como generativo, (3) Interpretamos que los seres humanos se crean a sí mismos en el lenguaje y a través de él.” (Echeverría, 2003: 20)

De estas consideraciones se desprende una excesiva confianza en el alcance lingüístico que deja de lado el problema fundacional de la ciencia (inobservables) y genera una confusión en la significación y función del sujeto en el proceso del conocer y del acceso al conocimiento. En definitiva, la aceptación del llamado ‘lenguaje observacional’ (en detrimento de posiciones neokantianas) y su ontologización trae como consecuencia la omisión del papel de los inobservables en las teorías científicas. A partir de estas consideraciones, se da cuenta que la postulación de una visión absolutamente ontológica-lingüística no satisface las visiones amplias y completas que la ciencia requiere. El mero análisis lingüístico no logra nada más que algunas mejoras conceptuales simples en la ciencia física y la filosofía.

Es claro que toda teoría física está fundada en un conjunto de nociones primarias de las cuales los científicos y filósofos aún no han podido dar una completa y definitiva significación y/o definición, a pesar de que son el basamento de las teorías en ciencia. Energía, materia, espacio, tiempo, potencial, campo, entre otras, representan los conceptos sobre los cuales se soportan las teorías físicas, las cuales – teorías – han sido objeto de estudio por parte de la filosofía de la ciencia. Toda reflexión o estudio acerca de las teorías científicas no puede negar la presencia e importancia de los inobservables.

La estructura de las teorías científica no depende solo de una concepción lingüística sino que considera el devenir de la percepción de la realidad por parte del sujeto cognoscente, es decir, la realidad se hace presente a través de las multiplicidades que muestra el fenómeno, el cual, dicho sea de paso, es el reflejo de una realidad con carácter procesual que se encuentra en permanente “cambio” y, naturalmente, en permanente “extensión”.

De esta manera, no se puede sostener la ontologización del lenguaje como modo absoluto en el acceso al conocimiento. Si se persiste en adoptar una perspectiva irreductiblemente lingüística, entonces debe considerarse la duplicidad entre lo empírico y lo teórico y, al hacerlo, de manera inevitable se llega a develar, dentro de las estructuras de las teorías científicas, la presencia de los inobservables. De esta manera, sin importar el atisbo que se tome, toda consideración conducirá irremediabilmente al problema de los inobservables en las teorías científicas.

#### 4. CONCLUSIONES

Sostener la asunción de las categorías Extensión-Cambio de Neelamkavil se fundamenta en los hallazgos experimentales en neurociencia de 2014 y buscan comulgar dos áreas del conocimiento muy distanciadas: la física y la filosofía del lenguaje. Cuando Edvard Moser en 2014 gana el premio Nobel por el descubrimiento de las células *gridcells* quedaba por sentado que las nociones fundacionales que atraviesan todas las teorías físicas (espacio y tiempo) eran condiciones cognoscitivas del sujeto y no universales ontológicos (es decir, con existencia propia, o en términos de Neelamkavil, existentes procesuales). Espacio y tiempo son condiciones epistémicas que radican en el sujeto que conoce y no ‘cosas’ que existen fuera de nosotros.

Este descubrimiento empírico pasa no solo a soportar la filosofía kantiana (renovada) en cuanto a la consideración del espacio y del tiempo, sino que, además, deja en claro la necesidad de postular dos categorías metalingüísticas superiores a las cuales otorgar el carácter onto-conceptual y operativo-computacional de la ciencia. Con esta necesidad, la postulación de Neelamkavil parece llegar en un

momento en el cual una renovación lingüística-ontológica de nuestra representación de la realidad en física resulta necesaria. Si bien, las nociones de espacio y tiempo deben dejar de ser consideradas como entidades existentes (inobservables) esta consideración no pone en riesgo la garantía y la capacidad predictiva de las teorías físicas. Las nociones de espacio y tiempo (espacio-tiempo) no deben ser desechadas, sino, reinterpretadas lingüísticamente, y, más aún, ‘dibujadas’ acorde a los resultados empíricos encontrados por la ciencia. De lo que se trata es de cambiar el modo de describir la realidad con miras a tener una imagen adecuada del mundo. De esta manera, incorporar las categorías metalingüísticas físico-ontológicas de Neelamkavil (Extensión-Cambio) se funda entonces en esta necesaria ‘reinterpretación’ de nuestra imagen de la realidad, al tiempo que aproxima lingüísticamente a físicos y filósofos trayendo como consecuencia la disminución de la tensión entre la imagen científica del mundo y la visión científico-ontológica de la realidad.

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## 4. Digital gaming and cyber-security in Greek Public Schools

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### ABSTRACT

The ever-increasing use of digital technologies in everyday life makes it necessary to update students on digital security issues. The evaluation of digital games for this purpose is a new practice with many possibilities of application in the field of education. In the text that follows, issues related to the design of a digital role-playing game for digital security addressed to high school students are examined. The above are part of the broader action for digital trust in Greek education.

The more the internet, social networking applications, smart cars continue to be used by young and old, the more the research and academic community locates and covers the visions of needs stemming from this food. Thus, both at the European and at the global level, in recent years actions have been created (research and educational programs, training and continuous updating) for the establishment of digital trust and the safe use of the media. In this direction, a key goal of the European Commission's digital agenda for the 2020 initiative is "digital trust and security" (European Commission, Digital Agenda, 2012), which includes actions in more than 20 research sections, with one of them digital trust and safety in education (<http://ec.europa.eu/digital-agenda/en/creating-better-internet-kids>).

In this presentation we examine an update and training action implemented in Greece. This action, among other things, also aims at the development of a digital game that supports the education - updating of the high school students of our country. In the text that follows, issues of digital trust and security in education are discussed and the action is briefly described. In the sequel, the role of toys in the digital age is examined bibliographically, the design of the digital toy under development is presented and finally the conclusions are given.

**KEYWORDS:** digital security, ICT in education, digital role play.

### 1. INTRODUCTION - DIGITAL TRUST AND SECURITY

Since the middle of the previous decade, the Pan-European School Network (European Schoolnet, 2015) supports the Insafe network (<http://www.saferinternet.org/>), which is made up of 30 national information and support funds. In them, parents and children can find advice and help on internet safety issues. An important aspect of this network since 2010 is the "viewer participation" action (<http://paneuyouth.eu/>), which gives viewers an opportunity to have their concerns heard about technology issues that matter to them. The network also includes "esafetylabel" (<http://www.esafetylabel.eu/>), a pan-European accreditation and feedback service on digital trust issues.

In addition, cooperation networks at European level, such as the EU Kids Online Net ([www.eu-kidsonline.net](http://www.eu-kidsonline.net)), coordinate updating and training actions and exchange good practices between participating school teachers. In a 2012 survey (Smahel et al., 2012 and EU Kids Online – Final Report, 2011) current needs and problems are identified and suggestions and good practices are summarized

for educational institutions, parents, children, industry and y citizens more broadly, in matters of digital security and trust. Globally, governmental and non-governmental organizations such as Unicef (<http://tinyurl.com/kuzldvl>), the FBI (<http://tinyurl.com/3fenzjq>), the Inhope Network (<http://www.inhope.org>), the Organization for Economic Co-operation and Development (<http://tinyurl.com/cvr74eo>), Pew Internet (<http://www.pewinternet.org>) and others are actively engaged in the issues of digital trust against children age.

It should be noted that the research community has focused on the open issues that have arisen. In recent researches (O'Neill et al., 2013, and Van der Hof et al., 2014) issues and topics such as the creation of correct politicians and the development of good practices are covered and at the same time the weaknesses of the approaches used are indicated felt today. Issues such as content filtering, the effectiveness of online complaint and support lines, the measurement of the effectiveness of different information and awareness strategies, the interventions needed in the existing legal frameworks and the media operation tactics, and finally the role of the school for the promotion of digital literacy. The dilemmas of implementing policies in combination with children's rights are highlighted, and the conflicting issues raised by stakeholders regarding risk, privacy protection, and the balance that must be struck stands between the rights and the restrictions placed on children.

In another 2011 study (Australian Communications and Media Authority, 2011), the first part of the findings showed that a multitude of education and awareness campaigns have been implemented in relation to digital security issues. The study analyzed 68 national efforts and the main conclusions are summarized as follows:

- The dominant tools used in most campaigns were basic web sites and publications of informative material. The percentage of attempts that appreciated interactive tools, such as games and quizzes, was quite low.
- Government organizations (whether ministries or regulatory authorities) were mainly the bases of the campaigns, although joint ventures involving the private sector were also a frequent case. A smaller number of campaigns were hosted at community (municipality) level.
- The topics covered in these campaigns were quite diverse – there is no specific theme that stands out in the majority of actions.
- The target audience for the campaigns included in this study was also quite diverse – there is no single target group that dominated.

## **2. THE ACTION OF DIGITAL TRUST**

Since 2013, the act “Integrated digital trust enhancement services” has been approved and implemented. Its goal is to cover security and trust issues for Information and Environment Technologies (ICT) in education with an emphasis on the production of e-news and educational services/content as well as the production of digital security and trust services.

This goal is designed to be achieved through three actions:

- 1) the creation of an informative Digital Safety web portal, with the main objective of updating citizens (students, teachers, governors, etc.) on issues related to prevention and treatment digital security and trust issues. The creation of educational material as well as an interactive game on the topic of the safe use of computers and the internet is planned,
- 2) the implementation of an early warning system in relation to the vulnerability of the internet for the educational community, and finally



- 3) the creation of a strengthening mechanism of student computer security. The present paper focuses on the interactive game, which is implemented in the context of the action.

### **3. DIGITAL GAMING CAN BE A TARGET FOR CYBER ATTACKS DUE TO SEVERAL REASONS**

**Personal Data:** Digital gaming platforms often collect personal data from their users such as name, age, address, email address, and payment information. Hackers can target these platforms to gain access to users' personal information, which can be sold on the dark web or used for identity theft.

**In-game Currency and Virtual Items:** Many digital games have in-game currencies and virtual items that can be bought and sold with real money. Hackers can target these items to steal them or sell them on black market websites. This can result in financial loss for users and the gaming companies.

**Network Vulnerabilities:** Digital gaming platforms require a stable and secure internet connection to function properly. However, the network infrastructure that supports online gaming is not always secure. Hackers can exploit network vulnerabilities to gain access to gaming platforms and users' personal information.

**Phishing Attacks:** Hackers can send fraudulent emails or messages to digital gaming users, posing as legitimate gaming companies or platforms. These emails may contain links to fake login pages that trick users into providing their usernames and passwords. Hackers can use this information to gain unauthorized access to users' accounts and personal data.

**Malware:** Malware is a type of software designed to harm or infiltrate computer systems. Hackers can create malware disguised as digital games or gaming software that users download and install on their computers. Once installed, the malware can steal users' personal data, control their computers, or even demand ransom payments to regain access.

In summary, digital gaming can be a target for cyber attacks due to the personal data and financial information that gaming companies collect from users, network vulnerabilities, phishing attacks, and the potential for malware to be disguised as legitimate gaming software. It's essential for both gaming companies and users to implement robust cybersecurity measures to prevent cyber attacks and protect their personal data and financial information.

### **4. POTENTIAL CONSEQUENCES OF CYBER ATTACKS ON DIGITAL GAMING**

One example of the potential consequences of cyber attacks on digital gaming is the 2011 breach of Sony's PlayStation Network (PSN). The breach exposed the personal information of approximately 77 million users, including their names, email addresses, birth dates, and login credentials. It was later revealed that the breach had also compromised users' credit card information, resulting in financial loss for many individuals.

The breach caused significant damage to Sony's reputation and resulted in a loss of customer trust. Sony had to invest heavily in improving its cybersecurity measures and offering identity theft protection services to affected users. Additionally, Sony faced numerous lawsuits from customers and government agencies for failing to protect their personal data adequately.

The incident highlights the potential consequences of cyber attacks on digital gaming, including loss of personal data, financial loss, and reputational damage. Users' personal data can be used for identity theft or sold on the dark web, and financial loss can result from fraudulent transactions or stolen credit card information. Companies that experience cyber attacks can face significant financial



and reputational damage, and they may have to invest heavily in improving their cybersecurity measures and compensating affected users.

Therefore, it's crucial for digital gaming companies to prioritize cybersecurity and implement robust measures to protect their users' personal data and financial information. Users should also take steps to protect themselves, such as using strong passwords, enabling two-factor authentication, and being cautious about suspicious links or messages.

## 5. DESIGNING A GAME ABOUT DIGITAL SECURITY

In rapid development in recent years, digital games present great diversity in terms of technological background and design profile. The reason for this is the presence of many categories of digital games (puzzle games, role-playing games, action games, open world games, simulation games, multi-user games, etc.) with boundaries that are not always easily distinguishable. Digital games of all categories present some characteristics. According to McGonigal (2011), these elements are the existence of a goal in the game, the creation of rules governing it, the element of self-reliance and voluntary participation. Crawford (1982) states that the basic characteristics of digital games are the representation of a world, which is not necessarily real, interaction, conflict, and the safety of the player. Looking for a representative definition of the digital game we distinguish those of Salen and Zimmerman (2004) who define the digital game as a system where the players are involved in physical conflicts. These conflicts are defined by specific rules and have quantifiable results.

Digital role-playing games (Role Playing Games) are a separate category of digital games, where players take on the roles of real characters, set in a specific narrative context. Following a rather complex system of instructions, players are called upon to make decisions that will determine the outcome of the game. Role-playing games can be addressed to a single player (single-player games) or to many players at the same time (multiplayer games). The element of interaction is unique to role-playing games as it concerns not only the player's relationship with the game's environment, but also the players' relationships with each other. When participating in a role-playing game, the player has the possibility to choose the special elements of the character that will represent him in the game. In addition to the characters that are controlled by the players (player characters), there are often non-player characters that operate independently in the game's environment.

According to Huizinga (1955), the game takes place in a protected space, a "magic circle" defined and energized by the child's emotions. The beginning of the game marks the processing of this magic circle, in a safe microcosm that is not affected by the real world of the player. The idea of the magic circle finds application in digital games, as their design and technological characteristics favor the creation of a stable framework for the game's operation. The delimitation of the magic circle can vary unreasonably with the nature of the child. Salen and Zimmerman propose the study of digital games as open or closed systems, validating Littlejohn's (1989) views on systems. The following researchers argue that digital games are understood in three different ways: as toys, as a game, or as a cultural element. The understanding of the game as a series of cables implies that the game as a system has little or no coexistence with the external environment and solid cores of the magic of the circle. However, the child's relationship with his environment is not monolithic. Digital games often have both closed and open relationships with the wider environment. The recommended educational digital game for the digital safety of students is based on the diagram of cables, claiming the existence of a safe cycle of activity and interaction of students during the game.

Participation in digital role-playing games, according to Squire (2006), gives players the opportunity to develop designed experiences, i.e. digitally mediated experiences, according to which learning occurs through doing and being in a digital space. It should be noted that the growing interest in the value of digital games in the field of education works in parallel with the broader rapid development of digital games. In this direction, Larsen et al (2012) point out that digital games are based on solid learning principles, allow greater student participation, offer personalized opportunities for learning, provide authentic assessment environments and teach the learning 21st century skills (collaboration and information skills, survival, thinking and problem solving skills). They argue that digital games contain a unique combination of elements that can be observed in an educational innovation such as providing motivation, adaptability, collaboration, simulation, participation and data collection. On the other hand, Kirriemuir & Mcfarlane (2004) distinguished the reasons why earlier efforts to develop specialized digital teachers of children did not work. According to Kirriemuir & Mcfarlane educational games have been overly simplistic compared to commercial digital games. It includes repeated tasks of the same type with the result that the player loses his interest. In many digital games, the task design did not correspond to high demands and did not support the player's progressive learning. In some cases the activities supported by the games were limited as they focused on a skill or the accumulation of educational content. Finally, in many educational games the players had the feeling that they were "forced" to participate in the learning process.

## **6. GAME DEVELOPMENT FOR DIGITAL SECURITY**

The game, which is developed in the context of the Digital Security action, has as final recipients the students of the A' Gymnasium and aims to familiarize the players with possible risks from the use of computers and the internet, exposing them to them in a safe manner. The players are invited to cultivate their critical thinking and discover/appreciate potential pitfalls by developing skills, acquiring skills and cultivating a new outlook, that of safe internet use. For the purposes of the game, subject matter is appreciated, which covers a wide range of digital security and trust issues and topics (e.g. invasion of privacy, exposure to harmful content, viruses, addiction, cheating, etc. l.), such as these are reflected in the modern literature.

The story unfolds in a hypothetical city, where the player moves and acts during class or after school. Having a finite number of animals available, he takes initiatives, thinks and evaluates all the data available to him and determines the effects of the visual character in accordance with the system of cables and directions of the child. They also determine the score. The ultimate goal of the game is the player's two-fold greatest achievement in the game.

The game is a simulation-style game where the player takes on the role of a student in a city, and they must navigate their way through various challenges and situations. The player can move and act during class or after school, and they must make decisions that will impact their score and their success in the game.

One of the unique features of the game is that the player has a finite number of animals available to them. These animals act as a sort of currency in the game, and the player must use them strategically to achieve their goals. For example, the player may need to use an animal to bribe someone or to gain access to a certain area.

As the player navigates through the game, they must take initiatives and evaluate all the data available to them to determine the effects of their actions. For example, the player may need to decide

whether to participate in a protest or to stay out of it, and they must weigh the potential risks and benefits of each choice.

The game also incorporates a system of cables and directions, which the player must use to determine the effects of their visual character. For example, the player may need to choose a certain outfit or hairstyle to gain the approval of a certain group of people, and they must use the cables and directions to determine the impact of their choices.

The ultimate goal of the game is for the player to achieve two-fold success. This could involve achieving a high score and reaching a certain level of achievement, or it could involve achieving specific goals within the game, such as gaining the support of a certain group or completing a difficult challenge.

Overall, this game combines elements of simulation, strategy, and decision-making to create an engaging and challenging gameplay experience. The use of animals as a currency and the incorporation of cables and directions adds a unique twist to the gameplay, while the focus on achieving two-fold success provides a clear goal for the player to work towards.

More specifically, the player can configure his “role” by influencing parameters of his visual character, such as physical activity, computer usage habits, school performance, number of friends, weekly card pocket money, and the available portable devices. Subsequently, the profile elements are correlated with score parameters. For example, the importance of digital popularity and friendship for the player, his need for computer entertainment, and expectations for his school performance, as registered by the player himself during the “construction” of the iconic character, are related to his response to specific challenges and affect the score, both in terms of the degree of fatigue, fun, and risk as well as in terms of digital activity, the evolution of school performance, his physical condition and the change in his mood.

The dimension of time is a floating element of the game that affects the following correlations, as each activity has its own predictable duration. The time in the game is determined by a clock that runs in “activity time”. Thus, regardless of the load of the day, as it is described each time by the severity of the activity, more involvement in the online game can raise the score in fun but decrease it in terms of fatigue and school performance or even cause tension at home affecting the score on the family situation.

In addition, the game includes features and material that allow it either to be played by the students outside the school environment or to be appreciated by the teacher in the context of the school classroom. Something like this is achieved by specific differences in functionality, in each of the two cases. At the same time, there is the possibility of playing with one or more players. Recommended valuation practices are as follows:

- All students together in the classroom: with the help of an interactive table, everyone plays a game together (single player version)
- Teams of two or three players in the workshop: each team plays its own game in front of its own computer (single player version)
- Teams of two or three players in the laboratory: all teams participate in the same game with simultaneous access from separate computers (multiplayer version)
- A class in a school plays with another class of the same or different school (multiplayer version)

Finally, the game’s environment offers the possibility of recording the players’ action as it evolves. Thus, the possibility is given to the teacher to observe from behind but also to show the flow of the child to his students in video format and to discuss with them their choices, offering feedback and effects. unforgettable.

## 7. CONCLUSIONS

Digital gaming has become increasingly popular among children and teenagers, and many Greek public schools have started incorporating gaming into their curriculum to engage and motivate students. However, this also raises concerns about the cybersecurity risks associated with gaming in schools.

One potential risk is that students may be exposed to inappropriate content or harmful online behavior while gaming in school. Hackers may also target gaming platforms used in schools to gain access to students' personal information or school networks.

To address these risks, Greek public schools must prioritize cybersecurity measures when implementing digital gaming in their curriculum. This can include:

**Educating Students:** Schools can educate students about the potential risks associated with gaming, such as phishing attacks, malware, and inappropriate content. Students should be taught about safe online practices, such as using strong passwords, avoiding suspicious links, and not sharing personal information.

**Restricting Access:** Schools can restrict access to gaming platforms and ensure that only authorized users can access them. This can include implementing firewalls, antivirus software, and two-factor authentication.

**Monitoring Activity:** Schools can monitor students' activity on gaming platforms to identify any suspicious behavior or activity. This can help prevent cyber attacks or inappropriate behavior and ensure that students are using the platforms appropriately.

**Implementing Data Protection Measures:** Schools should ensure that students' personal information is protected and that data privacy regulations are followed. This can include encrypting sensitive data, restricting access to personal information, and regularly backing up data.

By prioritizing cybersecurity measures, Greek public schools can ensure that digital gaming is a safe and secure learning tool for students. This can help prevent cyber attacks, protect students' personal information, and ensure that gaming platforms are used appropriately.

The role-playing game described below is developed in the context of the action to update and educate high school students on digital security issues. It is currently in the implementation phase with a timetable for completion at the beginning of the next school year (2015-16). Of central interest to the design and development of the game is the provision of a protected digital space, where players can experiment with practices related to digital security. By participating in specially designed activities, players have the possibility to interact with the system and with other players and learn from their experiences how to use digital technologies safely.

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## 5. The intercultural approach to training of Human Resources in the public hospital Sector in Greece

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### ABSTRACT

The purpose of this doctoral thesis was to highlight the cross-cultural competence and adequacy of the human potential of health services within a specific culture to provide holistic care to people of different cross-cultural groups, to address inequalities in the health sector. For a better overview and analysis, we specialized our research in the case of Thebes General Hospital. The purpose was covered through quantitative research, based on an online distributed questionnaire and through qualitative research, based on structured interviews. The quantitative research's sample was ninety employees of Thebes General Hospital. The qualitative research's sample consisted of seven directors and managers of Thebes General Hospital. The quantitative research results proved that the employees of the Thebes General Hospital have moderate intercultural adaptability the research results of the qualitative research proved that health professionals have sufficient intercultural competence and can serve and provide quality health care services to culturally diverse populations.

**KEYWORDS:** Hospitals, Human Resources Training, Intercultural Adaptability.

### 1. INTRODUCTION

#### 1.1. Aim and Objectives

The purpose of this doctoral thesis is to highlight the intercultural capacity and adequacy of the human resources of health services within a specific culture in order to provide holistic care to people of different intercultural groups, to address health inequalities. Focusing on the functioning of the public hospital sector, at a time of great and rapid changes taking place in the field of health. The main variables which will be researched and analyzed, through our quantitative research, and which will be analyzed through the literature review of this dissertation are the internationalization of the regulatory role of education in the public hospital sector in order to change their philosophy and become more efficient. For a better review and analysis of the current issue, we specialize our research on the case of a local hospital in Greece. Through a bibliographical report it has been shown that, the training in the operation of an organization are mechanism that has particularly positive results in various areas of clinical practice and the quality of the services provided. In particular, the efficiency of health professionals is significantly improved by improving knowledge and skills, by acquiring critical thinking about the functioning of health services through the application of innovative practices (Brazil et al., 2010). The lack of research studying the organizational culture and training of human resources in the public hospital sector in combination has been identified in the context of their intercultural approach. This gap in the literature is intended to be filled by the combined investigation of these factors. In addition to contributing to the theoretical level, the conclusions drawn from our research can be used at a practical level in the design and implementation of practices in the management of the human re-



sources of public hospital units and in improving their operation by providing a higher level of health services as well as raising awareness among decision-makers about education and health policies for both patients and healthcare providers. The importance of this survey is reinforced by the fact that it is called upon to meet a number of objectives, the achievement of which can be considered useful for the improvement and development of public hospital units. In more detail the objectives of this thesis are set out as follows: The main objective of this research effort is to highlight the intercultural capacity and adequacy of the human potential of health services by:

- Identifying the concept of education in the intercultural approach of health professionals and how it affects the operating framework of hospital units.
- Education policies for the purpose of Education policies aimed at introducing health care curricula and educating health professionals on intercultural issues.
- Defining the modern needs and challenges of health professionals
- Identifying the emergence of the dominant type of culture that characterizes Greek hospitals.
- Identifying the intercultural human resources skills in health units as a tool to promote physical and mental well-being.

Our research hypothesis, which we are going to accept or reject through the quantitative research, to which we will proceed through this doctoral thesis, is that human resources training correlated to the positive and productive change and arrangement of human resource management of a chosen, by the researcher, Greek hospital. Human resource training will be the independent variable, while intercultural competency will be the dependent one.

## **1.2. Significance and contribution to knowledge**

The modern era is characterized by a trend of change, and the great economic crisis at global level, makes it more necessary than ever to manage the human resources that coexist and interact within each organization. Aligning the actions of the manpower of an organization through an approach that the desired goals are achieved through the implementation of human resources practices (Geertz, 1983). The alignment of the actions of the managerial staff with an approach that the desired goals are achieved through the application of human resources practices is applied to the shaping spreading of the organizational culture in order to achieve the strategic objectives. As a result, they will feel committed and will seek high performance by knowing why they should work in that way (Frost et al., 1985).

The healthcare sector is following the same path in a highly competitive environment that requires a new way of organizing and operating to avoid obsolescence. In order to succeed in trying to apply new principles in the same hospitals, shaping the right culture is a one-way direction (Tharp, 2009). Greek hospitals, as living organisms are called upon to face the pressures for better quality of services, for better organization and operation of the whole process, the possibilities of developing and implementing new principles as a necessity. Hospitals have special characteristics that differentiate them from other organizations and give them a special value from other organizations. Adapting them to the modern environment requires substantial changes to ensure their survival. In this context, organizational culture (Cameron & Quinn, 2006; Cameron, 2007), is the key to the successful operation of hospitals. There is a significant development of interest with the management of culture as a key component in the reformation of organizations and in particular of health care units (Scott et al., 2003). Through its international literature, its decisive role in maximizing the value of human capital

is highlighted. Its management emerges as a critical administrative capacity. The transfer and creation of knowledge requires the presence of organizational culture, in which individuals and groups collaborate and share knowledge with common interests, employees to be efficient and innovative, to create a space for critical thinking and discussion, as well as to create a sense of safety and encouragement in the workplace so that employees can be distributed knowledge but also to retain the data within an entity (Deal & Kennedy, 1982).

The role of human resources is important for the direction of the production of health services, for the provision of care to citizens and for the exercise of an efficient health policy. Human resources management is an administrative function for the study, supervision, and implementation of a range of activities related to the management and development of staff (Apospori et al., 2008).

Education is crucial for the creation of responsible professionals as the most important lever for the implementation of health policy, in order to take on expanded roles and express the philosophy of the good “*health*”. The health sector can offer social work, but its human resources participate in one of the most systematic and costly purchases of goods and services. Human resources are often exposed to significant risks and problems due to their location and the nature of their work (Degrie et al., 2017).

Health professionals often manifest various psychosomatic conditions due to occupational burnout (Escriba Aguir et al., 2007). Occupational burnout of doctors and nurses can cause problems associated with cardiovascular diseases, musculoskeletal diseases, cancers due to exposure to stress and radiation as well as manic disorders, depression, and panic attacks (Leiter, 2017). The health system is a system characterized as a “*work-intensive system*”. Compared to other organizations, the operation and organization of hospitals is peculiar. These refer to the need for continuous development, the high degree of division of labor, their complexity, and their multi-layered structure. Also, the public hospital sector presents two forms of power, that exercised by law through the governor of the hospital and the other power comes from the caste of doctors. The differences that arise between the public hospital sector and other organizations concern not only the administrative level, but also the level of organization (Kostagiolas et al., 2008).

Health professionals are called upon to offer services in a social situation that is constantly changing and becoming more and more pressing every day, as people from political systems oppressively seek political asylum, others are still victims of war and economic migrants (Da Costa et al., 2017). Moreover, health professionals are able to offer specialized services to people of different cultures, when they themselves are trained on how political, historical, intercultural, social, and economic factors determine their lives and lives (Zyga, 2010). In their daily lives, health professionals take an intercultural and multi-system approach to promoting and maintaining health, considering the social background of families and how they behave towards health and disease. Interculturalism is a way of managing intercultural diversity and should not be confused either with the assimilation policy that does not accept otherness as a possible situation by balancing the system with homogenization, nor with political relativism where equality of cultures is a fundamental principle in a struggle for social justice, for constitutionally guaranteed equality of ethnic groups, in order to highlight their particular intercultural identities (Martin, 1992; Ott, 1989). The intercultural approach is based on the recognition of otherness, social cohesion, equality, and justice provided that we do not intend to challenge the legitimacy of the national state. People’s intercultural identity significantly shapes beliefs and practices in the field of health, which is why all health professionals must have the appropriate training to offer services in an efficient and interculturally appropriate way (Young & Guo, 2016). Internationally, there is a tendency to develop an intercultural framework for lifelong learning, which means that

the acquisition of intercultural competences and the corresponding knowledge base can lead to the provision of care with intercultural competence (Papadopoulos et al., 2011). The intercultural competence of health professionals can provide appropriate care to populations with different cultures. As migration flows increase worldwide, models of intercultural competence development among health professionals in the public hospital sector are timelier than ever. Health professionals are faced with a new social reality, as they are asked to offer their services to patients with different intercultural backgrounds in order to acquire intercultural competence, so that their intercultural sensitivity can be developed, free from stereotypes and false views. Leininger (2002) describes intercultural care as a care that recognizes intercultural diversity and focuses on the intercultural needs of the patient and his family. Such models apply in North America and Europe. Intercultural education was born in response to the need to redefine the relationship between education and multiintercultural society and is the bridge that allows two or more cultures to communicate (Da Costa et al., 2017).

Proper education sensitizes executives to cultures other than their own and leads them to conclude that no culture can always be right. Intercultural education seeks to develop managers' self-knowledge in different intercultural environments and to understand the innate logic of a culture's standards and expectations, the ability to appreciate the views of other cultures rather than judge them, intercultural communication, flexibility to adapt to his plans and expectations according to the requirements of each country's culture, intercultural resilience to intercultural differences, the ability to manage the differences between cultures constructively. Intercultural education contributes to the values and rules. Many aspects of human resource management are affected by differences in national cultures. The degree to which intercultural human resource management is successful depends on the manager's ability to understand and balance values from other cultures. In the field of human resources, "*integration*" means respecting local cultures for human resources' training and rewarding employees, while maintaining the core values. The other level of integration that managers are concerned with is organizational culture and employee values and is essential to job satisfaction, increased performance, and employee engagement (Denison, 1990). This integration is achieved through training and human resources development.

This integration is easier in "*weak*" cultures than in "*strong*" ones, because in the former there are no strong social values that restrict the behavior of individuals and cause their resistance to change. In an effort to analyze human resource management in an intercultural context, there are three levels of social, individual, and organizational. Especially in the 21st century, at a time of constant changes, liquidity and uncertainty, the health sector must adapt to the changes that have taken place, such as the diversification of the needs of health service recipients and the development of the disease as a multifactorial phenomenon requiring teamwork and an interdisciplinary approach (Moumtzoglou, 2018). The public hospital sector, in order to be able to meet new challenges in order to improve its efficiency and provide high quality services, must redefine the model of organizational culture it adopts in such a way that the human factor is at the heart of every business process. Different countries tend to apply alternative management models, but there is a tendency for leadership styles to follow the country's wider culture and general way of life. For example, in areas where there is close contact between workers such as, in this case in Greece and Spain, the leadership style is less authoritarian than in China or other Asian countries (Alexander et al., 2015). At this point, it is mentioned that the health system is a labor-intensive system because it employs a large number of different education and training staff with a very high division of labor. The role of human resources is extremely important in the direction of production of health services, the healthcare of citizens and the pursuit of efficient and

effective health policy. The human resource management is used to describe administrative activities and the functioning of the administration (Anderson et al., 2014; Torrington et al., 2017). Mondy & Martocchio (2018) define Human Resource Management as “*the use of individuals to achieve organizational objectives*” (p.3). Human resources management is influenced by differences in national cultures. Culture differentiates the functionality of human resources in health units.

The intercultural adequacy and capacity of human resources in the field of health depends on the ability of the manager to balance and understand the value capital of other cultures. Issues, such as for example the receptiveness to change, the relationship between individual and group and diversity as a component of harmonization of different cultures, create the need to be able to combine differentiation with the unity of the common goal. Human resources are the mechanism that fills the gap between the organizational culture of the service and the organizational culture of the host country. In our effort to analyze the management of human resources interculturally we identify the different levels of human resources, such as organizational, individual, and social. From the organizational and individual level, the integration of the organizational culture with the culture of the country “*host*” and the organizational culture with the merit level of the human resources of this country (Cameron & Ettington, 1988). Furthermore, human resources are considered to be the most important productive factor in the public hospital sector. The proper exploitation of human resources demarcates the administrative work. The training of health professionals is an obligation and a necessity. Lifelong learning is an investment for every health organization, improving the skills and skills of human resources (Cameron & Ettington, 1988). Human resources training aims to meet specific objectives, such as increasing the efficiency and productivity of services by upgrading quality, supporting employment, and creating new opportunities, promoting equal access for citizens to health services and harmonizing education with organizational and operational changes in the National Health System, linking theory to practice (Cameron, 2008; Knowles, 1998).

The cornerstone of management theory is that human resources are managed with the aim of maximum productivity and the fulfilment of an organization’s goals. In the public hospital sector, the efficiency of the staff depends on the incentives provided, the satisfaction of the employee in relation to his work, as well as his training and lifelong education. The management of human resources requires methodical and systematic study. Management must set priorities and make appropriate planning in a timely manner. In the field of health, the most important priority is education – practice from the early stage of the individual’s professional life and throughout its duration. Education is crucial for the creation of responsible professionals as the most important lever for the implementation of health policy, in order to take on expanded roles and express the philosophy of the good “*health*”. The role of human resources is important for the direction of the production of health services, for the provision of care to citizens and for the exercise of an efficient health policy. The development of human resources in Greece has been unplanned. No central national planning has been implemented nor policies designed to link the health system to the education system and to balance the supply of human resources with the demand for health services. Lewin et al. (2005) reported that continuing education results in better collaboration between different health professionals, more effective cooperation between them, more effective problem solving, reducing patient time, and improving employee-patient relationships. Improving these relationships leads to organizational change and internal health care reform (Gregory et al., 2009).

Health professionals’ performance can be significantly improved by combining education and strengthening health systems (Cameron & Quinn, 2006). Education is crucial for preparing and cre-

ating responsible professionals who will be the most important driver of health policy implementation, take on expanded roles and express the philosophy of good health. Many aspects of human resource management are affected by differences in national cultures (Hadziabdic et al., 2016; Leo et al. 2016; Lin et al., 2016). Human resources have a prominent role in the production of health services and in the exercise of efficient political health. The specificity and complexity of the health sector requires different education and training of human resources, in order to meet the criteria of efficient use of resources and the satisfaction of the demand for health services. Continuing training for health professionals is one of the key human resource management practices in health services, as it can significantly improve the knowledge, skills, and performance in performing tasks. Transfer and creation of knowledge requires the presence of organizational culture in which individuals and groups collaborate and share knowledge with common interest. Knowledge based culture helps an organization change its attitude, employ aptitude for employees to be efficient and innovate, create space for critical thinking and discussion, as well as create a sense of security and encouragement at work environment, so that employees can disseminate knowledge and maintain this data within the organization. Organizational culture is the “*key*” to the evolution of health organizations and their more efficient operation (Azzolini et al., 2018).

## **2. RESEARCH SAMPLE AND SAMPLING METHODS**

The research sample consists of ninety employees of Thebes General Hospital. The research population was all the employees of this specific hospital. In order to gather an increased number of participants in the narrow time frames available to us to complete this thesis, we used the random sampling method. The only criterion that the individuals had to meet in order to participate in the research sample of this research was to belong to the human resources of the Thebes General Hospital. During random sampling, anyone who received the questionnaire and accepted the terms of participation could participate in this research (Emerson, 2015). At this point, it is clarified that the questionnaire was sent to a total of 140 people working at the general hospital of Thebes. Of the 140 questionnaires that were sent, 97 were returned answered. However, during the coding and correctness control of the research data, seven questionnaires were rejected due to incomplete answers. Thus, we ended up with the research sample of ninety employees of Thebes General Hospital. Random sampling was used to collect the research sample that participated in the interviews, i.e. qualitative primary research. More specifically, the research sample of the qualitative primary research consists of five people who have leadership and administrative positions in the general hospital of Thebes.

## **3. RESEARCH TOOL**

The research tool used in the quantitative research conducted in the context of this thesis was a fully structured questionnaire. The questionnaire, more specifically, consists of four different parts of questions. In the first part, demographic information about the participants is collected. These are six closed questions. The last part of the questionnaire consists of the HRM Training Questionnaire scale of Snell & Dean (1992), to determine the training levels of employees in the general hospital of Thebes. Participants were asked to rate seven statements on a five-point Likert scale. The research tool of the qualitative research conducted in this thesis was a structured interview guide, which consists of seven open-ended questions.



#### **4. COLLECTION OF RESEARCH DATA**

The research data are the responses given by the participants to the questionnaire and the interviews. The first ones are quantitative research data, which were collected electronically. More specifically, Google Forms was used to collect the research data. Through this platform, the questionnaire was sent by e-mail. Answers are automatically entered into an excel file that was configured by Google Forms. The research data collection period ranges from December 2, 2022 to January 13, 2023. Once the collection of research data was completed, it was time to code the first part of the questionnaire to convert the demographic characteristics into numbers (Kumar, 2018). Numerical research data were then entered into SPSS to begin statistical analysis. Descriptive and inductive statistics were used in the statistical analysis. In the context of inductive statistics, the Pearson correlation test was performed, as well as factor analysis. In the correlation tests confidence levels were set at 95%, therefore, statistically significant results occur when  $\text{sig.} < 0.05$ . Also, in the groups of questions from which corresponding variables were formed, Cronbach's Alpha reliability tests were carried out. No variable could be formed from the set of corresponding sentences if the reliability coefficient levels did not vary above 0.7. Regarding the collection of the research data of the primary qualitative research that was based on the structured interviews, it is a process that was done by telephone. Conducting the interviews over the phone became necessary also due to geographical distance. For the collection of the qualitative research data, initially, a first approach was made by the researcher with each interviewee separately, for reasons of planning the conduct of each interview. The interview period is between November 1, 2022 to January 31, 2023. During their conduct, the interviews were recorded, while the process of transcribing followed and using semiotic analysis, the emotional and other reactions of the interviewees were recorded where these were identified by the researcher. The presentation of the research results is done through the thematic analysis, while in this context specific Keywords are marked in bold letters that confirm the conclusions drawn and the Keywords that follow.

#### **5. RESEARCH ETHICS**

In order to carry out this research, all the participants were made aware of the preservation of their anonymity, of the non-publication of their personal and sensitive data. In particular, the participants in the interviews were informed about the filming and recording of the conversations, as well as about the subsequent deletion of said files, after the completion of the transcription process by the researcher. All the participants, in addition, were made aware of the academic nature of this research, of its purpose, but also of the voluntary nature of their participation.

#### **6. QUANTITATIVE RESEARCH RESULTS**

The majority of 86.7% of the research sample consists of women and the remaining 13.3% consists of men. The majority of 60% of the participants are between 36-55 years of age. The 28.9% of the participants are between 18 and 35 years old. Finally, the remaining 11.1% of the research sample are over 56 years old. 38.9% of the participants are university educated. 24.4% of the participants consist of postgraduates. 4.4% of the participants are made up of people who have



completed further training - specialty. 2.2% of the participants consist of people who have a Ph.D. Finally, the remaining 30% of the research sample consists of people who stated that they have received other education beyond those mentioned above. Regarding the years of service of the participants, 41.1% consists of people who have service between 5 – 20 years. 26.7% of the participants consist of people with more than 21 years of experience. 21.1% of the participants are people with 2-5 years of experience. 11.1% of the participants consist of people with less than two years of experience. Thus, it follows that 32.2% of the research sample consists of people with up to five years of experience. Regarding the department in which the participants in this research work, the results shown in the table below show that 30% of the participants work in the clinical sector. 18.9% of participants work in administration. 10% of participants work in the field of surgery. 3.3% of participants work in the laboratory sector. One participant (1.1%) works in the cardiology department. Finally, the remaining 36.7% of the participants stated that they work in another department. 56.7% of the research sample consists of people who stated that they are not a chief department and 43.3% of the research sample consists of people who stated that they have a chief department's position.

## **7. INTERCULTURAL ADAPTABILITY**

Participants were asked to rate a series of sentences on a scale ranging from one to five, depending on the degree to which they apply to the participants, concerning their intercultural approach. The highest mean scores are observed in the sentences “I believe that all cultures have something worthwhile to offer” (4.78), “I believe that all people, of whatever race, are equally valuable” (4.73) and “I feel free to maintain my personal values even among those who do not share them” (4.46). The lowest mean is concentrated in the sentences “Impressing people different from me is more important than being myself with them” (1.73), “When I meet people who are different from me I tend to be judgmental about their differences” (1.94) and “People who know the world would describe me as a person who is intolerant of others' differences” (2.01) which means that these sentences don't represent beliefs with which participants agree. The results show that the open-minded (4.09) and the social intercultural approach (3.63) are applied to satisfying extent from the participants. The self-demonstrating (3.45) and the egocentric intercultural approach (3.08) are applied to moderate extent from the participants. To a small degree, the critical (2.53) is applied, as well as the non-understanding intercultural approach (2.53) are applied. These are the two types of intercultural adaptability that show the lowest mean scores. The total mean score of participants' intercultural adaptability is 3.21 out of 5.00, which means that their intercultural adaptability is moderate.

**Table 1.** Correlations between types of intercultural adaptability and demographics

		Gender	Age	Education	Years of service	Field of work	Chief department's position
Open-minded	Pearson Correlation	-,098	,128	,155	-,093	,173	-,150
	Sig. (2-tailed)	,356	,230	,146	,384	,103	,159
	N	90	90	90	90	90	90
Self-demonstrating	Pearson Correlation	-,216	,171	,190	,042	-,030	-,067
	Sig. (2-tailed)	<b>,041</b>	,108	,072	,691	,779	,531
	N	90	90	90	90	90	90
Social	Pearson Correlation	,085	-,153	,069	-,276	,137	-,029
	Sig. (2-tailed)	,426	,149	,516	<b>,008</b>	,198	,785
	N	90	90	90	90	90	90
Egocentric	Pearson Correlation	-,148	,177	-,037	,177	-,234	-,088
	Sig. (2-tailed)	,163	,094	,728	,095	<b>,026</b>	,407
	N	90	90	90	90	90	90
Non-understanding	Pearson Correlation	-,142	,155	,167	,014	,168	-,133
	Sig. (2-tailed)	,182	,145	,116	,894	,115	,213
	N	90	90	90	90	90	90
Critical	Pearson Correlation	-,102	,102	,208	,015	-,031	,080
	Sig. (2-tailed)	,341	,339	<b>,049</b>	,889	,770	,453
	N	90	90	90	90	90	90

## 8. HUMAN RESOURCES TRAINING

Participants were asked to rate a series of sentences on a scale ranging from one to five, depending on the degree to which they apply to the hospital in which they work concerning the human resources training. The results show that the HRM training policy has an overall mean score of 2.51 which is not satisfying. In order to test the relationship that exists between HRM training and the demographic characteristics of the participants, we perform a Pearson correlation test between the HRM training and the demographics. The results show that participants that hold a chief department's position receive more HRM training programs than the other ones.

**Table 2.** Correlations between HRM training and demographics

		<b>Gender</b>	<b>Age</b>	<b>Education</b>	<b>Years of service</b>	<b>Field of work</b>	<b>Chief department's position</b>
Training	Pearson Correlation	,148	,045	-,029	-,042	-,117	-,232
	Sig. (2-tailed)	,163	,671	,786	,692	,273	<b>,027</b>
	N	90	90	90	90	90	90

**Table 3.** Types of intercultural adaptability to HRM training

Open-minded	Pearson Correlation	,211
	Sig. (2-tailed)	<b>,046</b>
	N	90
Self-demonstrating	Pearson Correlation	,143
	Sig. (2-tailed)	,179
	N	90
Social	Pearson Correlation	,257
	Sig. (2-tailed)	<b>,015</b>
	N	90
Egocentric	Pearson Correlation	-,075
	Sig. (2-tailed)	,483
	N	90
Non-understanding	Pearson Correlation	,092
	Sig. (2-tailed)	,386
	N	90
Critical	Pearson Correlation	,110
	Sig. (2-tailed)	,304
	N	90

## 9. QUALITATIVE RESEARCH RESULTS

Four of the five interviewees are women. All of the five interviewees have a position of responsibility and more specifically belong to the hospital administration, while one female participant has the position of chief of department and the male participant has the position of manager. Participants were asked to define if health professionals are able to offer specialized services to people of different cultures, according to their point of view. It is concluded that health professionals have efficient intercultural competence. Human resources are very important for the participants' organizations.

## 10. DISCUSSION-CONCLUSIONS

Globalization enhances global integration and interdependence in areas such as economy, politics, culture, technology, ecology, social life, and health while driving events occurring in a particular part of the world at high speed to affect the rest of the world. Inevitably, people, social relations and cultures are interconnected on a global scale. Among other things, the health sector was significantly affected by the process of globalization as nurses and other health professionals were faced with the need to support skills that until then were foreign to their training or even unrelated to their main work. Associating with people from different cultures and civilizations who may differ radically in opinions and perceptions even on issues that are self-evident to everyone can create serious problems in the provision of nursing services. The main problem encountered lies in the difficulty of communication between nurses and patients. The absence of official and qualified interpreters, as well as other intercultural mediators in hospitals and the rest of the country's health structures, can create difficulties both in accessing these health units and in compliance with treatment. Add to this the lack of cross-cultural communication skills by the majority of nurses and health professionals, as well as the fact that social and cultural perceptions of people's health differ significantly around the world, and it is very likely that confusions will arise that can harm patients. From the point of view of the provision of health services as there will not be the necessary understanding and response between nurses and patients. On the contrary, nursing care provided with recognition and respect for cultural specificity contributes to patient satisfaction and, by extension, contributes to improving the effectiveness of the health care provided. Overall, the need for more individualized, culturally adapted care and support and the need for systematic education about intercultural nursing already in the first years of nursing studies, is identified. The recognition and knowledge of the differences that exist between different cultures has pushed nursing schools, globally, to re-evaluate the study model and the values that should be taken into account when practicing nursing work. Through the literature review of this thesis it was clear that nursing students show many attempts to be culturally sensitive, and made efforts to be properly prepared for what they would encounter but in some cases this was not enough. Also, their exposure and keen observation led them to have some basic cultural skills in cross-cultural communication and sensitivity. This means that in addition to theoretical training during studies, practical experience with contact with people of different cultures is also required. Overall, nowadays, nurses and other health professionals are asked beyond their clinical skills to be able to adapt them to a cultural context that differs between individuals coming from different cultures, showing the necessary respect for the diversity of individuals and the ability to adapt to them.

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## 6. Needs Analysis in ESP (English for Specific Purposes): The Case of Technical Bakers - Confectioners in a Public Vocational Institute in Greece

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### ABSTRACT

The present paper represents a needs analysis of a group of students enrolled in a Public Vocational Institute (PVI) in the context of teaching English for Specific Purposes (ESP). One of the main goals of the needs analysis conducted was to reveal the various learning styles and strategies for learning of the students. Using a quantitative methodology, the results of the research show that respondents consider learning English as a relatively easy task related to their training. They believe the English language will help them in their profession and it will offer them better job opportunities. Most respondents seem to prefer using technology, watching videos, and listening to the teacher's discourse in order to learn English. Their learning priority is acquiring vocabulary related to their profession, by practicing with colleagues or listening to conversations in English. Reading texts in English related to their profession is also on their list of preferences. Moreover, the needs analysis results revealed that learners prefer pair work or activities in small groups. Possible obstacles in the process of education and training were also researched. Respondents consider the physical tiredness factor to obstruct the learning process while some of them underline that poor cooperation with the trainer can affect the learning and training process. The participants consider speaking and listening in English as being more important than reading and writing in their profession.

**KEYWORDS:** needs analysis, ESP (English for Specific Purposes), adult learners, Public Vocational Institute, continuous education.

### 1. INTRODUCTION

Needs analysis in education refers to a systematic process of identifying and assessing the specific requirements, gaps, and challenges within an educational context. It involves gathering data and information to determine various needs like the ones of the learners, the teachers, the educational institutions, or of a particular educational program. The information can be collected through different methods such as observation, surveys, interviews, and assessments. The aim of needs analysis is to provide a foundation for making informed decisions and designing effective educational interventions.

Needs analysis involves first of all gathering information about the learners' current knowledge, skills, attitudes, abilities, and secondly it involves analyzing this data and identifying the areas where the learners need improvement or help. The need analysis enables learning programmes and training to be tailored in accordance with the individual requirements of students so that they can benefit from them.

## 2. DESCRIPTIVE ACCOUNT OF THE ESP TEACHING SITUATION

### 2.1. Teaching situation - institution

The teaching situation analyzed for the present research refers to an English for occupational purposes (EOP) situation, included in the category of English for Vocational Purposes for non-professionals. The group of learners are attending their second and last year of training and education in a PVI located in Thessaloniki and this is their second semester taking English classes. By the end of the second semester, learners would have completed a total of 30 two-hour sessions of English language. Their specialty is *Technical Bakers – Confectioners* and after finishing this semester they will have to follow an extra six months of practice in the domain of *Bakery – Confectionery* in an establishment of their choice. This teaching situation is a typical ESP situation in Greece, belonging to the expanding circle, according to Kachru's categorization (1985). Their participation in the English class is compulsory and makes this course a rather extensive one in tandem with the learners' professional activities. The role of the teacher as a syllabus designer is to render each meeting self-contained in relation to the materials used (Sifakis, 2008/2018).

According to Dudley-Evans & St John classification (1998, in Sifakis, 2008/2018), the present teaching situation is located somewhere between position 3 and 4 along the specificity continuum, therefore, in relation to the target needs of the learners the syllabus implemented becomes quite specific in terms of skills taught and the contexts in which skills are introduced.

For the specialty of *Bakers-Confectioners* the curriculum is quite general, offering a flexible framework based on which the ESP teacher as a syllabus designer develops and adapts materials according to each specific teaching situation. No official textbooks are recommended, and no mentions are made of language specificity and input authenticity by the authorities in charge of these training programmes. Except for the role of syllabus designer, the ESP teacher must be aware also of other roles he or she might need to take. For example, he or she might need to take the role of manager and facilitator of learning, negotiating with the trainees about what would be most appropriate to include in the syllabus and when to do this (Sifakis, 2008/2018).

### 2.2. Teaching situation - learner profile

The ESP teaching situation includes a group of 19 learners enrolled in this Public Vocational Institute in Thessaloniki. The group of 19 learners included in the research is comprised of 11 women and 8 men, with 63% of them being in the age category of 18 to 25. Almost half of the respondents are unemployed (47%) and only 11% of them are working on a full-time base at the time of completing the questionnaire. The English course can be characterized as a “parallel with experience” course since the English classes run concurrently with the professional activities in the specific EOP situation. Therefore, the ESP teacher can use the learners' professional activities and experiences to search for proper “carrier input” and develop relevant learning tasks (Sifakis, 2008/2018).

The learners are all adults or better said they can be considered as having reached the stage of “adulthood” in their lives, they are responsible for governing their own lives (Merriam and Caffarella, 1999), they are physically mature to make their own choices related to work and education (Tight, 1996) and they are capable of judging and measuring facts in perspective (Rogers, 1996).

Adult learners have unique characteristics that they bring with them when returning to *post-initial* education (Sifakis, 2008/2018) and training. One of the roles of the ESP teacher (the teacher as a researcher) is to discover and consider these characteristics in order to create and implement a suitable

ESP course (Sifakis, 2003). Adult learners bring with them life experiences and they want to use these experiences as a source of knowledge (Kokkos, 2000, Rogers, 2002). Adult learners tend to prefer active, self-directed, autonomous learning, feeling responsible for their own training (Sifakis, 2003), therefore their opinions about the content of the course have to be considered by the teacher in the role of syllabus designer (Kokkos, 2000).

This post-initial education situation presupposes from the part of the learners some basic linguistic competence in the English language, an engagement with the specialty taught and motivation to learn (Dudley-Evans & St John, 1998). Motivation varies from adult to adult, and can be triggered for example by social or personal reasons (process-oriented motivation), by the desire to obtain a certificate (goal-oriented motivation), or by their wish to acquire a new skill (subject-oriented motivation) (Houle, 1961). Adults come back to education because they want to change something in their professional, social, or personal life, having specific goals and expectations about the training programme.

Adult learners have different preferences concerning the way they acquire knowledge, and they use different strategies for learning (Athanasiou, Baldoukas & Papaoura, 2014). The present needs analysis survey focuses on discovering respondents' different strategies for learning. Adult learners also have competing interests since they assume different roles on a daily basis, for example, that of a provider for the family or that of a member of the community (Knowles, 1990). These competing interests are many times of greater importance than the learning process and may act as obstacles, often affecting the whole process of teaching and learning (Rogers, 1996, Kokkos, 2000). These obstacles in learning are also analyzed in the present research.

### **2.3. Classifications of the ESP teaching situation**

In relation to the professional area involved (Sifakis, 2008/2018), the current teaching situation can be classified in the category of English for Vocational Purposes for non-professionals, training for a specific occupation, that of *Bakers-Confectioners*. Even though EOP refers to non-academic English language, it is still very purposeful for the specific group of learners, that need to acquire the English language for their occupation. This classification calls for reflection on the unfortunate fact that at the moment there is no collaboration between the ESP teacher and at least one occupation expert in the specific field. Such collaboration would have positive effects since the experience of the occupation expert would help the ESP teacher gather and design more suitable materials for the specific group of learners (Sifakis, 2008/2018).

According to the experience-oriented classification of the ESP domain (Sifakis, 2008/2018), the specific English course can be characterized for the majority of the students as being a pre-experience course while for few of them as a simultaneous / in-service course. This means that some of the students are not familiar yet with working in the field of *Bakery – Confectionary*, while few others are already working in this field providing the opportunity for specific and integrated work for the English class (Sifakis, 2008/2018).

A third classification refers to the specificity continuum, as described by Dudley-Evans & St John (Sifakis, 2008/2018). According to the five values of the specificity continuum, technical schools and vocational institutes courses in Greece are usually situated somewhere between position 3 and 4 along the continuum. 47% of the respondents declared that they have a B2 level of English (See Appendix 2), but after a semester of working with the specific group of learners, I consider that the majority of them have a rather low level of English language (“Breakthrough” level according to the CEFR, 2001). This fact positions the ESP teaching situation as belonging to position 2 along the

continuum. The majority of the learners still need to acquire basic competence in general English, concluding that the English course must have a rather low level of specificity.

A final way of describing the current teaching situation is according to the content (“real” or “carrier”) of the ESP course (Sifakis, 2008/2018). The ESP teacher uses materials and activities that can be characterized as having a high specificity, materials related to the domain of the learners’ profession, like for example recipes or different baking utensils and appliances manuals. The ESP teacher tries to develop authentic activities based on these materials and hopes this way she manages to motivate and persuade the learners about the authenticity of the learning situation (Sifakis, 2008/2018). The topics and themes of these authentic materials form the *carrier-content* used to introduce specific language elements during different stages of the English course. These authentic topics became vehicles for the *real content* (Sifakis, 2008/2018) as the ESP teacher introduces for example a particular grammatical form (the use of imperatives), or a type of genre (the recipe).

### **3. CURRICULUM SPECIFICATIONS AND SYLLABUS DESIGN**

In July 2017 the General Secretariat for Lifelong Learning published the curriculum for adult education in PVI, offering a general and flexible framework for the ESP teachers to design syllabuses according to each specific teaching situation. The focus of the English course should be to develop the communicative competence of the learners, in order to become capable to use the English language in various communicative situations related both to their vocational profession and to their social life.

For the specialty of *Technical Bakers-Confectioners* there are no official textbooks, and the curriculum does not mention anything about language specificity or input authenticity. Hence, it is up to the ESP teacher to decide what materials and activities to use, according to needs of the specific group and the teaching situation. Considering that we are dealing with an ESP situation, the teaching of the English language should be subject-specific, closely connected with the vocational and the general English competence of the learners, so that maximum results regarding in-class participation to be assured (Sifakis, 2008/2018).

### **4. NEEDS ANALYSIS THEORIES - TYPES ADOPTED**

For the present research a combination of different types of needs analysis are adopted, in order to gather as much information as possible about the specific group of learners and to provide an in-depth understanding of the whole ESP context. There is a strong focus on the Learning situation analysis, based on the theory of Hutchinson & Waters (1987). The needs analysis conducted tries to offer a detailed understanding of “necessities” (what learners need to do in English within their target situation in order to function effectively), the “lacks” (the necessities learners lack in the English language) and the “wants” of the learners (subjective needs of deeper desires regarding a particular target situation, what motivates them most) (Sifakis, 2008/2018).

Other theories considered in designing the needs analysis research were that of Strategy analysis and learning styles (Sifakis, 2008/2018). Learners’ habits, preferences and beliefs about learning English were gathered and analyzed, so that the syllabus that will be created for this group to focus on activities that will be consistent with the students’ preferences for learning and their preferred strategies to learn.



## 5. METHODOLOGICAL APPROACH AND THE DATA GATHERING TECHNIQUE

The needs analysis procedure included a preparation stage in which a quantitative methodological approach was considered preferable since such an approach offered more control over how the data was collected and interpreted, the opinions of all the learners could be obtained with the use of a questionnaire while the data gathered was considered more precise, consistent and more objective than in the case of a qualitative approach (Cohen, Manion & Morrison, 2007).

The collection of primary data was conducted with the help of a questionnaire. After the data was collected was introduced in SPSS and descriptive statistics were implemented in order to extract the necessary information about the learners' needs, wants, and lacks in relation to studying English in the PVI.

Regarding the structure of the questionnaire, the first section comprised easy-to-answer questions focusing on general information related to demographic data such as age, gender, education, current work situation, and the reason why participants choose to study in a PVI. The second section focused on respondents' attitudes towards English language learning in general, while the third section focused on the respondents' preferences and strategies implemented while learning English in the PVI. The fourth section tried to shed light on the difficulties respondents encounter in learning the English language. The fifth section checked the importance of the four major skill in relation to the specialty of *Bakers - Confectioners*.

The needs analysis procedure follows with some small deviations the framework of Hutchinson & Waters (1987) for analyzing learning needs: who are our learners, why are they taking the course, how do learners learn, when and where the course takes place and what resources are available. The questions included in the questionnaire were collected from different sources, like the theories related to learning strategies, already-tested questionnaires from academic articles and theories about adult education.

The questionnaire items gave the researcher two types of variables: nominal and ordinal. Nominal variables offered only descriptions of the observations, having no necessary relationship between them (Karasimos, 2019) like "gender", "occupation", or "why study in a PVI". Ordinal variables organized the data in a rank order. Some examples of ordinal variables are: "the level of education of the respondents", "the English language level", or variables that describe the degree of agreement with different statements related to learning style or strategies, the importance of different language skills or difficulties in learning the English language.

## 6. FINDINGS OF THE RESEARCH

Some of the descriptive data, that was not already mentioned, refer to the level of education of the respondents, with 84% of them having obtained a High school diploma. Also, 68% of the respondents declared that they had followed English courses in private language schools parallel to their compulsory education.

Judging from the mean values of the last four sections of the questionnaire some conclusions can be drawn. In general, the respondents do not consider learning English as being difficult, or boring, or unrelated to their training. They strongly agree that English will help them perform better in their profession, will improve their social and personal lives, and will offer them better job opportunities.

Most of the respondents (73%) stated that they chose this specialty because they liked it and they wanted to learn more about it - subject-oriented motivation. Only 22% of them responded that they

follow this specialty to find a job or to obtain better salaries compared to other professions, which is a goal-oriented motivation.

Considering strategies and ways of learning English inside the classroom the respondents seem to prefer most using technology tools (a mean value-M.V. of 4,1), watching videos (M.V. – 4,1) and listening to the teacher speak (M.V. - 4). With a mean value of 3,8 they like learning new vocabulary items by practicing with colleagues, listening to conversations in English, and solving multiple-choice and fill-in-the-gaps exercises. They also like to participate in discussions in English (M.V. – 3,7) and participate in role-playing games (M.V. – 3,5). They seem to enjoy reading texts in the foreign language (M.V. – 3,5) and learn English with the help of coursebooks for their specialty (M.V. – 3,5).

They also showed a preference for “old-fashioned” ways of learning, probably connected with the way they used to learn in childhood, like translations from English to Greek and vice versa (M.V. – 3,4), learning English through repetition (M.V. – 3,5) and learning explicit grammar (M.V. – 3,5). This implies that it might be necessary to engage learners in substantial unlearning procedures (Rogers, 1996, in Sifakis, 2008/2018).

Learners do not seem to like working on their own (M.V. – 2,7), but they prefer to work with the whole class (M.V. – 3,6), in small groups (M.V. – 3,6) or pairs (M.V. – 3,5). They prefer mistakes to be corrected with the help of the trainer (M.V. – 3,6), even in front of the class (M.V. – 3,5) but not so much by exchanging papers with colleagues and correcting each other’s papers (M.V. – 2,6).

The mean values for Section D were all around 2,5 out of 5 or under this value, showing that respondents in general do not consider that they encounter many difficulties in learning English. It is worth mentioning that some of the respondents consider learning English to be obstructed by the physical tiredness factor (M.V. – 2,7) and some of them by the poor cooperation with their trainer (M.V. – 2,6).

For the last section the mean values pointed to the importance of all four skills for the participants. To communicate orally (M.V. – 4,7) and be able to understand speech and discussions in relation to the profession of *Bakers-Confectioners* (M.V. – 4,5) were given top priority, while also the other two skills received high values (Reading - M.V. – 4,2 and Writing - M.V. – 4,1).

## 7. DISCUSSION OF THE FINDINGS

According to the classification of Houle (1961), for the present study, most of the respondents (73%) stated that they returned to post-initial education being motivated by their wish to learn a new skill related to a domain they like (subject-oriented motivation) and 22% of them that they came back to education in order to obtain a certificate (goal-oriented motivation) in order to find a better-paid job compared to other professions.

The research on needs analysis was based on the learning theory of Hutchinson & Waters (1987) and on theories for strategy analysis and learning styles (Sifakis, 2008/2018), trying to offer a detailed understanding of the “necessities”, the “lacks” and the “wants” of the learners, their habits, preferences, and beliefs about learning English.

Since adult learners have different preferences in relation to the way they acquire knowledge and they use different strategies for learning (Athanasidou, Baldoukas & Papaoura, 2014), one of the main goals of the needs analysis conducted was to reveal these various learning styles and strategies for learning. Most of the respondents seemed to prefer using technology, watch videos and listen to the teacher speak in order to learn English inside the classroom. They stated as a high priority to learn new vocabulary items related to their profession by practicing with colleagues or listening to conver-

sations in English. They seemed to like solving multiple-choice and fill-in-the-gaps exercises. They also liked speaking activities and role-playing games. Reading texts in English related to their profession was also on their list of preferences.

Respondents showed a preference also for learning the English language by conducting translations from English to Greek and vice versa and engaging in drill-type repetition exercises, methods that do not quite correspond to communicative and modern approaches to learning English. Also learning explicit grammar was among their preferences. For these situations, the ESP teacher must find ways to engage learners in substantial unlearning procedures (Rogers, 1996) and replace such methods with more modern and effective ones. More, the needs analysis results revealed that learners prefer pair work, in small groups or with the whole class and they prefer their mistakes to be corrected by the teacher–trainer.

Possible obstacles in the process of education and training were also researched in the needs analysis, since adults must assume so many roles every day, roles that might act as barriers in the learning process (Rogers, 1996, Kokkos, 2000). In general, respondents did not consider that they encounter many difficulties in learning English. Few of them considered the physical tiredness factor to obstruct sometimes the learning process while some of the respondents stated that poor cooperation with the trainer can affect the learning and training process.

When asked to rank the importance of the four major skills (listening, speaking, reading, writing) in their domain of work, the participants considered speaking and listening as being slightly more important than reading and writing.

## 8. CONCLUSION

Needs analysis is particularly important in adult education because adults have unique learning needs and requirements that differ from those of children and adolescents. Adults often have a specific goal or purpose in mind when they enroll in an educational program, such as improving their career prospects, developing new skills, or pursuing personal interests. The present needs analysis is of high importance for the specific teaching situation since it will help the ESP teacher draw a general profile of the learners, prioritize their different needs, and in the following stage, design and implement a suitable syllabus.

Conducting a needs analysis in adult education helps to ensure that the educational program is tailored to meet the specific needs of adult learners. It allows educators to gather information about the learners' prior knowledge, skills, experiences, and expectations, which can help to design instruction that is relevant, engaging, and meaningful. It fosters a learner-centered approach, promotes engagement, and increases the relevance and effectiveness of the educational experience.

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## 7. Differentiated teaching and learning difficulties

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### ABSTRACT

Learning disabilities are a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of spoken and written language, logical processing and learning skills. Differentiated teaching is a trend in the implementation of the educational project, which focuses on the special educational needs of students and provides them with various options for access to information, so that effective learning can take place. It is a method that is widely used in the field of Special Education, as it is considered particularly suitable for students with learning difficulties and other special educational needs, emphasizing their particularities, their abilities and the difficulties they face. For this reason, educational research has focused on promoting the diversification of curricula, content, teaching methods and strategies used by teachers, focusing on the study of teachers' attitudes, with the aim of understanding the nature of teaching.

**KEYWORDS:** Differentiated teaching, learning difficulties.

### 1. INTRODUCTION

Learning disabilities are a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of spoken and written language, logical processing and learning skills. A key feature of children with learning disabilities is low school performance, which leads to school failure and often leads to social rejection of children by their peers. Responding to the reality of such a diverse student population, teachers need to adopt new measures, such as the use of differentiated teaching and learning practices. Differentiated teaching is a trend in the implementation of the educational project, which focuses on the special educational needs of students and provides them with various options for access to information, so that effective learning can take place. It is a new approach, which concerns the design and provision of teaching in order to better approach the needs of each student. It is a method that is widely used in the field of Special Education, as it is considered particularly suitable for students with learning difficulties and other special educational needs, emphasizing their particularities, their abilities and the difficulties they face. For this reason, educational research has focused on promoting the diversification of curricula, content, teaching methods and strategies used by teachers, focusing on the study of teachers' attitudes, with the aim of understanding the nature of teaching.

### 2. LEARNING DIFFICULTIES AND DIFFERENTIATED TEACHING

Learning Disabilities is a broad term that refers to a heterogeneous group of disorders that cause severe difficulties in assimilating and using speech and in particular in reading, writing, logical thinking and mathematics. However, this wide range of concepts makes it difficult to find definitions for this



group of disorders, which will be commonly accepted in the scientific community (Kakouros & Maniadaki, 2003).

Effective teaching of students with learning disabilities requires, in addition to theoretical knowledge of information on the nature of learning disabilities, the development of skills to adapt teaching objectives and teaching aids according to the special needs of students (Panteliadou, 2008). It is a demanding process, in which the teacher must take into account not only the subject that will be taught and the cognitive level of the student, but also the basic cognitive and emotional characteristics of the student.

In the field of Special Education, the diversification of teaching is historically a fundamental principle for the effective teaching of all students and especially students with learning difficulties. In other words, it is therefore understandable that students with learning disabilities need special care and planning (Panteliadou, 2008).

Differentiated teaching is today one of the most popular practices in Special Education, which serves in the design of educational programs according to the particularities and special educational needs of each student, in order to achieve equality and social justice. In fact, the differentiation of teaching and the partial individualization of educational programs, can take place within the general classroom environment, so as not to threaten the principles of school inclusion and inclusion of students (Stasinou, 2016).

According to Panteliadou (2008), the concept of differentiated teaching ensures that the level, learning readiness and interests of each student are related to what he learns, the way he learns it and how he shows us what everyone has learned. pupil. With regard to students with learning disabilities in particular, the use of differentiated teaching practices is considered necessary, as teaching and assessment in multiple ways perfectly match the characteristics of students with learning disabilities. In a classroom where differentiation practices are used, all students can participate in different groups or deal with different materials thus avoiding stigmatizing students with learning disabilities. In differentiated teaching, the teacher plans the teaching in advance, based on the needs and interests of the students and does not wait for the teaching to fail in order to intervene correctively afterwards. Differentiated teaching is an effective teaching approach that assists teachers in implementing curricula and standard requirements while monitoring the learning needs of all students (Lawrence-Brown 2004; Tomlinson, 2000).

The adoption and implementation of differentiated teaching in the modern school is a necessity, given that the modern school population is now differentiated and heterogeneous and thus, unified teaching is considered ineffective and inadequate. This is because the traditional teaching methods are designed to address a homogeneous student population, which today can not meet the different needs of students (Panteliadou, 2008). On the contrary, the application of differentiated teaching practices in the classroom presents significant advantages regarding the organization of the classroom but more generally the learning process, in relation to the traditional way of learning (Fykaris, 2010).

In the modern school reality, then, traditional teaching no longer meets the diverse needs of today's students. In contrast, differentiated teaching benefits all students by focusing on key skills and ideas in the content category, responding to each student's needs through systematic assessment (Tomlinson, 1999, 2001; Tomlinson & Kalbfleisch, 1998; Gregory & Chapman, 2007; Heacox 2002).

Differentiated teaching is not only a method by which the lesson is conducted, but a more general way of thinking and dealing with students in a classroom. Its importance and benefits are great due to its democratic character. Specifically, differentiated teaching takes into account the specificities of all students and treats them equally, providing equal opportunities and access to education for all. Thus,

it is a kind of teaching which is human-centered and ensures equality in all its aspects, promoting social justice (Valianti, 2015).

The benefits of differentiated teaching are many and relate to all areas of student development. In particular, there are cognitive benefits, as students with special educational needs have the opportunity to attend and participate in an educational process that is specifically designed for them and adapts to their needs and learning profile. Differentiated teaching is not only aimed at acquiring general knowledge from students, but at providing all the supplies they need for their later adult life, in a society that requires a lot of specialized knowledge (Fykarris, 2014).

In the psychological field, students develop their self-confidence and feel positive by increasing their performance and achieving their goals. Furthermore, the benefits of students from differentiated teaching, concern their socialization, as they feel to a lesser extent social exclusion and marginalization and integrate smoothly into the school community.

Diversified teaching has aroused research interest worldwide, a fact which is evident from the multitude of research that has been carried out on this subject. The purpose of most of the research was to investigate the views and attitudes of teachers regarding differentiated teaching and in particular, to investigate their knowledge about the principles, the frequency of application of differentiated teaching practices, the differences that arise depending on their individual characteristics as well as and the difficulties they face in implementing these practices. Some research has looked at the effectiveness of using differentiated teaching practices in the classroom.

## **2.1. Basic research in Differentiated Teaching**

The purpose of the study of Moon, Callahan, Tomlinson & Miller (2002), was to explore the perceptions of teachers and students about the use of differentiated teaching practices. The results of the research showed that the majority of teachers report that they modify the Content of activities, Learning Outputs and use flexible grouping strategies. However, a large number of teachers stated that they have never adapted a task or a variety of materials based on the level of readiness of the students.

In his research, Affholder (2003), who investigated the use of differentiated teaching in general education classes, found that 10 of the 26 teachers who participated in the study apply high-level differentiation practices, however, they are concerned about their practical application., as they need more time for individual activities and processes. Teachers also stated that they consider their professional development necessary in order to use differentiation practices more effectively. Lack of time on lesson planning, preparation, collaboration with others, communication with students, and time required for teaching has been identified as one of the major difficulties teachers face. The results also revealed that teachers had concerns about classroom management and the organizational issues surrounding the differentiated teaching approach, and expressed the need for support in the way staff and resources are continuously developed.

Differentiated teaching is a way of education that could serve teachers to practice and develop specific skills of students, in which they may face weaknesses. In this regard, the research of Mastropieri et al. (2006), examined the effectiveness of differentiated teaching. The sample of the study consisted of 213 students, who were divided into two groups, the control group and the experimental group. The students of the control group were trained with the methods of traditional teaching, while in the experimental group differentiation practices were applied. The findings of the research showed that the students who participated in differentiated teaching programs performed better, while they also showed greater interest in participating in them.

The effectiveness of the use of differentiated teaching practices was also examined by the research of Rice et al (2011). According to their research findings, the use of differentiated teaching in the cultivation of students' reading ability, oral fluency and reading comprehension proved to be more effective than the application of traditional methods.

The subject of Hobson (2008)'s study was the examination of the frequency of application of differentiation practices by teachers in school classrooms. The sample of the study consisted of 33 teachers. The results of the research showed that the practices used to a greater extent by teachers fall into the categories of Content and Process.

The purpose of the Smeeton (2016) literature review was to examine teachers' common perceptions of differentiated teaching, the common practices they use, and their training resources for learning to apply differentiated teaching practices. The results of the study strengthened the presumption that differentiated teaching is considered by teachers as a useful tool in multidimensional classrooms today and that the use of differentiation in the three main categories of Content, Process and Learning Outcomes are an integral part. of student success.

James (2009)'s research focused on exploring teachers' perceptions of differentiated teaching and its daily application in the classroom. 37 teachers participated in the research. From the analysis of the research data, it emerged that teachers are aware of the principles of differentiated teaching at a theoretical or conceptual level. However, teachers do not apply the methods of differentiated teaching in the classroom in a systematic way. Thus, researchers conclude that research on differentiated teaching should be intensified so that teachers can be trained in it and begin to apply differentiated teaching practices more effectively.

King (2010) studied the relationship between knowledge and the application of differentiated teaching practices. This study also explored the factors that teachers perceive as barriers to the application of differentiated teaching. The participants of the research were 22 general and special education teachers. The findings of the study showed that the perception and knowledge of the didactic teachings related to differentiated teaching, is directly related to their practice, as the results showed that there was a statistically significant relationship between them. The study also revealed that knowledge of content was the most important factor influencing teachers' decisions regarding the use of differentiation practices. Time has been found to be an obstacle in the implementation of differentiated teaching practices.

The purpose of Whipple's research (2012), was to investigate the level of understanding and application of differentiated teaching, in six categories of differentiation, based on the views of teachers. The study involved 141 special and general education teachers, who worked from 1 to 25 years. The results of the research showed that, in general, the level of understanding and application of the practices of differentiated teaching of the participants was high. In terms of level of understanding, the differentiation category with which teachers were found to be most familiar was that of Content, while the category with the least familiarity was that of Product Differentiation. Overall, teachers showed high levels of understanding, but there were categories in which they showed higher values. In particular, in descending order, the following categories were better understood by the research participants: Content, Assessment, Process and Learning Product. Regarding the level of application, the results of the research showed that teachers apply differentiated teaching practices related to the content category to a greater extent than the other categories. The learning product category seemed to have the lowest application rates. Specifically, the responses of the participants showed that the categories to which differentiation practices

are applied, in descending order of implementation, were the following: Content, Process, Assessment and Learning Product. Overall, the category of differentiation with which teachers were found to be more familiar was that of content, while the category with the least familiarity and application was that of product. Regarding the correlation between the level of understanding and the application, the results of the research showed that the level of understanding was higher than the level of application of differentiated teaching practices.

Roiha (2012)'s research examined teachers' perceptions of differentiated teaching, the differentiation practices they use, and the difficulties they face. The findings of the study showed that the teachers who apply the differentiated teaching, usually differentiate the Process and the Content. However, they seem to face several difficulties in implementing differentiated teaching, the most important of which are the lack of time and materials and the management of the classroom environment.

Joseph's study (2013) revealed differences between the level of understanding and application of differentiation practices. In particular, the results of her research showed that most teachers, primary and secondary, understand the principles of differentiated teaching. However, they do not apply its practices as they face difficulties such as lack of time, lack of school infrastructure and lack of support from government agencies.

Burkett (2013)'s research used the method of phenomenology to explore teachers' views on differentiated teaching and their impact on educational practice. The analysis of the data revealed that vocational training functions as a factor influencing the use of differentiated teaching practices. He also revealed that diversifying the learning environment favors learning. Regarding the application of differentiation practices, the study found that teachers use flexible grouping, tiered courses, and curriculum compression.

It is also important to investigate the impact that the application of differentiated teaching has on the trained teachers and more specifically, the achievement of the goals, but also the challenges that are set to be investigated. In general, the research conducted by Joseph et al (2013), showed that there are positive effects from the application of differentiated teaching to students, in terms of their performance and development. In fact, the students expressed themselves positively towards the methods of differentiated teaching and expressed the desire to apply them themselves after graduation.

## **2.2. Teachers and Differentiated Teaching**

While the high level of understanding of the methods of differentiated teaching is observed from a theoretical and conceptual point of view, research results revealed the differentiation of their level of understanding and / or application, depending on specific individual characteristics of teachers.

Regarding the individual characteristics of teachers, in Whipple (2012) research, it was observed that those who had more training had a higher level of understanding and application of differentiated teaching, while the same is true with special education teachers compared to those of general education. Specifically, the teachers who were trained showed statistically higher values in all categories, except the Content category, in the application of differentiated teaching practices, while in comprehension there was no statistically significant difference in the Process category. Special education teachers presented statistically higher values than those of general education in all categories in understanding and application. Similar findings were presented by James (2009) in her research, as it was found that special education teachers as well as those with academic training often use practices of process differentiation.

The application of differentiated teaching practices in Whipple (2012)'s research did not seem to attract teachers from a specific target group with years of experience, as the results of the research showed a lack of differences between groups with different years of service in general education. As there were participants from all groups who showed interest in the concepts and application of differentiated teaching practices. However, research by James (2009) showed that there is no significant difference in the categories related to differentiated teaching depending on the years of service of teachers, although teachers with more years of service tend to use practices referred to in Content and Process more often than not experienced teachers.

The years of service and the degree of training and education of teachers, determined the classification of teachers into two groups, the one that differentiates teaching often and the one that differentiates it less frequently, in Hobson (2008) research, as well as the findings of his study showed that teaching experience and training related to differentiated teaching in studies had an effect on the frequency with which participants applied differentiation practices in their classrooms. In the same vein, King (2010) studied whether teachers' knowledge influences their decisions regarding the application of differentiated teaching. Findings from his study revealed that teachers' 'knowledge of Content Differentiation was the most important factor influencing teachers' decisions to use differentiated teaching in their classrooms.

According to Dixon et al. (2014), teachers' self-confidence in their ability seems to significantly affect the level of understanding and application of differentiated teaching and, therefore, a very important feature is the training and professional development of teachers. This study dealt with differentiated teaching in relation to the professional development and effectiveness of teachers, while focusing on the effectiveness of teachers as a way of explaining their willingness to apply differentiation practices. The research involved 45 teachers, from all levels of education. According to her, teachers have difficulty in the educational process due to the particularities and different educational needs of many students. For this reason, differentiated teaching provides them with alternative ways of managing these needs, making them more effective. The results of the research showed that the professional development related to differentiated teaching is positively related to the effectiveness of teachers as it proved to be an important factor influencing its implementation. In fact, research has shown that teachers are willing to apply the methods of differentiation, as it contributes effectively to their educational work.

On the other hand, other individual characteristics of teachers, such as gender, did not show significant differences in their attitudes and views, as no noticeable difference was observed between male and female teachers (Barnes, 2008).

The gender difference of the participants regarding the teaching practice is an ambiguous result in research that studies the effect of individual characteristics on the application and differentiation of teaching. A limited number of studies have revealed various differences between female and male teachers regarding the application of differentiation practices. Research by King (2010) also showed that the gender of the teacher does not reveal differences regarding the application of differentiated teaching practices.

### **2.3. Difficulties in the application of differentiated Teaching practices**

The fact that teachers find it difficult to apply differentiated teaching strategies in mixed-capacity classrooms reveals a wealth of research. In general, teachers have a tendency to apply traditional, frontal teaching, without being able to meet the individual needs of each student (Mc Bride, 2004; Tomlinson, 2001).



The main obstacle, which makes it difficult for teachers to apply the methods of differentiated teaching in the classroom, is the lack of time. According to Tomlinson & Doubet (2005), teachers find that time is very stressful to get the required material according to the curriculum and, therefore, they have no room for differentiation and initiative. Their research has shown that the most experienced teachers, who have many years of service, find it more difficult to apply differentiated teaching practices as they have settled on specific teaching plans which they consider effective and which they are familiar with. Thus, they are not willing to change them.

Other difficulties identified by international surveys are lack of support, inadequacy of infrastructure, and difficulty working with parents (Robinson et al., 2014; Wan, 2017).

According to Aftab (2015), the application of differentiated teaching methods is a process that is demanding and time consuming. For this reason, most teachers prefer to apply the teaching model throughout the classroom. After all, differentiating specific elements of teaching, such as teaching materials, is something that requires a great deal of preparation from teachers, who are pressed by time.

The time as a factor influencing the application of differentiated teaching practices was also revealed by the results of the research of Maeng & Bell (2015), in which the participating teachers stated that they applied small modifications of the teaching practice, which did not require much preparation.

Chien (2015)'s research also focused on the difficulties of applying differentiated teaching in the classroom. The results showed that most teachers were reluctant to differentiate the Content and used the same textbook for all children, due to lack of training and collaborative planning. Some of the differentiation strategies used were graded activities and Content differentiation, however, this did not happen to all participants.

In Wan (2017) research, three perceived barriers to the application of differentiated teaching practices were identified. In particular, teachers stated that the size and variety of classes, the time and the lack of training on teaching strategies are the difficulties they face to a greater extent.

The research of Siam & Al-Natour (2017), aimed at identifying the different teaching practices used by teachers, the impact of experience time and school type on the application of differentiation practices, as well as the difficulties they face in teaching students with learning disabilities. The results of the research did not show any differences regarding the years of experience of the 194 participants. On the contrary, a statistically significant difference was observed in the type of school as it appeared that teachers working in private schools apply differentiation practices to a greater extent than those working in public. The main difficulties faced by teachers, as found in the study, were poor administrative support, low parental support, lack of time and lack of learning resources.

Robison (2004)'s study focused on teachers' decision-making processes, as they apply differentiated teaching in the classroom and their perceptions of the use of the approach. The results of the research showed the concern of teachers about the planning of teaching, arguing that a common programming time would better support the use of differentiated teaching and would allow them to adapt their lessons accordingly.

Thompson (2009) conducted a study, which aimed to investigate the way in which teachers understand and perceive the effect of differentiated teaching on educational practices. The sample of the study consisted of 15 teachers. The analysis of the interviews revealed the various aspects of the differentiated teaching used by the participants in the educational practice. These were: small

group teaching was found to be the most appropriate method for differentiating teaching based on skill level and learning centers are the best method for differentiating teaching based on learning style and learning preference. Regarding the difficulties faced by teachers, they stated that the implementation of differentiated teaching is difficult and time consuming. In general, the study participants considered that differentiated teaching is an educational approach that covers a wide range of learning needs.

In the research of Lora et al. (2014), a case study was used to investigate how teachers in primary school, high school and high school effectively differentiate teaching. The study involved 9 teachers, of which 3 worked in primary school, 3 in high school and 4 in high school. Key findings of the study included difficulties in implementing differentiated teaching, lack of professional development, time constraints and difficulties in learning differentiated teaching practices.

In Greece, in the research of Vlachou et al. (2009), 45 teachers working in primary schools in our country participated. The majority of participants reported that they often use adaptations in the educational practice, while those that were rarely or never used were grouping students, using a variety of activities, special resources and computers. Finally, the subject of teaching seemed to influence the pattern of teachers answers, while some misunderstandings were revealed in the understanding and knowledge of teachers' particular adaptations.

The object of research of Fykaris and Mitsi (2012), was to investigate the attitudes and perceptions of primary school teachers, regarding differentiated teaching and its application in the classroom. The findings of their research revealed the limited knowledge of teachers regarding the principles and the application of differentiated teaching.

The aim of the research of Filippatos and Vedista (2017), was to investigate teachers' perceptions about teaching and the application of differentiated teaching in the classroom. The sample of the research consisted of 160 secondary teachers of different specialties. The research findings showed that there is a difference between teachers' perceptions of teaching and their statements about the application of differentiated teaching in educational practice, which does not seem to be particularly applicable. This gap between teachers' positive perceptions of differentiated teaching at the theoretical level and in its practical application has been pointed out by other contemporary research (Ordober, 2012; Robinson et al., 2014). Regarding the individual characteristics of teachers, the research revealed that their perceptions differ depending on gender, specialty and school level.

### 3. CONCLUSIONS

In summary, differentiated teaching refers to a new way of managing the peculiarities of education, which concerns all students regardless of their characteristics and integrates them all equally in the educational process and in the opportunity to learn and develop their skills. Differentiated teaching is a very promising educational strategy, which can lead to equality and justice in school, as well as to the school and social integration of all students, regardless of their particularities.

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## 8. El marketing y el marketing político en la definición de un concepto nuevo: comunicación *inbound* y comunicación *outbound*

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### ABSTRACT

In this work we start from the concept of marketing, to try to demonstrate how (always with a view to linking the study of political language and development of innovative and technological methodologies for the study of them) this concept and its use is also found in the political field and political communication.

We will also show that it is possible to follow the principles of marketing and business to make the message more attractive and captivating in the so-called political marketing. The latter is also configured as a point of connection between discourse analysis and the innovative analysis methodology.

We will present practical examples related to political parties in the Spanish world placing them within an intercultural and international perspective. Finally, we will theorize the concept of incoming and outgoing communication (from the concept of inbound and outbound), as a theoretical basis for future analysis ideas.

**KEYWORDS:** marketing, comunicacion intercultural, marketing politico, inbound, outbound.

### 1. INTRODUCCIÓN

En este trabajo partimos del concepto de marketing, para intentar demostrar cómo (siempre con vistas a vincular el estudio del lenguaje político y desarrollo de metodologías innovadoras y tecnológicas para el estudio de las mismas) este concepto y su uso se encuentra también en el ámbito político y la comunicación política.

Mostraremos además que es posible seguir los principios del marketing y de los negocios para hacer más atractivo y cautivador el mensaje en el llamado marketing político. Este último se configura también como un punto de conexión entre el análisis del discurso y la innovadora metodología de análisis.

Presentaremos ejemplos prácticos relacionados con los partidos políticos en el mundo español situándolos dentro de una perspectiva intercultural e internacional. Finalmente, teorizaremos el concepto de comunicación entrante y saliente (a partir del concepto de inbound y outbound), como base teórica para futuras ideas de análisis.

### 2. DEFINICIÓN DE MARKETING

Marketing es el nombre dado a las actividades que tienen lugar en la interfaz entre una organización y sus clientes. (www.wikipedia.com) El término proviene del concepto original de *mercado*, el lugar donde se encuentra la reunión entre los que compran y los que venden para realizar transacciones (o intercambios) mutuamente beneficiosos. El objetivo del marketing como disciplina es asegurar que



los clientes potenciales opten por realizar sus transacciones con su propia organización, en lugar de con las de otros participantes en el mercado. Para tener éxito, quienes realizan esta actividad deben ofrecer a los clientes lo que quieren comprar, a un precio congruente con su valor. A continuación, analizaremos algunos conceptos básicos de marketing derivados del texto de Blythe “Fundamenti di Marketing”.

El concepto básico de gestión de transacciones introduce ese principio que en el marketing es el más imperativo de todos: la centralidad del cliente. En el corazón del interés del marketing y el punto de apoyo de cualquier decisión es el cliente con sus necesidades. Entre los fundamentos del marketing, ya sea teórico o práctico, este es, con mucho, el más importante, incluso si a menudo es difícil ponerlo en acción, porque es necesario poder identificarse con un otro: el cliente precisamente. Las dos definiciones de marketing más utilizadas son las siguientes: (Blythe, 2013:2)

El marketing es el proceso de gestión que identifica, anticipa y satisface las necesidades de clientes de manera efectiva y rentable. (*UK Chartered Institute of Marketing*) El marketing es el proceso que planifica e implementa el diseño, la política de precios, promoción y distribución de ideas, bienes y servicios destinados a crear un mercado y para cumplir con los objetivos de individuos y organizaciones. (*American Marketing Association*) (Blythe, 2013:2)

Curiosamente, en ninguna de las dos definiciones aparece la palabra “consumidor” quizás porque hay muchos clientes que compran un producto, pero no lo consuma personalmente (por ejemplo, el gerente de compras de un supermercado con toda probabilidad compra miles de cajas de frijoles, aunque no consumiendo ni siquiera uno porque no le gusta esa comida). También hay consumidores que no toman la decisión de compra ellos mismos: un ejemplo podría ser el de un niño, para quien normalmente son los padres los que operan en la mayoría de las opciones relacionadas con las compras de alimentos, ropa, entretenimiento, etc.

Muchas veces, aquellos que no forman parte del entorno de marketing tienden a atribuirse a esto. Función de connotaciones negativas: se cree ampliamente que el propósito del marketing es convencer personas que compran cosas que realmente no quieren, o incluso engañan al público. De hecho, lo contrario es cierto: la responsabilidad de quienes se ocupan del marketing es garantizar que el cliente está firmemente colocado en primer lugar en los pensamientos de la empresa, mientras que otras figuras corporativas están más preocupadas, por ejemplo, por llegar a fin de mes o asegurar el buen funcionamiento de las líneas de producción. Los especialistas en marketing lo saben pues que el cliente medio no seguirá recurriendo a una empresa que no ofrece productos y servicios de buena calidad a un precio aceptable, y sin clientes no hay negocio.

En muchos mercados, la competencia se ha intensificado. Si hay espacio en un determinado mercado para cuatro empresas, habrá cinco, cada una comprometida a maximizar la cuota de mercado propia; en una situación tan competitiva, el cliente es el rey y las empresas quienes descuidan sus necesidades están condenados al fracaso. Aquellos que trabajan en marketing, por lo tanto, debe centrar toda su atención en el cliente, situándolo en el centro de la perspectiva corporativo.

## **2.1. El entorno de marketing**

El entorno de marketing de una empresa está formado por los protagonistas de fuerzas externas a la empresa que influyen en su capacidad para desarrollar y mantener relaciones positivas con clientes objetivo. (Blythe, 2013:26). En términos generales, se puede dividir en dos grandes categorías: el entorno externo y el entorno interno. El entorno externo incluye todo lo que sucede fuera de la orga-

nización, mientras que el interno se refiere a los factores de marketing que se manifiestan dentro de la organización. Sucede con frecuencia que las empresas dedican mucha más atención al entorno externo que al interno, aunque ambos son muy importantes. Para hacer frente a las fuerzas que operan en el medio ambiente hay básicamente dos enfoques: lo reactivo y lo proactivo. La gestión reactiva cree que los factores ambientales son incontrolables y, por lo tanto, se inclina por modificar los planes de marketing para adaptarlos a los cambios externos. La gestión proactiva, por otro lado, se esfuerza por cambiar el medio ambiente, convencido como está de que muchos, quizás la mayoría, de los factores ambientales pueden ser gobernado o al menos influenciado de alguna manera (Kotler 1986).

## **2.2. Marketing y límites políticos: marketing político**

A menudo sucede que las empresas están condicionadas por *factores políticos*: entre los ejemplos más recientes incluyen las estrictas medidas de austeridad impuestas por muchos gobiernos como resultado de la crisis financiera de 2008. (<https://www.realinstitutoelcano.org/analisis/la-crisis-financiera-mundial-causas-y-respuesta-politica/>)

El *entorno político* del país objetivo también influye en la decisión de unirse a él. Algunos gobiernos sienten la necesidad de proteger sus industrias de los competidores extranjero o porque el país está haciendo un esfuerzo de industrialización y ciertos sectores nacionales, en una etapa temprana de desarrollo, aún no se encuentran competitivo (como sucede en algunos países en desarrollo) o debido a la escasez de las inversiones ha llevado a la decadencia de sectores industriales enteros (como sucedió en gran parte de Europa del Este). ([www.realinstitutoelcano.org](http://www.realinstitutoelcano.org)) A veces el proteccionismo puede ser superado ofreciéndose a realizar inversiones locales (para crear puestos de trabajo) o acordar limitar las exportaciones al país de destino hasta el nuevo.

Algunos países son políticamente menos estables que otros y pueden producirse golpes allí. Estallan guerras militares estatales o civiles. A veces, las disputas entre países pueden dar lugar a embargos comerciales u otras restricciones al libre comercio. Obviamente, estas medidas son particularmente frecuentemente en el comercio de armas, pero a veces pueden ser limitaciones similares aplicado en términos generales contra países considerados enemigos. Por ejemplo, el EE.UU. aún mantiene un embargo contra Cuba que incluye un largo lista de mercancías. ([www.realinstitutoelcano.org](http://www.realinstitutoelcano.org))

## **3. PUBLICIDAD Y MARKETING**

### **3.1. Marketing publicitario**

El Marketing Publicitario se puede definir como aquel conjunto de principios y técnicas utilizadas por las empresas para transformar las necesidades expresadas por los consumidores en oportunidades de lucro. Significa esa forma de comunicación masiva utilizada por las empresas -y no sólo- para crear consenso en torno a su imagen, con el objetivo de alcanzar sus objetivos de marketing. La gente tiene una tendencia a usar “publicidad” y “marketing” como sinónimos. (Blythe, 2013:233) La publicidad no es lo mismo que el marketing. El marketing publicitario es un área de marketing. Al igual que las redes sociales, la planificación de eventos, etc., la publicidad (o marketing publicitario) es un subconjunto del marketing. (Blythe, 2013:233)

La definición de publicidad es: crear un anuncio; pagar a un tercero para que lance el anuncio en su plataforma. En el pasado, si querías promocionar tu negocio, tenías que pagar para publicar un anuncio en un lugar determinado. Y ese lugar era generalmente televisión, radio, prensa, publicidad

directa, vallas publicitarias al aire libre o anuncios de banner digital.

Con el tiempo, las opciones disponibles para enviar un mensaje explotaron. Ahora hay una gran cantidad de herramientas y tácticas que puede usar para promocionar su negocio, desde mantener un blog en su sitio web hasta tomar fotos y subirlas a Instagram. Ninguno de los cuales requiere que un tercero pague para ejecutar un anuncio. A menos que le pagues a otra persona para que publique un anuncio en una plataforma que no posees, y luego no es publicidad sino marketing. (Blyte, 2013:234)

### **3.2. Campaña publicitaria**

La campaña publicitaria es el conjunto coordinado de anuncios respaldados por una idea creativa común, transmitida por una tarifa en uno o más medios de comunicación. El proceso de creación de una campaña publicitaria comienza con la reunión entre el grupo de marketing de la empresa y el equipo de gestión y cuentas de la agencia de comunicación. De esta reunión, conocida como reunión informativa, suele surgir un documento informativo (elaborado por el grupo de cuentas) que contiene indicaciones sobre los objetivos de la campaña, el presupuesto, el objetivo, el calendario, etc.

A la fase informativa le sigue, por un lado, la concepción y producción de los mensajes a difundir (responsabilidad de la agencia creativa), por otro lado la elaboración y ejecución del plan de medios (responsabilidad del centro de medios). Si la agencia creativa tiene la tarea de elaborar la estrategia de comunicación, sobre la base del resumen, el centro de medios se ocupa de la planificación de la campaña publicitaria en los medios (planificación de medios). El centro de medios es responsable, en particular, de la elaboración y aplicación del plan de medios óptimo para una campaña publicitaria específica, es decir, capaz de transmitir un determinado mensaje publicitario al destinatario correcto de las personas, en el momento más adecuado, con el medio publicitario o vehículo más adecuado y la frecuencia adecuada.

### **3.3. El Marketing político**

Según uno de los expertos más importantes en la materia, el francés Michel Bongrand, autor entre otros del libro “Le marketing politique”, este es el significado del término del que estamos hablando:

El marketing político es un conjunto de técnicas cuyo objetivo es facilitar la adaptación de un candidato a su electorado potencial, darlo a conocer al mayor número de votantes y a cada uno de ellos en particular, crear una diferencia con competidores y oponentes y con un mínimo de medios, optimizar el número de votos, que deben ganarse durante la campaña de comercialización. (Bongrand, 1986:18)

Se trata, en definitiva, de marketing aplicado a la política y deriva de la tendencia cada vez más establecida, de hacer uso de la comunicación de masas para conseguir un objetivo de carácter político. Estamos hablando de lenguajes que siguen las mismas líneas que la publicidad, el concepto de identidad de marca y los “grandes universos” creados por las realidades comerciales de todo el mundo, pero utilizados para irrumpir en los corazones y la lealtad de las personas con respecto a los ideales, los votos y los gobiernos. (Bongrand, 1986:20)

Desde las imágenes posterizadas de *YES WE CAN* de Obama, hasta los Tweets de Trump, desde los eslóganes de la política italiana, hasta las iniciativas políticas canadienses, pasando por cientos de otros ejemplos, hablamos de todos aquellos que se encuentran útiles para mantener una alta apreciación y el llamado “hype” con respecto a un político o partido político en particular. Las decisiones de compra diarias se basan esencialmente en cómo se ofrece un producto en el mercado. Un mensaje publicitario atractivo, un eslogan lindo, una combinación adecuada de colores, una calidad de producto

específica o una recomendación adecuada tienen un impacto decisivo en las ventas.

En vista de lo anterior, ¿por qué incluso en una elección no deberíamos elegir a un candidato sobre la base de su campaña de marketing? Dejando a un lado el hecho de que una persona tiende a identificarse con el conjunto de valores y creencias de un candidato o partido, los políticos deben asegurarse de que su mensaje se dirige correctamente al público objetivo y esto se traduce en campañas de marketing político organizadas y estructuradas con el máximo cuidado.

### **3.4. El mensaje político**

El marketing político se puede definir como un conjunto de acciones o iniciativas emprendidas por un candidato político para proponerse a sí mismo a los votantes potenciales. Las principales herramientas para lograrlo son mensajes bien estructurados, transmitidos con el objetivo de ganarse el apoyo del público.

Una teoría como la de Jacques Gerstlé identifica al menos tres dimensiones fundamentales de un mensaje político. (2016:51) Hay una dimensión pragmática, a través de la cual el sujeto político trata de informar al ciudadano votante; una dimensión estructural que tiene que ver con todo lo que pasa por los canales oficiales e institucionales; sobre todo, una dimensión simbólica que recupera simbolismos y rituales que siempre han acompañado a las expresiones políticas. (Gresle, 2016:51) Sin embargo, si hablamos de contenido, una de las sistematizaciones más útiles es la que tiene en cuenta cuestiones políticas. Es difícil enumerarlos todos, ya que dependen mucho del contexto social y económico de referencia y que quienes se ocupan de la comunicación política han aprendido con el tiempo a “insertarse” en el flujo de conversaciones y explotar a su favor los temas más candentes que parecen ser más queridos por los votantes. Por la frecuencia con la que regresan en los mensajes políticos, sin embargo, algunos han sido identificados.

- 1) El political issue: tienen que ver, en primer lugar, con la propuesta político-ideológica del sujeto en cuestión y cómo encaja en el marco político de referencia más general;
- 2) El policy issue: se refieren, en cambio, a las posiciones del sujeto en cuestión sobre aspectos que impactan en la vida cotidiana como la salud, la investigación, etc.;
- 3) El campaign issue: explotado sobre todo en la campaña electoral y por la proximidad de la cita con las urnas;
- 4) El personal issue: relacionado con la vida privada y personal de la figura política individual. (Gerstle, 2016).

### **3.5. Los partidos políticos**

#### **3.5.1. PODEMOS, 2016**

Uno de los mayores ejemplos de marketing político en los últimos años es la campaña electoral del partido podemos español en 2016. Podemos convirtió su programa en un catálogo de Ikea con el objetivo de convertirlo en “el más leído de la historia de la democracia”, según ha explicado Carolina Bescansa en su libro “Podemos, sùr que nous pouvons” (2015). Bescansa aseguró que los documentos urbanísticos realizados para la convocatoria el pasado mes de diciembre no tuvieron la difusión que esperaban. Es por eso que consideraron cambiar el formato. Según explicó, “a veces mantener el contenido cambiando de formato significa comunicar lo mismo a más personas, que están menos interesadas y más distantes”. (Bescansa, 2015) Ha añadido que se trata de una metáfora de la casa como hogar de todos los españoles y pretende mostrar espacios políticos con imágenes cotidianas para explicar que el trabajo de los diputados es algo mucho más cercano de lo que suele percibir la ciudadanía.

El responsable del programa de Podemos ha destacado que optaron por hacer una asimilación entre un hogar y un país “para hacer comprensibles y accesibles los contenidos lejanos, fríos y fuera de lugar. Aunque en ningún momento los dirigentes de Podemos deletrearon el nombre de la multinacional sueca, las recientes alusiones a la “nueva socialdemocracia” se han instalado en uno de los países donde las tesis socialdemócratas se han aplicado antes y con más profundidad.

Los responsables de desarrollar el programa explicaron qué ambientes eligieron para vestir cada bloque. Las ‘Oficinas’, con Pablo Iglesias como protagonista, combinan medidas centradas en la “igualdad en las condiciones de trabajo”; los “Baños” se centran en la “limpieza” que deben tener las instituciones públicas; los ‘Dormitorios’ hablan del “derecho a la intimidad y a los derechos civiles” y finalmente los ‘Jardines’, que abordan el cuidado del medio ambiente.

Los protagonistas del diálogo son los exponentes de la fiesta: el exjemaad Julio Rodríguez lava los platos con la afirmación de que “la cocina de España debe modernizarse”. Pablo Iglesias, riega sus plantas en la sección de oficinas. Rafael Mayoral se encarga de la ropa, Carolina Bescansa se salva la compra e Íñigo Errejón lee cómodamente en un sofá. Cansados de que nadie estudie los programas electorales y conscientes de que una de las revistas más seguidas es Ikea, quisieron guiñar un ojo y copiar el look de la empresa sueca de muebles. (Bescansa, 2015).

Es una metáfora de la casa como el hogar de todos los españoles y pretende mostrar con imágenes cotidianas espacios políticos para explicar que el trabajo de los diputados es algo mucho más cercano de lo que los ciudadanos suelen percibir. Finalmente, podemos decir que el futuro de las tecnologías de la comunicación consistirá sin duda en una continua evolución y adaptación continua a las próximas tecnologías, esto asegurará que la tecnología no perezca y siga estando a la vanguardia en la gestión de las empresas, las campañas políticas y en la vida cotidiana de las personas.

### **3.5.2. PSC, 2010**

Otro ejemplo sería la campaña electoral del PSC en España en 2010 en la que una mujer se dirige a las urnas con su papeleta, nada más normal, si no fuera por el hecho de que durante el trayecto es secuestrada por un placer incontenible que termina en el momento de la entrega de la papeleta en un orgasmo atronador.

Así ocurre en el comercial para la nueva campaña electoral del Partido Socialista de Cataluña “votar es un placer” ([www.telemadrid.es/noticias/nacional/Votar-placer-0-1192080835--20101118105447.html](http://www.telemadrid.es/noticias/nacional/Votar-placer-0-1192080835--20101118105447.html)) que ha dividido a España en dos y ha llamado la atención de los medios de comunicación de toda Europa. El video fue creado con el objetivo de concientizar a los jóvenes sobre el voto y tenía alto contenido erotico. Para el líder del PSC José Montilla el fin justifica los medios y refiriéndose al comercial comentó “si empuja a los votantes a votar es algo bueno”.

## **4. EL ENTORNO INTERNACIONAL Y LA COMUNICACIÓN INTERCULTURAL**

Para profundizar en este tema es necesario partir de un enfoque básico. Sobre este tema, haré referencias en profundidad a las aportaciones de la V Giornata di Studi Ispanici del Mediterraneo, organizada por la asociación cultural Casa Caribana, cuyos actos están recogidos en el Volumen homónimo publicado en 2018 con anche un mio contributo personale. La sociedad moderna ya no se basa en una rígida estructuración jerárquica por la que los valores se imponen por mando: hoy en la mayoría de los casos la libre aceptación de las tesis más agradables a las masas está plenamente extendida, y nos



estamos moviendo cada vez más hacia prácticas participativas, donde es necesario poder sensibilizar y persuadir para alcanzar el éxito. (Iannaccone, 2018)

Muchos autores se han detenido en un análisis de la distinción entre persuasión y convicción. Kant, creía que la diferencia básica entre los dos era el carácter subjetivo-individual del primero, contra el carácter objetivo-unánime del segundo. En la práctica, es persuasivo lo que puede considerarse una razón válida para el individuo, pero no para la masa. Para Pascal, en cambio, la persuasión afecta a la imagen y al sentimiento, es decir, a todo lo que no es racional. La publicidad puede considerarse sintéticamente como una herramienta mediante la cual se puede ejercer una acción de persuasión sobre los individuos. (Iannaccone, 2018) La publicidad es una forma particular de comunicación que es encargada por las empresas a expertos en la materia, con el fin de lograr una serie de objetivos comerciales. Precisamente por este motivo, la publicidad juega un importante papel social, dado que las enormes sumas que las empresas invierten en este tipo de comunicación producen considerables resultados de gestión y crean efectos influyentes en la cultura social. (Iannaccone, 2018)

La naturaleza publicitaria, a través de la cual comenzamos a desarrollar la comunicación intercultural que en el pasado era casi una combinación exclusiva de literatura, adquirió un carácter propiamente industrial solo durante los años 20 y 30 de los 900, especialmente en los Estados Unidos. Las empresas, después de mejorar su producción interna mediante la introducción de la línea de montaje, se dieron cuenta de que tenían que favorecer el nacimiento de una demanda externa masiva de los bienes que producían. (Iannaccone, 2018). De este marketing nació, y el mundo de la publicidad se vio influenciado por los resultados de nuevos estudios psicológicos sobre la mente humana, que condujeron a la creación de carteles más sofisticados capaces de estimular la dimensión instintiva del individuo. La publicidad puramente artística fue sustituida por otra dirigida a la pura exaltación de las cualidades y prestaciones del producto. El mensaje publicitario se hizo así menos inmediato, pero más complejo y articulado. (Iannaccone, 2018)

La publicidad puede considerarse como una herramienta que actúa generando un entorno mental y un contexto cultural que puede transformarse en las acciones deseadas por las empresas. Para lograr esto, los anunciantes intentan asociar significados e imágenes no materiales con productos. De hecho, el consumidor busca toda una serie de valores sociales en los productos: belleza, salud, potencia, etc. (Iannaccone, 2018) Puede capturar los significados que ya existen en el imaginario colectivo y ponerlos en los productos que se venderán, o crear tales significados. Para lograr esto, el anunciante puede dejar que el producto hable por sí mismo en el caso de que la marca ya sea fuerte por sí misma, o puede presentar el producto junto con una o más personas o una situación afectiva notable, ya conocida por el consumidor. El lingüista y semiólogo francés Roland Barthes (1967), sostiene que tales vínculos del producto con otros sujetos se construyen artificialmente, pero parecen a los ojos del consumidor completamente naturales: “si el producto ha capturado la realidad, la realidad del mundo proviene del producto; el producto significa realidad y, si realmente quieres existir, tienes que comprar ese producto.” (Codeluppi, 2007:99)

El principal problema al que se tienen que enfrentar los anunciantes de hoy en día es el de tener que construir imágenes inmateriales alrededor de los productos materiales a publicitar. De hecho, como argumenta el filósofo francés Lévy (1959), “las personas compran productos no solo por lo que pueden hacer, sino también por lo que significan.” (Codeluppi, 2007: 109)

La publicidad juega un papel decisivo no sólo en el vasto campo de las comunicaciones de masas, sino también y sobre todo en el sistema de consumo: es el medio de masas sin el cual los signos y mensajes de consumo no podrían circular. Capta mensajes y significados ya existentes en el imagi-

nario colectivo y los coloca directamente en los bienes vendidos en el mercado a los consumidores.

En el campo del marketing, existen diversas estrategias de comunicación publicitaria. La publicidad debe seducir al consumidor, hablar con él, prometerle algo. Como sostiene el autor español Luis Bassat, “si decimos ‘mira lo guapa que soy’ estamos hablando del producto; si prometemos ‘qué feliz eres conmigo’, hablamos al consumidor del beneficio que tendrá” (Bassat, 2001:35). Toda la estrategia publicitaria se basa simplemente en acercar el producto y el consumidor, conociendo tanto las características de los primeros como las necesidades de los segundos. Lo básico desde el que empezar es el precio, la distribución, la promoción de ventas y la campaña publicitaria. El proceso de construcción sobre esta base depende de la estrategia que adoptes: por ejemplo, tener un producto adecuado para un grupo predefinido de consumidores al precio correcto.

#### 4.1. Marketing publicitario y comunicación intercultural

El contexto de la dimensión publicitaria forma parte del concepto más amplio de marketing internacional, básico para una buena comunicación intercultural. El comercio de bienes y productos en los mercados internacionales no es un fenómeno nuevo para los países asiáticos como la India. El comercio internacional en este país se remonta al año 3000 a.C., cuando los productos indios como la seda llegaron a los mercados de Persia, Egipto y Mesopotamia. Solo en la segunda mitad del siglo XX, las grandes empresas de Estados Unidos, Japón y Europa expandieron sus mercados más allá de las barreras nacionales. Sostiene Joshi,

[E]l desarrollo de las tecnologías de la comunicación y la información, y los medios de transporte, han facilitado aún más la convergencia de las preferencias y gustos de los consumidores en todo el mundo. Como resultado, los competidores también han ampliado sus horizontes comerciales a nivel internacional, experimentando con estrategias de marketing competitivas en los mercados más diversos. Todo esto ha llevado a una interdependencia entre las naciones en el comercio internacional (Joshi, 2005:2).

El marketing internacional está influenciado por dos tipos de factores: (Iannaccone,2018)

- *distancia física*: la distancia entre la oficina central de la empresa y los consumidores finales es obviamente mayor que la del mercado nacional, y el número de intermediarios entre empresas y consumidores también es mayor
- *distancia psicológica*: consumidores, clientes y proveedores en otros países son miembros de otras culturas y sociedades, con diferentes valores, sistemas políticos, legales y económicos. Para tener éxito en su trabajo, el profesional de marketing debe identificar y comprender claramente estas diferencias, y cómo afectan el proceso de comercio, compra y venta y consumo. La dificultad inicial radica en la fase de observaciones y programas de investigación preliminar, y “uno de los factores perturbadores es el *criterium de autorreferencia* que consiste en analizar una realidad externa a partir de los propios sistemas de valores, conocimiento y experiencia. Esto produce un alto nivel de subjetividad en el proceso de análisis, dando lugar a menudo a conclusiones erróneas” (Cervíño 2006: 33-35). Argumenta Cervíño:

L’incaricato di marketing parte da alcune variabili controllabili, cioè su cui può prendere decisioni o assumere un certo controllo di gestione. Tali variabili sarebbero quelle relazionate con i prodotti e le marche commercializzate, la fissazione dei prezzi, i canali di distribuzione da utilizzare e le diverse forme di comunicazione a disposizione dell’impresa. Ad esempio, cambiamenti legislativi, fluttuazioni nella crescita economica, politica fiscale, entrata di nuovi competitori nel mercato ecc..., non sono controllabili dal team della impresa, però influenzano le decisioni che esso prende riguardo alle varia-

bili controllabili. Riassumendo, quando l'impresa inizia un commercio internazionale, entra in nuovi mercati che presenteranno variabili controllabili su cui l'impresa deve realizzare una ponderata analisi riguardo a quali fattori sono simili a quelli del suo mercato di origine e quali sono totalmente differenti. Qui si radica la vera complessità del marketing internazionale: "il trasferimento degli affari a nuovi ambienti che possono presentare caratteristiche economiche, culturali e politico-legali molto diverse da quelle a cui è abituata l'impresa" (Cerviño,2006:36-37).

La razón de ser del marketing es resolver problemas y satisfacer las necesidades de los consumidores. Lo que hay que examinar son las diferencias y no las similitudes en las actitudes de los consumidores en diversas partes del mundo. No es posible trazar un patrón general o internacional de comportamiento del consumidor, ya que varía de una nación a otra, siendo influenciado por diversos factores, en primer lugar la cultura. De hecho, el comportamiento del consumidor está influenciado por su propia personalidad, a su vez derivada de la cultura de origen. En el campo del marketing, la cultura no se considera simplemente como el conjunto de conocimientos, creencias, tradiciones, morales y costumbres de sujetos pertenecientes a la misma sociedad. Como cree Coskun Samli, "factores como la geografía, los gobiernos, los negocios y la economía están altamente relacionados con la cultura" (Samli, 1995: 55-57).

Por lo tanto, las diferencias socioculturales de los consumidores en diferentes partes del mundo deben considerarse una consideración básica para el desarrollo y el aumento de las estrategias de marketing internacional. Las diferencias culturales, especialmente las lingüísticas, tienen un fuerte impacto en el lanzamiento del producto en el mercado, en la campaña publicitaria de este producto y en la presentación de su marca. Por ejemplo, Coca-Cola tuvo que retirar sus botellas de 2 litros del mercado español, una vez que se descubrió que la población española no poseía compartimentos en los refrigeradores lo suficientemente grandes como para contenerlos. Además, la famosa empresa de la bebida refrescante, tuvo muchos problemas con el mercado chino, ya que la pronunciación de la palabra *Coca-Cola* se asemejaba a la de "Kooke Koula", que significa "Un sabroso sorbo de cera de vela". Luego, los especialistas en marketing encontraron una nueva pronunciación, "Kee Kou Keele", que significa "Sabores alegres de felicidad". La promoción de *la cera para pisos* de Johnson fracasó en Japón, ya que hizo que los pisos de madera fueran resbaladizos, y no se tuvo en cuenta el hábito de la población japonesa de caminar descalzo en la casa.

Los siete restaurantes *McDonald's* de la India se extendieron allí hace unos años, ya que la gran multinacional se enfrentó a un mercado en el que el 40% de las personas son vegetarianas, con una hostilidad hacia la carne de cerdo y el pescado congelado. Para satisfacer estos gustos, McDonald's entendió que no solo había una necesidad de las hamburguesas adecuadas: los consumidores de hamburguesas vegetarianas querían asegurarse de que se cocinaran en áreas separadas de la cocina con el uso de diferentes utensilios. Sándwiches como *McMasala* y *McImli*, y la promesa de la próxima introducción de chips de especias, son algunas de las estrategias que han permitido que la cadena se extienda a la India y otros países asiáticos.

En la red económica italiana, encontramos algunos ejemplos de empresas que de alguna manera han adoptado el modelo de comunicación intercultural. En primer lugar, Poste Italiane, que ha puesto en marcha el denominado Proyecto Multilingüe para hacer frente al nuevo contexto y escenario de mercado que cada vez se está asentando en nuestro país y que ve un aumento progresivo de la presencia de inmigrantes y un consiguiente interés por este segmento de la población. Con este proyecto, la compañía ha creado unas oficinas de correos multilingües, ubicadas en las zonas donde se encuentra la mayor densidad de población para cada grupo étnico.

De esta manera, además de la estructura básica de la oficina de correos clásica, el cliente puede elegir el mostrador a utilizar ya no en función del servicio deseado (postal, financiero, titular de la cuenta), sino en función del idioma hablado. También puedes aprovechar salas de consulta específicas en las que pedir préstamos, realizar inversiones o pólizas de seguros con consultores especializados no solo en finanzas sino también en idiomas extranjeros. Este tipo de oficinas se encuentran principalmente en las grandes ciudades y en las zonas con mayor rotación de turistas o con mayor presencia de comunidades extranjeras. En primer lugar, la Oficina de Correos de Roma Termini, seguida de Prato, Turín, Nápoles, Bari, Palermo. Además de los clásicos idiomas internacionales y turísticos como el inglés, el francés y el español, encontramos especialistas en árabe, chino, japonés, ucraniano, ruso, rumano y albanés.

En este sentido, Poste Italiane ha iniciado un camino orientado hacia la responsabilidad social y corporativa en la creencia de que ésta representa, en un mercado cada vez más competitivo y abierto a los activos, una palanca estratégica para posicionar objetivos. Reiteramos la oportunidad de aumentar el compromiso con la comunidad y de esta manera, Poste Italiane, también por la importancia que tiene dentro del sistema del país, pretende ser parte activa en el proceso de integración progresiva de los diferentes grupos étnicos presentes en nuestro territorio, protegiendo a los llamados clientes “nuevos residentes” y facilitando la comunicación con las instituciones financieras. Por lo tanto, es evidente la voluntad de la empresa pública histórica de querer combinar la lógica empresarial con principios y valores éticos sin perjuicio de la intención de mejorar los recursos internos. Este proyecto responde plenamente a una necesidad de modernización.

El sistema legal de cada país también es un factor que influye en el proceso de comercialización. De hecho, una empresa debe tener en cuenta no solo las leyes, regulaciones y restricciones de su país de origen, sino también las del país con el que quiere comerciar.

De hecho, han pasado a la historia algunos anuncios que precisamente en el contexto de la multiculturalidad, han despertado el enfado de los personajes representados o de las instituciones vinculadas a ellos. En primer lugar, el anuncio de Benetton, que, para promover una cercanía entre los pueblos y las religiones, representaba un beso en la boca entre el entonces Papa Benedicto XVI y el Imam musulmán. En este caso, la intención de Benetton era promover “la cercanía entre los pueblos, las religiones, las culturas, en la comprensión pacífica de las razones de los demás a través de imágenes deliberadamente fuertes”, pero la Iglesia respondió rápidamente que la imagen del Santo Padre no puede ser manipulada y explotada en el marco de una campaña publicitaria con fines comerciales. Así, incluso Abdul Abderraim, uno de los imanes de la mezquita de Roma, pidió que la autoridad judicial italiana, “en pleno respeto del laicismo del Estado, tome medidas contra ataques similares contra religiones, ya sean católicas, islámicas o cualquier otra creencia religiosa”.

La cultura, por lo tanto, puede considerarse una especie de metalenguaje, que es central para el proceso de marketing cuando se ve como un intercambio, una comunicación. Todo el proceso es como un juego de rol que indica implícitamente cómo las personas interactuarán en una relación de intercambio, sus constantes y sus diferencias en el comportamiento y las decisiones. En nuestro mercado, las dos características de la forma de ser de los italianos que son proporcionadas con mayor frecuencia por el observador extranjero, son ciertamente el familismo y el individualismo. Son, por supuesto, estereotipos triviales. Sin embargo, los estereotipos étnicos surgen de observaciones a menudo exactas: existen personajes nacionales, ya que se sabe cómo pueden ser diferentes costumbres, valores étnicos y mitos de un lugar a otro. La forma en que aparecen los italianos se refiere a una realidad histórica precisa: la parte compleja radica en conectar todos los eventos sociales, económicos, culturales y po-

líticos con estas características nacionales de los italianos. La dificultad radica en identificar los pasos por los cuales la historia de un país se convierte en el conjunto de rasgos de comportamiento de sus habitantes, transfiriéndose a su forma social de ser (Galli Della Loggia, 1998:87).

Propongo a continuación algunos ejemplos prácticos tomados del mundo de la publicidad, que, en el contexto de la comunicación cultural y la comparación entre la cultura italiana y española, muestran cómo a través del marketing y la publicidad, los estereotipos italianos se transmiten en España a través del uso de marcas italianas y no italianas.

1) Año: 2010

Marca: Buitoni

Transcripción del monólogo:

Narrador: *“Si el sol de la Toscana se pudiera amasar y la alegría de vivir se pudiera comer, también serían ingredientes de nuestra pizza nueva, La Toscana Buitoni. Nuestra pizza más rica e ingredientes frescos y naturales. La Toscana de Buitoni: lo mejor de la Toscana en una pizza.”*

El anuncio comienza con dos jóvenes amantes sentados en un césped con una bicicleta a un lado. El narrador describe los ingredientes de la pizza y la Toscana en términos de alegría de vivir y calidez del sol. Posteriormente, los dos jóvenes se unen al resto de la familia en una villa de campo típicamente toscana, y todos se reúnen alrededor de la mesa cargados de productos saludables y genuinos. La pizza se coloca en el centro y comienza el almuerzo. Entre los estereotipos transmitidos, encontramos:

- institución de la familia: en este anuncio prevalece ciertamente el valor de la familia. Toda la escenografía del lugar reproduce una familia numerosa y alegre que se reúne para almorzar
- *prodotto* artesanal: el narrador y las imágenes enfatizan los ingredientes saludables y frescos utilizados para hacer pizza. Además, se mezclan elementos abstractos y concretos a medida que se compara la masa de pizza al sol, y el sabor del producto con la alegría de la vida
- *buoni* valores: el anuncio enfatiza la importancia de valores saludables como la unión familiar, estar juntos, disfrutar de las pequeñas alegrías de la vida y el amor.

### **3.1. Marketing inbound e outbound**

Para llegar a una correcta definición de las estrategias de comunicación política y teorización del elemento innovador, es importante y útil partir de un concepto de marketing, identificado como *inbound* marketing y *outbound* marketing. (Blythe, 2013:216)

#### **3.1.1. Inbound marketing**

Como se puede deducir de la palabra *inbound*, literalmente “entrante”, este tipo de marketing consiste en un proceso que viene del exterior. El término se utiliza a menudo en el centro de llamadas para identificar la gestión de las llamadas entrantes y el servicio al cliente relacionado y la gestión de problemas.

En la literatura, “el *inbound* marketing es un conjunto de estrategias digitales enfocadas a ser encontradas por personas interesadas en un determinado producto/servicio, atraídas por una marca para la que se convierten en contactos y luego en clientes o promotores. Aún, manteniéndonos en el campo de las definiciones, según dice Hubspot, cuando hablamos de software de automatización de marketing, es una metodología que quiere atraer clientes a través de la creación de contenidos y experiencias valiosas que están diseñadas para adaptarse a sus necesidades. Atraer clientes es, por lo tanto, la palabra clave y para ello es necesario estudiar cuidadosa y rigurosamente cómo las personas pue-



den llegar a esa empresa. El fundador y CEO de Hubspot, Brian Halligan, y el cofundador Dharmesh Shah hablan sobre el inbound marketing y el concepto de volante de inercia que se basa en 3 acciones fundamentales: atraer, involucrar y deleitar. Acciones que permiten crear una relación con el usuario y transformarlo de un desconocido o simplemente curioso en un contacto primero y finalmente en un comprador. (Blythe, 2013:216)

### **3.1.2. Outbound marketing**

Quienes han trabajado en un call center, saben bien que, si inbound son llamadas entrantes, las llamadas salientes se definen con la palabra outbound, es decir cuando, en lugar de esperar a que una persona pida información, es la misma empresa la que se ponga en contacto con ellos. El outbound marketing se basa por tanto en un tipo de promoción “push” que trata de captar la atención para convencer a la persona de comprar ese producto o servicio. Es un tipo de publicidad que se centra exclusivamente en lo que la empresa tiene para ofrecer. ([www.glossariomarketing.it](http://www.glossariomarketing.it))

Las principales diferencias entre inbound marketing y outbound marketing

Las diferencias entre las dos metodologías son básicamente:

1. inbound se basa en las necesidades de las personas en ese momento en particular, mientras que outbound se centra en el producto o servicio que una empresa puede proporcionar;
2. el inbound marketing personaliza el mensaje, el outbound hace una comunicación de uno a muchos, es decir, lanza un mensaje a multitud de personas;
3. el inbound da solución a la persona cuando está buscando información o tiene un problema, el outbound interrumpe a la persona mientras tal vez está haciendo otra cosa;
4. el inbound marketing está estrechamente ligado al permission marketing, es decir, utiliza medios a los que el usuario ha dado permiso, outbound explota todo lo que tiene a su disposición;
5. inbound hace que las personas sean protagonistas con sus necesidades y sus historias, outbound tiene como objetivo captar la atención de la mayor cantidad de personas posible;
6. el inbound se centra tanto en contenidos como artículos, blogs, emails etc..., el outbound en comerciales, flyers, pop-ups etc...

Como puedes ver, el inbound marketing y el outbound marketing parten de diferentes razones y llegan a situaciones que difieren aún más. El método inbound implica un análisis estratégico profundo de quiénes son los posibles clientes. Comienza con el análisis de buyer personas, es decir, tipos de posibles clientes, imaginarios sí, pero con características extremadamente reales. ([www.glossariomarketing.com](http://www.glossariomarketing.com))

Analizamos su comportamiento online o offline, tratamos de entender qué necesidades tienen, cómo es un día típico para poder entender, en qué es el customer journey, cuándo comunicar un determinado concepto. En el outbound más que en persona hablamos de target. Es decir, un segmento de audiencia que tiene una definición muy amplia y que se realiza a través de encuestas en las que se analiza la población por “bandas”: edad, género, lugar donde vive y así sucesivamente. Es decir, pensamos en características que no son estrictamente específicas pero que pueden unir, por ejemplo, a todas las personas que tienen entre 30 y 40 años en Italia y así sucesivamente. Es decir, la audiencia está segmentada según variables geográficas, sociodemográficas, conductuales y psicográficas. Con buyer personas vas más profundo. ([www.glossariomarketing.com](http://www.glossariomarketing.com))

Personalización vs generalización: podríamos decir si queremos sintetizar al máximo. La personalización lidera una empresa que utiliza el inbound marketing para crear una relación con el usuario

que se materializará cuando decida pedir más información, rellenar un formulario de contacto, escribir un correo electrónico etc. La generalización significa que precisamente el outbound marketing va hacia un público definido, el target, pero muy heterogéneo que por la fuerza de las cosas es difícil personalizar el mensaje. Por lo tanto, en este caso, el público se apega a la marca o al producto muy específico, independientemente de su necesidad en ese momento. Lo que significa que, si llega un producto que de alguna manera es más “atractivo”, el cliente puede irse.

Por ejemplo, si un target de personas de entre 20 y 25 años prefiere una determinada marca de moda porque los representa, los identifica, bastará con otro que pueda hacerlo de manera diferente o que lo lleve una persona famosa o en el que este target se reconozca a sí mismo para perder a estos clientes. Se trata de personas que se identifican con el producto y que es fácil perder porque en realidad no se ha establecido la relación que surge de satisfacer una necesidad personal. Esto obviamente afecta a los diferentes medios que se utilizan para el inbound marketing y el outbound marketing. Atraer, enganchar y deleitar, como decíamos, es según el fundador de Hubspot a lo que debe aspirar el inbound marketing. (Blythe, 2013:218)

#### 4. CONCLUSIONES

Partiendo de la definición de marketing, estudiamos y desarrollamos las similitudes de la comunicación política con el lenguaje publicitario y por extensión con el marketing, pero sobre todo profundizamos en el concepto de inbound y outbound marketing y en relación directa con las teorías expuestas anteriormente con respecto al concepto de manipulación y con respecto al mundo social, ahora somos capaces de determinar y teorizar un concepto nuevo e innovador, nunca teorizado en la literatura. Sobre la base de todo el material pasado al análisis, y un cuerpo de datos muy concentrado, podemos decir que la comunicación política y por extensión el concepto de manipulación, se divide en dos grandes macro categorías:

- a. *Comunicación política outbound*: es el tipo de comunicación y manipulación llamada agresiva. Por asonancia con el mundo del marketing, en el que el outbound marketing se identifica como un marketing que entra en la vida de los consumidores con fuerza, sin ninguna petición o filtro por parte del destinatario, podemos definir la comunicación política saliente como ese tipo de comunicación manipuladora que los políticos llevan a cabo hacia los ciudadanos, reiterando y concretando su idea y su creencia con frases a efecto y píldoras continuas emitidas diariamente, que lleven a los ciudadanos, especialmente en la parte social baja o media-baja del sustrato, a interiorizar el principio haciéndolo suyo y utilizándolo como fuente de confrontación e ideal o ideológico en contextos sociales, incluidos los electorales destinados a transmitir una idea política o un contenido. La estrategia del político es en este caso ganar consensos según un esquema ramificado: el político comunica su idea durante mítines, discursos políticos, publicaciones sociales de manera continua y cotidiana con ejemplos en apoyo para llegar al paso de la internalización por parte de cada ciudadano que por boca a boca o mercadeo en red son capaces de concretar o modificar la idea de otros ciudadanos. Esta es la comunicación política adoptada en Italia por Giorgia Meloni, Matteo Salvini y Silvio Berlusconi durante las últimas elecciones políticas o en algunos aspectos también por el Movimiento 5 Stelle, un tipo de estrategia populista y popular, al menos aparentemente cercana a los grupos más débiles y con programas electorales del lado de cuestiones críticas arraigadas en el sistema social.

b. *Comunicación política inbound*: es la comunicación política filtrada, en este caso de mayor calidad, o más bien en asonancia con el marketing y con el contexto comercial, la asistencia a clientes necesitados de obtener respuestas o aclaraciones respecto a ese ideal político. En este caso, los ciudadanos ya han elegido a quién votar o a quién compartir su proyecto e ir de forma independiente a profundizar o pedir luz sobre lo que se propone. El trabajo del político debe ser y en este caso aquello para dar explicaciones detalladas y de alto nivel, preparar programas y contenidos de alto nivel no solo en contenido sino sobre todo en forma, para no arriesgarse a que el ciudadano, insatisfecho vaya a profundizar más contenidos que en este caso pueden perder el voto. En este caso consideramos un tipo de estrategia política o “manipulación indirecta” desarrollada por ejemplo, dada la muestra italiana utilizada por Calenda o Letta.

Sin embargo, la manipulación bidireccional también entra en esta categoría, es decir, si la comunicación política saliente puede identificarse como una manipulación directa del político hacia el ciudadano, la comunicación política inbound también puede identificarse como una manipulación indirecta de cómo los políticos pueden a su vez ser manipulados en la producción de contenido que es solicitado indirectamente por los ciudadanos.

Por extensión, podemos hablar de manipulación indirecta refiriéndose también a lobbies y grupos de presión que ejercen grupos de interés ajenos al grupo político (como empresas, consumidores y asociaciones de categorías) que llevan a convencer al exponente político con respecto a una elección o incluso invitan al político a esperar un momento indeterminado antes de obtener un determinado desempeño solicitado por el propio político. Esto se manifiesta, por ejemplo, a través de documentos y notas interlocutorias de grandes empresas o sus oficinas institucionales dirigidas a políticos de alto nivel.

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## 9. Collaboration of teachers and counselors-psychologists in the context of planning and implementing educational programs for people with special needs

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### ABSTRACT

The changes occurring in the field of Special Education with the aim of providing the best possible education for all students, regardless of their special educational needs, and promoting inclusion create significant requirements for effective educational programs that will result from interdisciplinary collaboration of teachers with other scientists-professionals working in Special Education structures. According to current trends and theoretical directions in the field of school psychology, school psychologists can contribute significantly to this goal by expanding their role to activities beyond assessment and individual counseling and treatment.

**KEYWORDS:** Teacher, educational program, special needs, counselors-psychologists.

### 1. INTRODUCTION

School Psychology, according to earlier definitions (White & Harris, 1961 cited by Merrell, 2012), is the branch of psychology that deals with the personality of the child in interaction with the educational process. Today, School Psychology is defined as the specialty of applied psychology that deals with the science and professional practice of psychology with children, adolescents, families, students of all ages, and the educational process (APA, 2011). School Psychologists apply psychological theories, concepts and techniques in order to facilitate development through education and the school (Oakland, 2007). The National Association of School Psychologists (NASP, 2008 cited by NASP 2010), furthermore, emphasizes that school psychologists work not only with students but also with teachers and students' families to support academic achievement, positive behavior and the mental health of all students and, above all, those who face barriers to learning. To cope with the above task, School Psychologists must have extensive training in assessment, guidance, child development and psychology, counseling, dialectical or interprofessional counseling, crisis management, program evaluation, and data collection and analysis. research data (NASP, 2010).

### 2. MAIN SUBJECT

#### 2.1. Fields of activity of the School Psychologist

In 1954, the first conference of the field of School Psychology in the USA officially defined for the first time the areas of activity of school psychologists as follows: "a) evaluation of the cognitive social and emotional development of the child, b) identification of children with special needs and development of individualized programs education, c) participation in the effort of children to learn and participate in school life, d) diagnosis of learning and behavior problems of students, e) development



of intervention programs and f) promotion of research to solve school-academic problems” (Nikolopoulos, 2008, p. 18). Since then, the provision of psychological services in the school context has been widely studied at an international level, demonstrating that despite theoretical approaches for an expanded role, school psychologists remained for a long time limited to an examination/diagnostic role, due to the need to categorize people with special educational needs and their inclusion in special education, in the context of a medical model of limited services, which was oriented towards individualization and dominated by psychometric evaluation (Corkum et al., 2007). Their high degree of training in the use of psychodiagnostic tools, in the interpretation of data and in the clinical characterization of individuals made them “gatekeepers” (Fagan & Wise, 2000) of the educational system, since inclusion is decided mainly based on their own evaluation of students in specific categories of special educational needs and for the way of individualized intervention. (Nikolopoulos, 2008).

## **2.2. The institution of the School Psychologist in Greece**

In Greece, there are no institutionalized psychological services in general education schools. While in other countries for decades there has been extensive reflection on the role or roles of the school psychologist, in Greece the paradox is observed that psychologists do not work in typical public education schools, but only in special education schools (Dimakos, 2006). The existence of psychologists is foreseen in the Youth Counseling Centers (Law 1894, 1990) and in structures related to Special Education. In particular, the existence of psychologists in the KEDDY (formerly KDAY) and in the School Units of Special Education and Education is foreseen (L. 2817/2000, L. 3699/2008). The appointment of a significant number of psychologists in public special education, both in SMEAE and in KEDDY in combination with the establishment of autonomous departments of Psychology and postgraduate specialization programs in School Psychology since the 1990s gave impetus to the development of the School Psychologist institution in our country (Hatzichristou, Polychroni, & Georgouleas, 2007).

The role of the psychologist in special education, as described in the current legal framework, tries, at least in some places, to approach the effort to strengthen and consolidate the action of the school psychologist observed in European countries and America (Jimerson et al, 2008).

It is clear that the implementation of Laws 2817 (2000) and 3699 (2008) on the Education of Individuals with Special Educational Needs led to changes in the provision of psychological services in the Greek educational system. It established a more active role for school psychologists and the provision of psychological services within the school.

But, as Dimakos (2006) points out, the education system in Greece is teacher-centric in the sense that teachers take on roles that in other education systems are assigned to other specialties. Thus, although the formation of interdisciplinary teams in KEDDY takes care of the evaluation of students with special educational needs, the implementation of programs and their evaluation and issues such as crisis management, communication with the family is still, basically, a matter for teachers.

Regarding the qualifications of the school psychologist in Greece there is no specific legislative framework that allows the exercise of clinical work only after specific postgraduate studies and certification of clinical competence (Nikolopoulos, 2008). The license to practice a profession is granted to all graduates of Psychology Departments. Very recently, of course, a relevant opinion of the Legal Council of the State (2011), probably recognizing the importance of specialization at postgraduate level, decided that in Special Education structures psychologists with specialization in pedagogical or school psychology are appointed first.

### **2.3. Educational programs in Special Education**

The institutional safeguarding of the rights of people with Disability or SEN did not in practice ensure the provision of appropriate and quality education, which seems to remain the demand in the modern educational reality (Pandeliadou & Argyropoulos, 2011).

Special Education means - or should mean - specially designed educational programs adapted to the special characteristics, abilities and difficulties of the child (Polychronopoulou, 2012). The concept of special educational programs is broad and can refer either to the flexible Analytical Programs, or to the program of the Department of Integration for students attending the general school, or to the teaching of sign language, to teaching with the braille method, to the education of the blind in subjects mobility skills of daily living (Polychronopoulou, 2012), or in the Individualized Educational Program which is the focus of legislation for Special Education worldwide and incorporates all the above elements.

#### **2.3.1. Detailed Programs (DP)**

Curriculum (CU) as defined by Doll in 1996 (cited by Farrell, 2008, p.11) is defined as the formal and informal content and processes through which students acquire knowledge, understanding, develop skills and form judgments and attitudes under the school context. CP includes the content, aims and objectives of teaching and learning, the design and structure of what is taught. The DP can be viewed and organized by subject (math, language, etc.) or by domain (academic performance, communication, etc.).

CPs in Special Education were for many years different from those in General Education, but in the last 20 years the promotion of inclusion and the revision of educational programs with the main criterion of providing a minimum set of educational experiences common to all students have pushed and are pushing towards revision of the CU in the field of Special Education (Rose, 2007). It should be pointed out that in our country only in the last decade a systematic effort was made to create special education centers for people with special educational needs. The lack of such special education centers resulted in huge differences in the content and goals of teaching in the various special education units. or unsuccessful attempts to implement the general school's CU. These conditions create serious doubts about the effectiveness of special education in our country (Polychronopoulou, 2004). However, at least theoretically and according to the Special Education Analytical Program Framework (SPFA) the goal of Special Education is "to support people with Special Educational Needs (SEN), so that they can be promoted physically, mentally, emotionally, socially, morally and aesthetically to the extent that their capabilities allow and finally to join the school and social environment, in a climate of equality, freedom, security and respect for their personality". In the methodological guidelines that follow, it is emphasized that in order for the implementation of the SPFA to be effective, it is necessary to follow a specific teaching process, which mainly includes: "a) Evaluation of the children, recording and assessment of their potential, difficulties and educational needs. b) Selection of teaching objectives and planning of teaching programs. c) Use of modern strategies, means and teaching methods during the implementation of the teaching programs. d) Evaluation and recording of students' progress and feedback of teaching programs. e) Final evaluation, selection and promotion of disabled persons who are deemed capable of joining the common school" (P.D. 301/1996).

#### **2.3.2. The Personalized Educational Programs**

The preparation of special educational programs is a complex process. In the Individualized Educational Program (IEP) which in Greece, according to Law 3699 (2008), is basically the responsibility

of the KEDDY, specific goals are set for the educational intervention (Deligiannis & Koltsidas, 2007). SEN are internationally the 'heart' of disability legislation (Pierangelo & Giuliani, 2007) and it is important that they are developed to be an effective tool for teaching students with SEN and assessing their progress (Taylor & Harrington, 2003). The IEP of every student with SEN must include the following elements: The participants in the process, the identification of the student's educational needs, an overall assessment followed by the Individualized Education Program framework, in which the educational needs and priorities are described, the proposed services, duration, long-term and short-term services (Deligiannis & Koltsidas, 2007). For the formation of the IEP and in general the AP in special education, the existence of an interdisciplinary team is required which includes, in addition to the General Education teacher - if the child attends the general school - and the Special Education teacher and other specialties, such as a psychologist (counselor), speech therapist, social worker, doctor, trainer (Thomas, Correa & Morsink, 1995). Who will participate each time theoretically depends on the child's problems, but in practice, it often depends on the availability or not of the various specialties (Tsitsibis, 2010).

In particular, the IEP includes or may include information a) on the child's current situation (assessment profile), with reference to the results of recent assessments, on the type and degree of the problem b) on the long-term and short-term goals of the program, c) for teaching methods, d) for the type of educational help and support that will be provided to the child (e.g. psychological support, speech therapy, individualized teaching in PE), e) for the duration of the program and for the participants both in the evaluation of the child and in the design and implementation of the program (Christakis, 2006. Polychronopoulou, 2012. Patsiodimou, etc.). Also, the IEP needs to describe in detail how the disability affects the student's participation in the IEP, in addition to the field of academic achievement and the fields of social and physical development - to the extent that these may hinder the learning process - and school environment, e.g. if there is a need for modifications in the room, for the presence of other professionals, such as the parallel support teacher and for educational materials (Pierangelo & Giuliani, 2007).

In the IEP, the choice of the specific educational framework proposed for the particular student is adequately explained (Pierangelo & Giuliani, 2007). In addition, the support services that the student needs from other specialists, such as the speech therapist, psychologist, physical therapist or social worker, should be specified and the necessary direct and indirect counseling services and assistive technology should be described (Polychronopoulou, 2012). This includes, where necessary, social skills training to address the student's social deficits and enhance self-esteem (Pierangelo & Giuliani, 2007). It is also very important to give clear information not only about the areas in which the student lags but also about specific activities in which he fails, as well as about the activities and exercises that the child performs with fluency (Pandeliadou, 2011). It is also necessary to describe the necessary modifications and arrangements in the school environment (e.g. the position of the student, individual teaching or in small groups), the modifications in the teaching according to the learning style of the student, the modifications of the teaching materials, the modifications to the student's tasks-tasks, the possibility of assigning alternative tasks that do not require skills that the student does not possess, the appropriate learning strategies (Pierangelo & Giuliani, 2007).

Necessary for the design and implementation of an effective SEN is the clear formulation of annual and short-term goals in a way that is understandable, accurately describing the skill or behavior that the student will master (Pierangelo & Giuliani, 2007). Establishing annual and short-term goals should be done in a measurable manner (Sacks, 2001) which includes both establishing objective

assessment procedures to measure student progress as well as determining the evaluation intervals (Pierangelo & Giuliani, 2007). The clear description of the evaluation criteria of the results of the SEN in terms of the child's progress and the readjustment of the SEN at least once a year is necessary (Christakis, 2006).

Evaluation is a highly complex process that must be conducted by a multidisciplinary team of appropriately trained professionals and involves both formal and informal methods of data collection. The interdisciplinary team has the ability to choose the tests to administer, but these, according to the law, must not be limited to weighted tests. Interviewing everyone involved and observing the student in different settings is particularly important. The evaluation has many stages and must be done in an appropriate way. Decisions on student categorization are not made by an individual, but by the interdisciplinary team. (Pierangelo & Giuliani, 2008). The assessment, therefore, of the student should be as functional as possible, that is, both the tools and the content of the assessment should be directly related to the programs provided to him (Bailey, 1998).

### ***2.3.3. The participation of the school psychologist***

In the interdisciplinary team, the school psychologist conducts standardized assessments, such as the administration of individual intelligence tests, projective tests, personality tests. Also, it can use methods of observing the student in a variety of environments with the aim of assessing how different environments affect the student and his performance, i.e. conducting ecological assessment (Pierangelo & Giuliani, 2008).

The main areas of evaluation, in which the psychologist's role is decisive, are: 1. Intelligence and cognitive functions, 2. Perceptual abilities, 3. Behavior and 4. Emotional and Social Development (Panteliadou, 2011. Pierangelo & Giuliani, 2008). Also, the psychologist can contribute to the evaluation of Language and Academic performance, although these fields are the focus of the educational evaluation, for which the teacher is mainly responsible (Pandeliadou, 2011).

The school psychologist can interpret the results of the above tests in the form of teaching instructions, if of course he is prepared and qualified for this, supervise the evaluation procedures carried out by the teachers, be selected directly with the teachers and parents and provide training in behavior management techniques (Sacks, 2001). An important issue that arises is that, although the diagnostic assessment provides information that theoretically helps the teacher to draw up the appropriate educational program, many times some terms or indicators are not helpful, the results are described in only a few lines and the use of special terminology, the child is labeled and the teacher does not benefit from the information provided by the diagnosis (Pandeliadou, 2011). In addition, the psychologist - as well as other specialists - are definitely involved in the formation and implementation of the SEN when the student needs related support services. If their personal participation is not easy, they provide a written report on the nature, frequency and quantity of the relevant services (Pierangelo & Giuliani, 2007).

As far as educational practice is concerned, psychologists do not teach academic skills directly to students, but contribute to better learning outcomes through indirect services, such as multi-objective assessment (from the proposal for inclusion in the STEM to monitoring progress in Response to Intervention and dialectical counseling for problem solving) (Berninger, Fayol & Alston-Abel, 2011).

### ***2.2.4. Cooperation of teachers and psychologists***

It is clear that collaboration in interdisciplinary teams is very important to the delivery of evidence-based and effective special education programs. In such an approach, the dominance of a

member of the specialized educational staff, e.g. the psychologist over the special pedagogue, is not acceptable. A major problem here is that the medical model that has dominated special education for decades is based on such a hierarchy (Bailey, 1998). Education professionals were for many years separate entities with their own language, which combined with differences in knowledge levels and skills made communication difficult (Thomas et.al., 1995).

However, changes in education are leading to a move away from the medical model and to the adoption of a collaborative holistic approach with shared decision-making and support in the classroom as main features and with the aim of ensuring quality learning outcomes for all students (Forlin, 2010), the need for collaboration becomes imperative.

As pointed out by Thomas et.al. (1995), the need for an interactive model based on dialectical counseling, collaboration, and group decision-making is vital because of the number of students who have special educational needs or are at risk of school failure. None of those involved in their education can individually provide them with appropriate educational programs. In addition, the promotion of cooperation in education and especially in special education is linked to a large extent to social, political and economic reasons that lead from time to time to the reformation of educational systems (e.g. desegregation of schools, creation of small classes, school innovations, such as the open classroom, staff development). Collaboration within the education system is mandatory to improve educational opportunities for all students, especially those with special needs or disabilities. (Taylor & Harrington, 2003). The time of trained professionals and the limited resources of public education systems are too valuable to be wasted on uncoordinated or similar efforts that provide only marginal results for students with special needs (Thomas et al., 1995).

The emphasis on the concept of cooperation does not mean that it does not face problems. First, there is a skepticism of teachers about the contribution of psychologists, in the sense that teachers, although they value psychometric test scores as a frame of reference, need information immediately usable in the classroom, in a language they understand. The reality is that although - on the one hand - many psychologists have the knowledge, experience and interest to meet the needs of teachers, many - on the other hand - either lack the knowledge or fail to meet these needs (Bailey, 1998). Teachers, too, may feel that their identity is threatened in their preeminent professional field (Poulou, 2002). The different educational orientation can create a contrast between the perspective of the teacher and that of the psychologist. The absence of a real understanding of the various specialties and school services that professionals in those specialties and how these services might be used as part of the teacher's classroom program can further hinder collaboration. Furthermore for some teachers there may be a prestige issue in the sense that there is often a false expectation that as a professional they should know what needs to be done and any indication that they need 'help' may have a negative impact on others' perceptions of his abilities (Brown et.al, 2006).

Difficulties may also arise from the lack of knowledge about the structure, organization and operation of SMEAs, the insufficient logistical and technical infrastructure, the psychologist-consultant's lack of special knowledge of a practical nature, insufficient logistical and technical infrastructure, the insufficient information of the school members about the role of the consultant and from the need to deal with numerous and different problems (Siriopoulou-Dellis, 2005).

Many school psychologists feel that their role is often misunderstood, employers make unreasonable demands on them and parents and teachers have unrealistic expectations of what they can achieve. Also, that their contribution is not valued as much as other professionals in related fields (Farrell, 2010).



Finally, important variables that influence collaboration are available time, administrative support (Brown et.al., 2006) and the provision of counseling services by other staff members or by experts, such as the school counselor, who in Greek educational system is considered to be responsible for the scientific and pedagogical support of teachers. (Government Gazette 1340, 2002)

### 3. CONCLUSIONS

For the educational support of students with learning and adjustment difficulties, the diagnostic process is not enough, from which, as Agaliotis (2012) points out, only general information about their capabilities and weaknesses can be obtained. In order to design an effective program, it is necessary to collect information that will not only concern the characteristics of the student but also the goals of the specific program and the environmental factors that affect the student. Kourkoutas et al. (2010) add that based on a wealth of research data, the factors that influence the quality and effectiveness of intervention programs within the school context are: the quantity and quality of the energy available to the stakeholders in the development of the programs, guidance and evaluation, the extent of collaborative relationships between family, school staff and other community care providers, the extent of prevention and intervention services, staff effectiveness, training and supervision of staff, coordination to avoid providing similar services, the use of interventions that have empirical support, the use of appropriate evaluation strategies, the use of evaluation findings to improve programs and services. Effective educational programs, in other words, need to be addressed in the context of an ecosystemic approach and developed by interdisciplinary teams based on multi-level evaluation models. If such a model provides the Assessment System of Learning Needs, which combines various processes, in order to offer the necessary and specific information needed for the teaching support of students, as its application gives evidence of: the extent and intensity of learning and adjustment difficulties, the student's prerequisite knowledge and skills, the functionality of the educational environment, for the cognitive and socio-emotional parameters of learning and adaptation and, finally, for the effectiveness of personalized teaching (Agaliotis, 2012).

A central role in the development of educational programs is played by teachers, who are responsible for the didactic evaluation part and for their implementation. To cope effectively, they need to have an understanding of the content of the problems of children with SEN, the factors that influence learning and behavior, know methods of dealing with specific problems and possess strategies that will allow them to adapt teaching. They still need to take into account the information from the psychometric tests on the children's cognitive, perceptual functions, visual-motor skills and social behavior (Pandeliadou, 2011). Very important for all the above parameters is – or should be – the participation of school psychologists. According to the NASP guidelines (2009, 2010), school psychologists, in addition to standardized tests, can conduct a variety of assessments for a variety of questions, such as early detection, problem analysis, planning appropriate intervention, and evaluating a teacher. program. They can also contribute to the need for continuous assessment required for an educational program to be effective (Tzouriadou, 2011), since they are considered to have measurement and evaluation skills that teachers may not have (Bailey, 1998). In addition, depending on the degree programs they attended, school psychologists are also trained in subject areas such as academic skill development, effective teaching and learning strategies, which is why they can provide assistance to teachers in the area of educational interventions (Ball, et. al., 2011). The role of school psychologists, therefore, can be expanded to act as advisors to teachers in providing appropriate instruction and in effective program design (Bailey, 1998).

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## 10. The Greek legislation on the training of primary school teachers in counselling and how it is applied in the school reality

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### ABSTRACT

As social changes affect school functions, relationships and attitudes, it is nowadays considered necessary to provide counselling in the school environment. and because greek legislation does not provide for the tenure of school counsellors, school psychologists or special educators in each school community as an integral member, so the teacher himself should be prepared with knowledge and strategies in counselling to help address various educational issues. through this research paper, the importance of counselling in education, the counselling role of the teacher as part of his/her work is highlighted and what is currently provided in the greek legislation on counselling in education and on the training of teachers themselves in counselling is presented. finally, the views of teachers on their advisory role and the necessity of its existence in the educational process are mentioned.

**KEYWORDS:** counselling, school counselling, counselling in education, teacher's counselling role, teacher's training in counselling, primary school.

### 1. INTRODUCTION

In our modern times, people are witnessing rapid social changes in the world and have to cope with a variety of difficulties in the social, political and economic spheres. they have to deal with problems on a daily basis, sometimes of minor importance, sometimes more intense problems, which translate into rates of poverty, crime, unemployment, violence and migration. school well-being and student achievement, such as expected, are negatively affected. furthermore, many things are changing rapidly in the school world today, such as in the rest of society.

The school environment is now more vulnerable than ever, with daily problems multiplying and unable to be resolved effectively. thus, through the literature review it emerged that in order to support, help and encourage students who are more vulnerable in such situations it would be beneficial to implement in the school context a counselling and not only advisory program, which is research proven to offer multiple benefits to both students and their families, as well as to the educational community itself. and because in the school context the role of the teacher is crucial, he or she could also act in a counselling capacity towards the student, in order to meet his or her needs, to help him or her cope with difficult situations, to empower him or her psychologically and to act proactively on crises and behaviours within the school community. for this reason, it is initially necessary to train teachers in counselling and to work together with psychologists, special education teachers and school counsellors. furthermore, greek legislation should practically include counselling in schools and establish training for teachers in counselling, as one of their roles is counselling.

## **2. THE MEANING OF COUNSELLING**

Counselling is a process of communication and interaction between the counsellor and an individual or group of individuals, which has positive effects so that the individual can enhance his personality and improve his functionality and quality of life. Similarly, malikiosi-louizou (2011) refers that the term counselling is used to describe the process in which a person receives help through discussion in order to clarify thoughts and feelings, overcome difficulties and learn more about themselves.

In counselling the individuals involved communicate with each other with the main aim of the therapist-counsellor to help the individuals to be able to cope and manage their problems on their own. These problems may relate to their interpersonal relationships, their relationship with themselves, their working life, their capacity to adapt to difficult situations. It can also work at a proactive level, as an effort to keep people informed, educated and aware.

Similarly, school counselling is not just giving advice, but is concerned with the development and adaptation of pupils in the educational environment. School counsellors are vital members of the school community who work closely with teachers and parents to support the whole student population of a school in fields such as academic achievement, personal and professional development (theodoropoulou & prodromou, 2015).

## **3. THE IMPORTANCE OF COUNSELLING IN EDUCATION**

In the 21st century, education is considered of the highest importance worldwide. However, there are dangers that could hinder the progress of education if the right measures are not taken. Education is a very vital source of enlightenment and should be highly valued by all levels of education, primary and secondary. One of the means of improving, maintaining and developing education is counselling. For counselling to be considered successful, the school environment should be governed by the principles and values of counselling, and the attitude of teachers should be positive and receptive to what counselling stands for and accept cooperation with counselling specialists. In addition, it is very important that teachers are aware of what counselling is, so that they do not hinder or abuse this service.

According to research, the contribution of counselling in education has significant benefits. Through counselling, students are guided to deal with personal and social problems by qualified professionals and are able to manage special situations from their school age. Some of these problems that students are likely to face are low academic achievement, anxiety, inability to manage their time, skill acquisition, daily study. Students may also experience behavioural and delinquency problems or may not be able to choose which career to choose. Counselling also helps students to regulate behavioural issues in order to improve their relationships with peers and strengthen interpersonal relationships. Therefore, through counselling, students learn to manage their problems and function effectively.

Also, teachers' counselling skills are important for building good interpersonal skills in the school setting and can enhance the creation of a favourable climate for learning and general effectiveness of the school's work. This reinforces students' positive attitudes towards school, and they seem to enjoy the learning process more. In addition to enhancing learning, counselling plays an important role in both the social and academic development of students and the effectiveness of the school and it is considered important to have this institution in schools in order to achieve the best possible psychosocial development of the student and of the student population.



It is also important that the implementation of counselling in schools achieves the cooperation of teachers and parents with special counsellors, which is considered essential in today's world for the social, academic and emotional growth and development of the student.

Similarly, according to mavromitos (2023), counselling in schools and early intervention with primary school children contribute significantly to the prevention of long-term mental health effects such as anxiety or depression. counselling is also considered particularly important for pupils with special educational needs, with the main aim of improving their self-image, social skills, behaviour, cognitive skills and choice of future career.

Finally, students with or without some form of difficulty will be asked to use these skills, gained from counselling, in school, in the workplace, in the community and in everyday social encounters for the rest of their lives.

### **3.1. The goals of the school counselling**

- support,
- help for self-help,
- empowerment,
- encouragement and
- arming students with courage, boldness, determination and self-confidence

### **3.2. Benefits of the school counselling**

- preparing students for the challenges of the 21st century through academic, professional and personal and social development
- connecting the training programme to future achievement.
- encouragement for the exploration and development of careers.
- developing decision-making and problem-solving abilities.
- helps in developing knowledge of self and others.
- fosters positive personal development.
- helps develop the development of effective interpersonal relationship skills.
- expands awareness of our changing world.
- provides an advocacy for learners.
- encourages facilitative, cooperative interactions between peers.
- it strengthens students' resilience factors.
- provides equitable access to educational opportunities.

## **4. COUNSELLING IN EDUCATION IN GREECE**

The term "counselling" first appeared in greece in the 1950s, when the ministry of education introduced vocational guidance in the country's schools, with the aim of helping students to choose their career path. since then, greece has established the role of the psychologist in structures mainly related to special education, such as special schools or mental health centers.

Although school counselling is an already well established and active situation for most educational systems, for the greek educational reality, its implementation in the school setting is still a matter of remains the ultimate goal of a utopian perspective. moreover, the implementation of counselling by

psychologists is restricted and has several limitations, such as the poor specialization of psychologists in the field of counselling.

Therefore, the main concern of schools should be to support not only the learning needs but also the psychosocial needs of children and teenagers, especially as many pupils with severe problems have limited availability of such support.

## **5. COUNSELLING IN SPECIAL EDUCATION IN GREECE**

As mentioned above, in Greece, counselling is mainly applied in special education and focuses on students with learning, developmental, socio-emotional difficulties and disabilities. Thus, the counselling that is currently applied in Greek schools concerns areas such as the monitoring of students in their home or other settings, the implementation of interventions, the provision of psychological support, the referral of an individual to specialist services, the study of issues relating to the student, information, planning, programming, and evaluation with psychodiagnostic tools. In addition, counselling in special education can have as its focal points those of orientation, decision making, facilitation and adaptation of students to different educational levels, in their professional and vocational life. Finally, it can be related to the provision of information and support to parents of pupils with disabilities or special educational needs in order to be able to support their child and contribute to the intervention in the child's home.

## **6. THE COUNSELLOR**

For counselling to be successful in education, an important and essential role is played by the counsellor who will practice it. Not just anyone could do counselling, especially to school-age students. All who are involved in counselling should be properly trained with experience, skills and knowledge. Therefore, psychologists, psychotherapists, professionals trained in counselling, school counsellors, special educator, mental health counsellors are considered the most qualified for this process. Moreover, counselling could also be carried out by the teacher of a school, who would be equipped with appropriate knowledge and techniques on counselling.

### **6.1. The role of the counsellor**

The qualified counselling professional should be governed by empathy, self-awareness and also sincere interest, which are considered important elements to be successful and effective in his role (Malikiosi-Louizou, 2017). Also, must be a person who inspires confidence and provides a safe environment in which the person being counselled can confidently to speak freely about himself or herself. As a good listener, the counsellor must also take into account the messages sent by the person with whom he or she is speaking, observe carefully and respond to them.

The essential role of the counsellor is to combine the appropriate personality and adequate training in the several techniques and methods of counselling intervention. Also, its role should be preventive, to anticipate difficulties, educational, to help the person to benefit from as many positive experiences as possible, and therapeutic, to support the person who is directly experiencing a crucial and difficult situation.

In primary education in particular, its role can be may involve pupil counselling, group counselling, student counselling, and collaboration and conferring with teachers, administration and parents as well as teaching and evaluation.

## **6.2. The role of teacher as a counsellor**

The role of teachers in counselling is of major importance as it is through their contribution that they can develop meaningful relationships with their students. also teachers can play an important mediating role between pupils and school psychological services. therefore they should be equipped with knowledge and practices related to counselling. in addition, as the role of the teacher is multidimensional, this requires knowledge and skills to enable them to carry out their learning process and their advisory work at the same time. teachers also need improve their skills in dealing with difficult behaviours in the classroom, managing their own and their children's anxiety and develop mindfulness, as they also need to act as counsellors at a general level of attitudes and behavior.

Today, more than ever, it is considered necessary for teachers to be able to communicate more effectively with their students, as the communication gap between them has widened. furthermore, given that counselling in greek education and its implementation in greek schools is at an early stage, without any concern from the greek leadership for its further development, with insufficient staffing of school counsellors and specialized psychologists in greek schools, it is necessary to train primary and secondary school teachers in counselling issues and strategies (theodoropoulou & prodromou, 2015).

Similarly, according to nkechi, e., ewomaoghene, e., & nkechi, e. (2016) the effectiveness of teachers in the use of teaching resources is considered important to enable them to acquire the required knowledge of the content of counselling and improve their teaching with their skills. for effectiveness, experience and industriousness in a school unit, it is very important that teachers are equipped with knowledge and practices of the subject matter of counseling, effective teachers understand and are able to implement strategies to help students increase not only their academic performance but also address other life skills.

## **7. THE GREEK LEGISLATION FOR THE COUNSELLING**

In the latest circulars of the ministry of education there is a recognition of the necessity of knowledge in counselling for the new role of the teacher in today's educational landscape. however, this belief remains at a theoretical level in greece (garagani, 2017).

Also, in greece, counselling is an integrated whole with guidance and together they have created the hellenic society of counselling (el.e.sy.p.) which called "counselling - guidance". apart from some specialists definitions and specific uses of the aspects of this institution, seeing the effort as a unified whole, the institution of 'counselling-guidance' in school aims at "facilitating the student towards a holistic and healthy development, successful self-development, successful resolution of problems that may arise and making good decisions for his/her own good and for the good of the whole.

### **7.1. What the Greek legislation provides for the training of teachers in counselling**

Unfortunately, today's greek schools are not governed by the principles of counselling and teachers' knowledge on these issues remains limited and incomplete. there are no state-organised seminars for their continuous training, and so any information teachers draw from comes from their own voluntary personal search.

More specifically, primary and secondary school teachers have not been trained in the basic skills of counselling during their undergraduate studies, so that they are involved in the educational process without being able to understand the necessity of their counselling work. although, mainly primary school teachers attend courses in psychology and pedagogy with a counselling dimension during their studies.

According to researchers in Greece, many teachers are not familiar with the term 'counselling', while some believe that the term is associated exclusively with specialized counselling services, psychologists or health counsellors.

In general, counselling as a term is still today mainly associated with helping teachers and providing guidance for dealing with problems from other forms, such as psychologists or school counsellors. Although the counselling role of the teacher is considered important and useful, the Greek state has not provided for the training of teachers after graduation in counselling, both theoretically and practically.

According to Persidou (2010) the teachers can take an advisory role, as their counselling role is part of their educational work. Teachers and students are in direct contact and communication on a daily basis, so they are the ones who will give them support to meet their needs. However, a number of reservations have been expressed as to the counselling role of teachers. These reservations are related to the education and training received by teachers in the field of counselling. Moreover, the absence of school psychologists and support staff from primary education, the constant pressure of time and the teacher's obligation to cover a given curriculum may become an obstacle to the teacher's counselling work. Since today special education teachers receive more advanced knowledge and training in counselling during their undergraduate education as their pedagogical role includes the counselling dimension. Particularly, they provide counselling support to students with difficulties and behavioural problems, to students' parents and to the educational community. They also help improve relations between students with difficulties and their peers in order to create a favourable climate in the school environment.

## **8. THE GREEK TEACHERS' BELIEFS ABOUT THEIR COUNSELLING ROLE**

A large percentage of teachers believe that in addition to being good teachers, they also need to be good counsellors, animators, with good interpersonal relationships, thus acquiring gaining the trust of students and enhancing the educational process and, most importantly, allowing students to gain self-confidence and a positive perception of their personal worth.

Teachers through research seem to want the implementation of counselling in primary schools by themselves, provided that they have been properly trained in pedagogy and counselling. Teachers today tend towards a positive attitude towards their counselling role in schools. Although teachers acknowledge that counselling is an integral part of the pedagogical process and that the school has a new role to play, a 'human-educational' role, with a focus on the pupil and the aim of mitigating problems, some research in Greece has shown that teachers tend to have a neutral attitude towards providing support to pupils to help them cope with their interpersonal problems.

In addition, it is considered necessary to provide help and support to teachers for the development of their mental health by psychologists or school counsellors, in order for them to carry out their counselling work successfully.

According to the research of Papakonstantinou (2011) primary school teachers have a general perception of the institution of counselling, which for them focuses on the enhancement of pupils' self-esteem, the cooperation between teachers and pupils on the pupil's problem while at the same time fostering respect for the diversity of the individual/student and acceptance of the individual/student as a person. Most of the teachers' perceptions are in line with the counsellors' perceptions of their work, where 'listening', 'supporting' and 'helping' are key elements of the work of counselling.

it seems therefore that they have a positive attitude towards the institution of consultancy and especially women teachers seem more sensitive to offer help their students to explore their feelings in relation to male teachers. they also appear to be more sensitive than subject teachers and this is because teachers receive more psycho-educational training in their undergraduate studies in the departments of education than subject teachers.

Finally, a large number of teachers would like to receive additional studies, further education or training on counselling issues, in order to be equipped with knowledge and strategies to successfully deal with difficulties and problems in the school environment. until today most teachers, who are aware of counselling issues and try to integrate it into their educational work, are mainly informed by their own personal interest and less by studies or seminars, which in our country are few and far between.

## 9. CONCLUSION

Teachers in primary education experience the daily challenges of problems of their young pupils trying to 'balance' between personal 'wants' and social 'needs' emanating either from the family, or from school. The field of counselling has only marginally touched primary education through the academic training of some teachers, personal interest, and the willingness of a large number of teachers to support their students, although it is not state institutionalised for this level of education.

However, counselling skills are important for creating good interpersonal skills in the school environment and can enhance the creation of a favourable climate for learning and more generally for effectiveness of the school's work. Counselling, therefore, in addition to enhances learning, it plays an important role in both social and individual development of pupils and the effectiveness of the school. and it is considered important to have this institution in schools in order to achieve the best possible psychosocial development of pupils and student population.

In conclusion, what I expect in the future is that training in counselling should be compulsory in Greek universities, free seminars should be provided annually for teachers, as knowledge should be enriched. And, at the end, there should be continuous and effective cooperation and evaluation of teachers with professional psychologists and school counsellors.

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## 11. Learning bodies in the Greek public sector

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### ABSTRACT

In Greece, several institutions and bodies are responsible for the learning, training, and professional development of public sector employees. Their role is to enhance the skills, knowledge, and effectiveness of those working within the public administration and to ensure that the public sector operates efficiently and serves the public's needs.

**KEYWORDS:** public sector, Lifelong training, public administration.

### 1. LIFELONG EDUCATION/LEARNING

It is important to clarify that learning and education are fundamentally different concepts” (Jarvis, 2003:25).

Education is therefore the process of developing, modifying and strengthening required behaviors related to work About 45 years ago and before the Unesco Faure committee proposed the term lifelong education, Philip Hall Cooms (Pagakis., 2002:20) had already formulated his typology, based on which he classified educational activities into three types:

- i. The formal (includes all hierarchically structured and temporally graded educational institutions
- ii. Non-formal education (includes any organized educational activity outside the formal education system)
- iii And the informal (includes the continuous process in which the citizen acquires knowledge, skills and shapes attitudes and perceptions through everyday experiences.

Gradually the term lifelong education of the Faure commission was replaced by the term lifelong learning not for reasons of fuller conceptual coverage but because this shift more clearly indicated the increasingly shrinking intervention of the welfare state in the field of education and the shift towards neoliberal options that they emphasize opportunities for learning. The term began to be used extensively since the time when the OECD (OECD, 1996) published its report entitled “Lifelong Learning for All” and the European Commission adopted, at the initiative of the Irish Presidency, a Lifelong Learning “strategy” in 1996.

In the above approach of lifelong education, the term of continuing professional training is added. However, as he mentions, the essence of lifelong education as such must be on the one hand a longitudinal concept (lifelong learning) and at the same time a transversal one (lifewide learning). That is, more specifically, it is not only important to learn throughout life, but also to learn holistically for all dimensions of our life. With the main characteristics of this learning the respect and satisfaction of the educational needs of the adults of (Prokou, 2009:68)

The deepest meaning of education, regardless of the age at which it takes place, is that it aims “to develop new identities, to explore new ways of being, beyond the existing ones. Education is not only a formative but a transformative process”. (Papastamatis, 2010:21) In our time, learning with the aim of development has become a long-term life project, moreover, the folk wisdom “as long as I live I learn” fully corresponds to this. The view of how individuals change over time. They acquire new knowledge - skills and perceive imperatively the necessity of cooperation within the work context and more specifically the public administration. (Ver-gidis-Kokkos, 2010) According to Creen (2003) one of the effects of the economic dimension of globalization is that individuals realized the need to upgrade their formal qualifications to improve their employability.

Maragopoulos in his report entitled “Methods of selection and training of the administration personnel” pointed out as early as 1950 that the success of any sound program of administrative reform depends to a great extent on the existence of a correct system and training of public servants. (...) This systematic retraining is now necessary because the tasks of the administration are expanding and becoming more complex and the public service must constantly and courageously adapt its views and methods to the new needs of the new times” (Pagakis, 1998)

The report of the committee on the human factor of 1991 points out the same. Systematic education is - further education and training of public officials throughout their professional career can prove to be a decisive factor in improving the functioning of public services”

Lifelong education is a necessary condition for the members of an organization to understand the vision and mission of their organization but also to gain a better knowledge of the organization and themselves. (Kokkos A., 2005:39-41) After all, this is mainly which can change the organizational culture and behavior of members to meet modern demands. In practice, organizations provide their members with two different forms of training:

- a) further education which takes place more often in the form of studies leading to official and internationally recognized cycles;
- b) short courses designed to provide knowledge or understanding of theories of principles and practices.

Law 1811/1951 provided for and included in its provisions the institution of training, Georges Langrod later pointed out in his report. From 1963, the first steps began to be taken, timidly, with the sending of officials to the countries of Western Europe.

In 1968, with A.N.340/1968, the Center for Post-Training of Administrative Bodies (KMODD) was established and in 1975, with L.232/1975, the School of Public Servant Training (SEDY) was established.

With this last law, it can be said that training begins to be systematized. In addition to the establishment of SEDY, Law 232/1975 granted the freedom to all NPDD ministries and organizations supervised by the state to establish classical units or to reorganize the existing education units established by Law 340/1968. It can therefore be said that there was a single organization SEDY that covered the training needs at the inter-ministerial level and about 18 organizations

that covered the training needs at the Ministerial level. In fact, the institution of continuous education is required to make her worry and seek continuous improvements.

In this context, the concern and the effort to improve appear with the entry into force of Law 1388/83 as amended later and still in force.

More specifically, the National Center for Public Administration, a legal entity under public law, was established with its two service units, the ESDD (School of Public Administration) and the IDE (Institute of Continuing Education).

With the establishment of the EKDD and its affiliated service units ESDD and IDE, the institution of further education - training is differentiated and divided into two general directions.

The first concerns the training of civil servants who will form the public servant elite according to the standards of the French Ecole Nationale DAdministration, will have rapid grade development and will be destined to assume positions of administrative leadership.

The second concerns the further education and training of civil servants and is assigned to the IDE (and later to the INEP) with the aim of contributing to the creation of a highly skilled civil servant body through continuous training and specialization of human resources in order to strengthen the ability of the public administration to respond to changes, as well as internal and external challenges and adaptation needs (Vakola, Nikolaou, 2012). The evolution of the IDE, that is, the INEP, has as its mission the conduct of the introductory training of new entrants to the public sector as well as the training of those already serving throughout their service careers through specially designed actions. INEP prepares dozens of programs annually through its specialized sectors (Public Management Sector, Spatial Economic and Environmental Planning Sector, Informatics Sector, Foreign Languages Sector and Introductory Education Sector)

The training of public servants aims at providing the necessary know-how for the more effective and efficient performance of their duties. In more detail and more specifically, there are 7 basic categories of education - training of civil servants which are the following?

1) Pre-introduction:

It is provided by the National School of Public Administration and is addressed mainly to private individuals but also to people who have acquired the civil servant status and wish to pursue a career in the public sector (n. 14 of n. 1388/83 and article 12 of n. 2527/97)

2) Introduction:

It is mandatory and takes place one of the first eight months from the appointment of all employees and public services of the NPDD and OTAs except for HR category employees. The responsibility for the execution of these programs belongs exclusively to the INEP of the EKDD and is not related to any other introductory training carried out in the relevant service (Article 33 of Law 1943/91, Article 13 of Law 2527/97 Article 19 of Law 2738/ 99 and article 47 of Law 2683/99)

3) Training

It is carried out throughout the service of the employees under the responsibility of the training units of the ministries or INEP (Article 34 of Law 1943/91 and Article 47 of Law 2683/99)

4) Expertise

In order to train the service needs, there is monitoring of employee specialization programs in the subjects of the service. The specialization programs are prepared and organized by the

training unit of the relevant Ministry or the independent public service or NPDD or by INEP (article 35 of Law 1943/91

5) Pre-introduction: Regarding employees of the PE and TE category of the NPDD and OTA Regional Ministries. The aim of the promotional training programs is to develop knowledge of administrative behavior and skills responding to the requirements of the duties of a director. For this reason, Grade 1 employees who have worked as department heads for at least three years or candidates for directorships after passing a special entrance competition participate in these programs. The responsibility for the preparation and execution of the programs belongs to INEP and EKDD.

#### 6) Retraining

It concerns employees who have completed at least three 3 years of service and aims to expand their scientific or technical knowledge or to specialize them in modern management techniques and technology. It takes place in national or foreign HEIs, the National Administration Center or other suitable private or public bodies. For their participation in continuing education programs with a duration of less than a year, employees must not have exceeded 55 years of age (Article 37 of Law 1943/91 and Article 47 of Law 2683/99)

#### 7) Postgraduate education

It concerns employees with at least three years of service in the PE and TE category up to the age of 50. The training takes place in national or foreign HEIs with the aim of obtaining a master's degree related to the objects of the ministry or N.P.D.D to which the employee organically belongs (Article 38 of Law 1943/91 and Article 47 of Law .2683/99

The rapid changes taking place in our time create the imperative need for continuous training of public servants so that the services can meet the current requirements of effectiveness, efficiency and optimal management of financial resources. In countries with special geographical characteristics such as Greece, there is an objective difficulty in implementing continuous and large-scale training programs for civil servants. It would be extremely useful to make use of the New Information and Communication Technologies as it is not required for the trainees to move from their place of residence for the needs of the educational program

In the course of the development of administrative science, the role of education emerges more and more important. (Vergidis - Kokkos, 2010) The subject of human resources is repeatedly placed in the focus of the attention of the reformers of the administration and emerges not only as a cutting edge issue but also as the most frequently recurring object of analysis and reflection in the reports of experts on the Greek public administration.

In the context of this rapid change and the transformation and removal of public organizations from mechanistic operating logics, it is a fact that human resources are upgraded and emerge as a catalytic factor. In this evolution, knowledge has a pivotal role. Knowledge is currently evaluated as a key productive factor, given that it constitutes the intellectual capital, which is one of the most basic assets of modern organizations. (Fanariotis, 1999:39-43)

The employees who make up these organizations have as their main objective the increase of efficiency which is possible only through administrative development, that is, from the cultivation of the administrative abilities of the individual until their full utilization. Management development can be achieved almost exclusively through training.



The purpose of training is to promote change in freeing employees from bureaucratic perception and cultivating the ability of employees to learn to learn. Michalopoulos, 1999:16-20)

In order for learning to take place, the coexistence of at least the following conditions is required.

I. the person must want to learn. In order for the person to want to learn, he must be motivated.

The motivation in this case is the correlation and connection of the taught subjects with the work performed or at least with that part of the work that the person considers to be the most important. This association and work-learning connection requires the voluntary participation of the individual who is an essential factor in the formation of learning.

II. Learning must take place within a certain plot or relevance related to thinking. This is the psychological relevance. But there is also physics which is the immediate working environment. This means that learning should not only be connected but also transferred from the places of cultivation (educational institutions) but also implemented in practice in the work environment.

iii. The learning and knowledge gained must last. For this to happen they must be used and their usability tested because otherwise they are quickly forgotten. Η παραπάνω προϋποθέσεις και ιδιαίτερα η τελευταία συνδέονται άμεσα με την έννοια του όρους αξιοποίηση

## 2. CHARACTERISTICS THAT HINDER EDUCATION

Could the following be characterized as characteristics that hinder education?

- Organizational defensive routines that prevent progress and make employees entrench themselves behind them without wanting to change them.
- People tend to miscommunicate and pretend that everything is normal.
- Knowledge is individual and not transferred as a whole (fragmented learning).
- Training in conflict over interests and roles that prevent individuals from seeing the changes required and causes them to engage in personal conflict.
- Not rewarding the training efforts made by employees

Karakatsoulis typically mentions that the training process is basically voluntary and there is rather a reduced willingness to train. This is confirmed by a related survey that states that 48% of employees accept that additional training in the public sector is not valued, 38% that it is only marginally valued. (Karkatsoulis, 1997:28-40). This impression is reinforced by the fact of the disconnection of training from development, either in terms of grades or salaries. The influx of knowledge as mentioned by Makridimitris A. & Michalopoulos N., 2000:594-596) is not a criterion for additional remuneration.

### 4.3. Knowledge management and learning policies in the public sector

The public sector undertakes them having deeply understood that at the “heart” of every educational process is learning. Rogers, 1999:66), attempts in recent years to articulate learning and knowledge management policies in the context of traditional human resource management and administration programs. The public policies in which the application of knowledge management systems is attempted are mainly the policies for the provision of services to citizens. The success of these policies depends to a large extent on the satisfaction of the different groups which, in turn, depends on the degree of knowledge of the needs and expectations of these groups by the state and public services.

In order for a public organization to be able to clearly know the needs of citizens, it should attempt a series of internal reforms, such as the following:

1. Improving the quality of the human resources serving, through the minimization of hierarchical pyramids, the limitation of bureaucratic procedures and their simplification, in which case the services provided will be more easily accessible to those who deal with the public organization.
2. Adoption of organizational changes and innovations that improve the cognitive capacity of the public organization, such as the creation of databases, networks, organizational units of specialized scientists and think tanks that transfer new knowledge to the organization.
3. Establish consultation processes with the social partners, which may range from information exchange and access to public documents to participation in the decision-making process.
4. Strengthening partnerships with the private sector, universities and research institutions.
5. Orientation of public services to the production of results which will be the guiding guide for the evaluation and redesign of policies. This reform is quite painful and difficult, as it presupposes a change in the justifying reason for the existence of public organizations, the transition from the observance of legitimacy –as their sole reason for existence– to efficiency

In today's conditions of social and economic globalization, information, information and education are considered the three main components of the survival of individuals and, by extension, services. Services require workers to have a wide range of skills. In order for this to become a reality, the service must design a training program that will target the type of training it needs, the selection of the group to be trained, the ways or methods of the training process, the ways to evaluate the efficiency of the training program and finally the ways to improve the educational process.

In a program to redesign the training system, the requirements of the expected-desired work must be redefined, through appropriate training the employees should be led to the desired goal, and all employees, regardless of position and duties, should be included in the redesign program.

The introduction of new technologies is a central contribution to improving the image of public administration, moving away from the poorly understood bureaucracy (which had been associated with inefficiency, complexity, rigidity, adherence to formulas, delays and suffering of citizens from public services) in the new form of administration, which establishes new methods of organization and control of work and reverses many of the dominant negative features of the bureaucratic model.

The explosive spread of the use of new technologies (PC, internet) led to the transition from the knowledge society to the information society. The practically unlimited possibilities of new technologies have radically changed both working conditions and the structure and operation of public services. The internet enabled access to remote areas and changed the established channels of providing public administration products/services. The need for continuous training, retraining and lifelong education of civil servants has now become imperative, especially in the matter of adapting to new technologies, which now function as the backbone of the entire edifice of the new public administration.

#### ***a) Detection of educational needs***

The continuous training of civil servants offered by INEP should be oriented towards the following: vocational training, although initially addressed to individuals, its purpose and goal and final aim are organizational groups. The orientation must be to upgrade the operation of the services through the improvement of the performance of the employees and this must be realized that it is only achieved through the connection of knowledge - daily action.

According to Passas-Chekos (Passas,-Chekos, 2004:84 INE GSEE – ADEDY) the training programs must therefore start from the service reality and return to it. Programs need to be developed

along two main dimensions. In principle, they need to focus on supporting organizational-functional changes and upgrades within the services as well as introducing innovations. It is precisely in these cases that a targeted and rapid transition from current structures to new, upgraded attitudes, knowledge and skills is needed. How can this be achieved:

Using modern methods of detecting educational needs. Knowledge and skills deficits should be identified based on service malfunctions and their treatment targeted.

More specifically, the necessity of a comprehensive and collective regulation of training in the public sector is supported, focusing attention on the benefits of organizations and employees from the joint planning of staff training in relation to the specific needs of the organization. Such an acceptance leads in a logical sequence to the formulation of an integrated process of detection of educational / training needs in the public sector.

The initial emphasis on the private sector to achieve teacher detection –because that is where the idea of efficiency, which in turn was linked to that of profit, was usually focused– was soon supplemented by a transfer of relevant models for application to the public sector as well. Thus, the number of needs detection studies in the public sector due to the new theories on the management of public bodies and organizations on the one hand and the efforts of the states and the European Union to modernize on the other hand, is constantly increasing.

The needs detection process is defined as a systematic set of procedures undertaken with the purpose of establishing priorities and making decisions for an organization improvement program, which may involve organizational improvements, organizational restructuring, reallocation of resources, or simply improving the efficiency of the organization and problem solving

Although there is no commonly accepted model for detecting education and training needs for executives of companies and organizations, whether they belong to the public or the private sector, there are two theoretical approaches. The first is based on the detection of qualification adequacy and the identification of existing gaps, and the other focuses on the identification of future training needs and the detection of abilities with a view to the future.

In any case, the detection of educational needs is the one that will lead to the successful creation of educational programs and for it to be really successful it is important to include the following elements:

- The active participation of the organization's staff in the needs detection process
  - The risk of conflict between personal, professional (career, training) and more general needs (government policy for management, organization environment)
  - The need to detect needs to be followed by an analysis of these needs and measures to address them such as training, retraining, special education, logistical infrastructure
- Στη βάση αυτής της ταξινόμησης, οι εκπαιδευτικές ανάγκες έχουν ενταχθεί σε τουλάχιστον τρεις κατηγορίες, (Rogers A., (1999: 66-70)
1. Personal: these have to do with the desires, aspirations, personal ambitions and interests of the employees.
  2. Professional: these have to do with the development of professional qualifications so that the employee can respond to all aspects of his function and finally
  3. Managerial - careers that have to do with the development of those skills that are required to be possessed by those who assume additional responsibilities and responsibilities senior executives (head managers etc.)

That is, everyone interested in a future placement in a position of specific responsibilities or promotion to a position of given responsibilities should promptly enter a long-term training program which will gradually provide him with the necessary knowledge, skills and attitudes, preparing him for his future duties. In conclusion, Passas-Chekos point out (Passas,-Chekos, 2004:89 INE GSEE - ADEDY) "Such a maturation will lead to a professional education system that will be oriented not by supply, as is the case today, but by demand. Ministries, legal entities, public action agencies in general will cease to be simple recipients of the programs offered by the education agencies and will change into co-formators of them by articulating specific requests that will arise directly from their organizational-functional needs. By combining together, providers and recipients of education the detection of needs, educational interventions, the utilization of practical experience, consulting support and the final evaluation based on the results of the action of the services, they will develop an effective knowledge management framework in the Greek public administration."

Both INEP and the other training institutions will therefore need to gradually change their philosophy, strategy and methodologies to adapt to the new functions of knowledge in organizations and the new learning environment that are now taking shape. What should be paid particular attention to is avoiding the pitfalls of IT in education.

The widespread use of digital media does not mean that vocational education is becoming the exclusive domain of IT professionals. Knowledge remains human knowledge and arises from experiences and sources linked to the organization's goals and work reality. The same applies more generally to information, which remains an important organizational and operational parameter and should not be confused with IT, which refers to its processing and handling techniques. Thus, what Simon (Simon, 1983) had talked about will be achieved management that it is the art that allows the achievement of goals through a proper coordination and cooperation between all. (the art of getting things done).

#### ***b) EKDDA – INEP***

The Training Institute (IN.EP.) of the National Center for Public Administration and Self-Government (E.K.D.A.A.) having as its main mission the development of the human resources of the public sector and the support of the implementation of public policies, plans and implements an integrated training program for public officials, with the aim of improving efficiency and quality in Public Administration and Local Government and upgrading the services provided to citizens

The following are eligible to participate:

- Employees employed in the State and in N.P.D.D., permanent, private law open-ended, with private law fixed-term contracts
- Grade 1 and 2 local government employees and D.E.K.O.
- Employees who are employed in N.P.I.D whose management determines
- Ministry or other State body, with private fixed-term contracts
- Special Counselors of Appeals who are employed under a private law contract for a certain period of time
- Transferred employees (e.g. General Secretaries of public bodies) Project contracts and stage contracts are excluded.

The training programs of INEP are implemented within the framework of actions co-financed by the European Union (ESPA 2007-2013) and specifically by the E.P. "Administrative Reform 2007-13"

According to the Planning of the Training Institute (INEP) (circular 11380/ 24-12- 2014 (January – July 2015)) the planning, implementation and monitoring of the education/training provided by INEP is based on:

1. In the detection of educational needs
2. In the assessment
3. In the Cooperation Protocols of EKDDA with bodies of the central administration and local self-government, which aim to develop coherent and integrated interventions, from the planning stage to the stage of the evaluation of the actions, at the body level.

The educational actions of INEP are part of the following thematic circles connected to Public Policy areas:

- Efficiency and Transparency in Public Administration
- Administrative Reform and Decentralization
- Electronic Government and Applied Technologies
- Sustainable development
- Economy - Fiscal Policy
- Social politics :
- Section A' Health and Social Security and
- Section B Social Solidarity and Equal Opportunities
- Introductory Education

It would be appropriate for a more complete picture of INEP to refer to the organization of the training which includes: electronic application for participation, educational material provided in digital format and the website of EKDDA on the basis of which the services are informed about the educational actions.

The instructors, who do not necessarily belong to the permanent staff, are evaluated and included in the Register of Main Teaching Staff coming from either the public or the private sector and are used according to the programs. Finally, the training programs are evaluated electronically by the trainers as well as the trainees, which are studied and presented in reports posted on the EKDDA website.

The attendance certificates included in the official file can be obtained electronically by those interested (Article 34, Law 4250/2014)

In the 2nd semester of 2015, 617 training programs have been included which have been distributed in Athens, Thessaloniki and the Region

### ***c) Ways to improve the education system of civil servants***

From the above analysis it has become clear that to a large extent the achievement of the objectives of training, i.e. the development of the human factor and the administrative reform through a “learning organization”, depends on its inclusion in a system of strategic human resource management. We consider it appropriate here to make, in closing, some relevant observations concerning the Greek public administration.

Until now traditionally the human resource management responsibility unit was essentially treated by the leadership as a personnel office which did a repetitive job of a procedural nature and was probably not highly regarded and thus did not enjoy high prestige. The representatives of this unit did not participate in the process of strategic planning of education. This practice must be stopped and



the personnel management unit must be immediately upgraded and its executives trained in strategic planning subjects so that they can participate in the preparation of the organization's strategic plan. First, however, a systematic study of the following factors must be done:

- Labor structures
- Educational programs provided
- Opportunity provided by the existing Institutional framework
- HR capacity for self-assessment

After the above is clearly captured, the next step of the unit should be:

- The exact description of the jobs
- Learning requirements
- training program to be followed
- The implementation of the respective programs must be accompanied by control and re-information in order to determine the future strategic goals (Vergidis, Kokkos, 2010).
- Incentives to strengthen knowledge workers to integrate their knowledge into the organization's model.
- The establishment and training of a critical group of trainers and the activation of the inter-ministerial branch in this direction
- Finally, an important parameter is the diffusion of knowledge even through the institution of transfers

The above proposals can be implemented with the sole condition of changing the culture of the Greek public administration.

A strong political will is needed to combat the party state and to strengthen transparency and meritocracy in the staffing and administration of the directorates of public organizations.

These will be the springboard for a culture change that will be achieved when employees imbued with the spirit of the learning organization will not only operate with the letter imposed by the law but with a view to serving all interested parties.

### **3. CONCLUSIONS**

In the landscape of the 21st century, private and public companies must compete in a complex and diverse environment and manage to adapt to new data. To achieve this they need to understand the changes that are taking place and the changes to come and connect them to the learning capacity of the organization. That is, they must be transformed into a learning organization that obeys the knowledge management model (creation, acquisition and transmission of knowledge). For development to occur, organizations must rely on the knowledge, experience and skills of human capital. This in turn will create new knowledge and innovation which are drivers of personal, corporate and national wealth.

So knowledge has become a necessity and not an option. That is why, in agreement with Argyris (Argyris, & Schon, 1978), we must "unfreeze" entrenched ways of thinking and move quickly towards new organizational models and an expanded framework of administrative innovation and modernization.

Far-reaching changes in the culture of public administration are required that will allow services to understand the new operating environment and the importance of training in relation to it. And of

course the success of vocational education consists of the persuasion it has to motivate not individuals to learn but the whole organization. The greatest worker will be the knowledge worker. (Thite, 2004:30) The evaluation will be based on the employee's ability to learn and not on the traditional structures of position hierarchy and official time that will gradually disappear.

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## 12. Proposals for distance education using digital tools in a learning environment with special educational needs

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### ABSTRACT

The educational needs in a specific learning environment are several, and the use of modern digital tools is essential.

This paper is about teaching proposals using digital tools in a specific learning environment, with integrated design plans that include a customized timeline with objectives, digital tools, theoretical background, and activities in each unit of the computer science course.

The project includes a scenario concerning the distance teaching of the Networks lesson of the 4th grade of the Special High School during the school year 2020-2021, when the school did not hold face-to-face lessons due to a pandemic epidemic (covid 19), for a period of two weeks.

The main purpose is to learn concepts that are part of the theoretical background of the subnet working module and the necessary methodology in the context of solving exercises concerning the creation and processing of subnetworks.

**KEYWORDS:** Special Education, Digital Tools, Synchronous Learning, Asynchronous learning, Teaching Suggestion, scenario, Webex, E class.

### 1. EXPECTED LEARNING RESULTS

The main learning objectives are for students to be able to understand the operation of the subnet working processes and, by extension, the corresponding actions concerning the creation and handling of subnets.

In particular:

1. Students should be able to describe the structure of an IP address and the IPv4 addressing system.
2. students should be able to identify when an IP address is correct, classify it in the class to which it belongs, identify the network address to which it belongs and the broadcast address define the concept of network masks, classless addresses (CIDR) and determine given the mask which other IPs belong to the same network as a given or specified IP.
3. the students will be able to perform subnetting of a network by calculating the new mask for the number of requested subnets.

### 2. PREREQUISITE KNOWLEDGE OF STUDENTS FOR THE IMPLEMENTATION OF THE SCENARIO

In order for students to actively participate in the lesson and to be able to understand and carry out the corresponding activities, it is necessary for them to know the concept of subnet working on a theoretical and practical level.

In particular, class and ataxic routing of networks are prerequisites, which include the class identification of each network and the allocation of the available bits in the network segment or computers according to the operational requirements of each network.

Implementation time (for 1-2 teaching hours in the digital classroom)

The distance learning courses related to the above-mentioned teaching module include two 30-minute online courses in Webex and one half-hour for each activity in the e class environment of the respective courses.

### **3. DESCRIPTION OF THE SCENARIO**

The scenario concerns the distance teaching of the course of the Networks lesson of the 4th grade of the Special High School during the school year 2020-2021 when the school did not hold face-to-face classes due to a pandemic outbreak (covid 19), for a period of two weeks.

In particular, in the context of distance education, two courses were conducted in the Webex environment (Synchronous Environment), And the posting of corresponding learning materials and activities in the E-class environment (Asynchronous Education Environment).

In the synchronous learning environment, power point files and questionnaires were used, which concerned the theoretical background and the corresponding methodology of the model exercises within the subnet working module of the Networks course taught in the 4th grade of ENEEYL, based on the curriculum of ENEEYL posted for the school year 2020-2021.

According to the curriculum of the course the subnet working is a key part of the curriculum so in the context of the revision of the second quarter digital learning material was adapted in both environments (synchronous and asynchronous), and according to the special educational needs of the department.

The Class comprised four sections and the section in which distance learning was implemented consisted of students with mild learning needs such as dyslexia and distraction.

The corresponding feedback of the students was carried out in two parts, the first one related to the monitoring and their participation in the synchronous learning environment (Webex) and the second one to the solution of the activities and their respective results in the asynchronous learning environment of E-class, in order to enable the evaluation of the students based on the online courses and the aforementioned feedback.

It is noteworthy that before the start of the online courses, parents/guardians were sent digital material (power point file) with instructions that activate their role in the process of distance learning, in order to make the environment of monitoring and participation of students in both the synchronous and asynchronous learning environment usable.

### **4. ACTIVITIES THAT LEAD TO THE ACTIVE INVOLVEMENT OF STUDENTS**

The activities carried out in the two environments (synchronous and asynchronous) were designed based on the specific educational needs of the students.

In particular, students watched and participated in the WebEx digital environment, and made use of teaching materials and activities in the e-class.

Based on the configured distance education program, students, in addition to attending classes in the modern learning environment, actively participated by completing individual questionnaires in order to have two-way communication, and students with detachment actively participated by

using the polling function and using the Breakout Sessions function in order to implement a collaborative group pedagogical method supported by the WebEx environment.

As far as the asynchronous environment is concerned, students had to watch the corresponding digital material used in each lesson that had been carried out in WebEx, activities with the completion of correct error questions and gap-filling exercises, within the framework of the question and answer method, as well as watching audiovisual material suitable for the educational needs of students (dyslexia, distraction), all the aforementioned digital learning material was posted in the e class environment.

The activities described above were designed based on pedagogical methods used based on specific learning educational needs.

Key pedagogical methods used in the design of distance learning are Group collaborative pedagogy, Discussion or dialogue, Questioning, Brainstorming, Demonstration, Work groups, Case study, Simulation.

The digital tools used in both learning environments (synchronous and asynchronous) are presented below.

Synchronous Learning Environment: Webex

- Videoconferencing - sharing (power point sharing and viewing)
- Chat
- Breakout sessions (groups/workshops)

Asynchronous Learning Environment: E-class

- Documents (material presented in the course on Webex - power point)
- Activities (S/L questions, multiple choice questions, fill-in-the-blank questions)
- Messages
- Editor (uploading audiovisual material)

## **5. BASIC SCENARIO FLOW**

### **5.1. Involvement of useful roles**

Preparation of online courses before their implementation by sending a file (power point) to parents/guardians with the necessary targeting (based on special educational needs), on the school readiness of students and the formation of a classroom environment attendance of their lessons.

### **5.2. Link to prior knowledge**

- Reference to knowledge elements of previous courses (IP addresses and network classes) and link them to the first online course (knowledge recall).
- Targeting of the course, theory and solving the corresponding model activities (questions)
- Assignment of activities (to be delivered before the next lesson)

### **5.3. Individual processing**

- Posting of the learning material used in the first lesson.
- Posting of the activities (S/L, multiple choice questions, fill-in-the-blank questions)
- Posting of help messages with instructions on how to use the learning material posted and how to apply the corresponding activities.



#### **5.4. Feedback - Evaluation of results**

- According to the feedback of the implementation of the activities, the appropriate design (new lesson plan) of the second online course is implemented based on the possible shortcomings that emerged.
- Creation of appropriate learning material (power point) and exercises to be solved during the breaks.

#### **5.5. Final recommendation**

- Review the theory of the current unit (substrate) and comment on the solutions to the previous lesson's activities. Methodology Solving exercises related to the creation and processing of the subnets by applying a modeling exercise.
- Assignment of new activities (exercises) based on the methodology of solving the standard ones.

#### **5.6. Evaluation - knowledge acquisition**

- Posting of the learning material used in the second lesson.
- Posting of work (exercise to be solved by students)
- Posting of help messages with instructions for completing the assignment and a deadline for submission on the platform.
- Evaluation of the assignments and feedback for the implementation of the next lesson.

### **6. IMPLEMENTATION FRAMEWORK**

The implementation of this scenario concerns two online lessons of forty-five minutes in the modern learning environment of WebEx and the corresponding tasks - editing of the learning material of the teaching unit in the asynchronous environment of the online classroom.

In the scenario the directly involved teacher and students interact in the above-mentioned environments (synchronous - asynchronous) and based on the feedback the future lesson plan is also formed.

The lesson material was based on the 4th grade ENEEYL curriculum, but modified according to the educational needs of the students (dyslexia and attention deficit disorder).

Parents/guardians had a supportive role in the learning environment in order to create an appropriate monitoring environment and support the students' school readiness.

Future use of the scenario may be feasible to implement more online courses.

#### **6.1. Tools/applications**

The tools and corresponding media used in the learning environments (synchronous - asynchronous) are listed below.

WEBEX (Synchronous Environment)

- share (screen sharing and power point projection)
- chat (communication via messages between teacher and students.
- breaks (groups/workshops for discussions and questionnaires)

ECLASS (Asynchronous Environment)

Documents

Files used in the course on WebEx (power point) Information file with instructions for parents (power point)

Exercises

Activities (P/A, multiple choice, multiple choice, fill in the blank)

Assignments


- Posting of work by the teacher
- Submission of completed work by students).
- Deadline for submission of work
- Grading of work

Messages

- Posting a notice to students regarding the date and corresponding class time
- Posting a notice to parents regarding possible information about the course schedule

## 7. TIMELINE

Timeline	activities	Description	Educational applications
<b>Phase 1.</b> Preparation - activation of roles Asynchronous e-class environment.	I. information about the start of the course.	Posting a message to students and parents/guardians in e-class for the start of the distance learning.	
I. Information messages 5' minutes	II. Information on the definition of objectives, support	Posting of a file with target setting and corresponding instructions to parents/guardians regarding the school year.	I. Message (e class) II. Documents (e class)
II. Document information document for parents/guardians  5' minutes	school readiness and formation environment for monitoring	school readiness and setting up the appropriate monitoring environment.	

Timeline	activities	Description	Educational applications
<b>Phase 2.</b> Connection to Previous knowledge Modern webex environment   15' minutes	Introduction: Repeat in previous	Recalling prior knowledge related to determining the IP network address of the IP address class IP address, and finding a corresponding mask is performed, elements that are part of the class routing curriculum.	Share screen and view previous power point files of previous section ↗ Share Share(webex)
	Repetition from previous modules.  Taxonomic routing and IP mapping addresses into classes, with identification of the corresponding masks.	This recall is performed to enable understanding of the class routing elements that are part of the new subnetting module.	Messages Include questions to be answered by group.  Chat (webex).
	In order to successfully achieve the goal of recalling prior knowledge, students are divided into groups and complete questionnaires on the elements of class routing (prior knowledge).	The lesson ends with the posting of some questions in the chat and their completion by the groups that will emerge after the necessary separation, in order to provide the necessary feedback to the teacher and consequently the planning of the next online lesson.	Students are divided into groups in order to discuss and answer from questions that questions asked during the class discussion. Distinguished sessions (webex)

## 8. CONCLUSIÓN

In distance education, those directly involved (students, teachers, parents) responded to a satisfactory degree and cooperation benefited the progress of the students.

In particular, the parents, following the teacher's instructions, made sure to maintain the students' routine, ensuring that there were no objects, sounds or other situations that would lead to distraction in the area where the computer was located.

The students used the learning material from both the synchronous and asynchronous environment and at the same time, through the breakout sessions, the creative teamwork spirit was enhanced.

The use of digital tools in distance education was carried out without any particular problems and proved that it works constructively even in a special learning environment, as long as there is proper planning by the teacher adapted to the educational needs of the students.

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## 13. Inclusive Education and Physical Education in Greek Primary Education

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### ABSTRACT

The purpose of Physical Education in compulsory education is to contribute as a priority to the physical development of students and at the same time to help in their mental and spiritual cultivation as well as their harmonious integration into society. Priority is given to the development of students' motor skills and through them the cultivation of their physical abilities and the strengthening of their health.

The teacher is invited to mobilize his theoretical knowledge, experience, imagination and creativity so that both the teaching approach and the model he will use bring about the desired result, after first of all ensuring the safe participation of the trainees in the program and then the achievement of the individual objectives. The teacher must remember that each person is a separate personality and must be treated accordingly.

**KEYWORDS:** Physical Education, interculturality, inclusion, students' motor skills, physical abilities, teacher, teaching approach.

### 1. INTRODUCTION

Until the beginning of the 20th century, the attitude of some societies towards people with disabilities, as well as foreigners - foreign students, led to their marginalization and social exclusion. (Zoniou Sideris, 1998: 21-24). The changes that took place throughout the 20th century affected societal perceptions of these individuals and their subsequent education. This negative attitude essentially questioned the social characteristics of these individuals - people with disabilities, and foreigners - foreign students - and abolished their right to live as «political beings» (Soulis, 2002: 79). Thus, until the middle of the 20th century, all students with disabilities attended special schools, where they were educated separately, away from mainstream schools (Karagiannis et. al. 1996: 19). Today, although there is still a perception that people with disabilities, as well as foreign students, are unable to be educated and then contribute to society, an opposite view tends to prevail, which supports the removal of their social exclusion. Thus, people with learning disabilities and immigrant people have both the right and the possibility to live independently and productively with the «natives» in any society. This perception is based on respect for human rights and equality of opportunities (Zoniou-Sideris, 1998: 9; Soulis, 2002: 79-80). The result of all these efforts was, in many countries, the questioning of the segregated education system and the adoption of the new idea of integrating students with special needs into school, which was called integration. Several countries are now adopting the idea of inclusive education in a so-called «school for all». The creation of schools in which co-education is implemented requires changes in the operation and educational policy in general. Also, successful inclusive education depends on teachers' attitudes towards inclusive education (Lindsay, 2007: 13).

Today the multicultural composition of society and the consequent principle of respect for diversity have been transferred to education, which is linked to the social environment in which it takes place. The socio-political changes taking place in modern society worldwide affect the form of education and make it necessary to redefine its purposes. More emphasis needs to be placed on the student since the aim of education is to form tomorrow's citizens well adapted to the demands of society. This means that school learning must negotiate its objects in the perspective of the coexistence of different cultures. This is achieved in the light of a broadening of our interest in the 'other'. Today, the right to people with educational disabilities and foreign students is recognized, without discrimination and on the basis of equal opportunities, and an inclusive education system is ensured, to a uniform, quality and free education, on an equal basis with other «natives», receiving the support required, within the educational system, in order to facilitate their effective education (Ghergut, & Grasu, 2012).

## 2. INTERCULTURALITY

In the international arena, the debate on Intercultural education has actually developed recently. Intercultural education is defined as «a reform process with the ultimate goal of transforming school and society so that prejudices and stereotypes are set aside, tolerance is cultivated and cultural diversity is recognized in school and society» (Damanakis, 1989: 5). The European Union uses the term «intercultural» meaning it as a principle that permeates the entire school program but also as a goal and action to achieve equal opportunities in education (Markou, 1996:18-23). Intercultural education is linked to the abolition of discrimination, equality, mutual understanding, mutual acceptance and solidarity and is addressed to both foreigners and «natives». The tolerance of the different, the acceptance of otherness, the respect of the particularity of the race, ethnicity and culture of the «other» are elements that create new data for the educational system and which must be addressed without stereotypes, prejudices and discrimination. The various models of assimilation, integration, cultural pluralism do not seem to aim at exploiting the cultural and linguistic heterogeneity of multicultural societies for the benefit of the individual and society. Various researchers (Damanakis, 1989:23) by the term «interculturality» mean the process of a dynamic and fruitful interaction between cultural and social groups. The goals of this process, which are based on the equal treatment of cultures, are the development of the various groups with the support of the state, the acceptance and recognition of the right of each group to be different and the provision of individuals with equal opportunities in education and life, so that they have the possibility to express their individual and social identity in the context of their society. The term «interculturality» is found in the literature, as Damanakis (1997: 39) observes, both in the sense of formulating the goals of interculturality as a pedagogical principle or normative dimension, and in the sense of describing a multicultural situation (Gal, Schreur, & Engel-Yeger, 2010). There are mainly three concepts which are most often encountered and refer to the specific thematic area (Gotovos, 1997:23-27). 1. The term «intercultural pedagogy» which refers to «a branch of Educational Sciences whose object is the encounter and interaction of various cultural forms and the effects of this phenomenon on the process and pedagogical products. In other words, it is the scientific discourse on intercultural education and intercultural education» (Gotovos, 1997:23-24). 2. The term «intercultural education» which «refers to a specific type of education –existing or priority– the characteristic feature of which is interculturality. In other words, it refers to goals, methodology for achieving them and products or results» (ibid.: 24). 3. The term «intercultural education» which «refers to two distinct fields. First in the education system and second in the process and the re-

sult of education within the school. In the second sense, the content of the term intercultural education coincides with that of intercultural education» (Gotovos, 1997:24). In the context of an intercultural education that addresses both «locals» and «foreigners» the living cultures of the groups involved should be included (Klassen, & Chiu, 2010). Another element of intercultural education is that it is addressed to institutions, social groups and less to the individual. To the extent that it addresses the individual, it is not limited to members of the minority, but addresses a member of the multicultural society and aims to change the cultural attitudes of individuals so that they respond to the facts and needs of the multicultural society. Thus the «bicultural - bilingual education» Damanakis (1989: 81) has to do with the individual, and especially the member of a minority group.

### 3. CO-EDUCATION

Regarding inclusive education, the English term (inclusion) comes from the Latin verb «includere» and means to include. In the Greek literature, although the term is usually attributed as «co-education», the terms «convergence», «education for all» or «inclusive education» are used with the same meaning (Doikou-Aulidou, 2006: 91). The terms inclusion and inclusive education are often used interchangeably, but they differ as they refer to different approaches to the education of people with special needs. In contrast to previous efforts at integration and inclusion that were primarily concerned with the placement of students in mainstream education, inclusive education focuses on the philosophy and quality of the relationship that develops between blind or disabled students and their peers and teachers (Anderson et al. 2007: 132). The term inclusive education is open to many interpretations in the international literature. According to Sebba and Ainscow (1997: 5), the term describes the process by which the school attempts to respond to the needs of individual students through reforming the curriculum and reorganizing school policy and practice. The concept of inclusive education was based on the view that all children with special needs can benefit from attending their neighborhood school provided that it is properly designed to welcome them and respond to their needs (Ainscow, 1997: 5-6). Integrated school in the Greek education system, the inclusive school, which is the democratic school (Slee, 2004:33), is «the vehicle towards a reform that embraces all aspects of the educational process». The goals of the democratic school refer to the self-realization of individuals, the development of a community and a society of inclusion, and the foundation of the society of inclusion through the cultivation of the principles of recognition, acceptance of equality and social justice (Zoniou-Sideris, 2004: 125). Outlining the Greek education system, it is found that it is a system that obeys the needs of the labor market, with the intention of control, that promotes the tendencies of intense competition and individualism, facilitates school exclusion, inequality and failure (Zoniou-Sideris, 2004:128). Therefore, the character of our educational system combined with the non-existence of a fairer social-educational policy and the existence of a society unwilling to accept diversity make it difficult to apply the philosophy of inclusion in the Greek reality (Zoniou-Sideris, 2004:130). The centralization and legalism of the Greek system combined with the ideology that permeates it reinforces highly competitive directions, promotes centralized directives at the national level and rewards only excellent performance. It is reasonable that such a system will clearly not allocate space not only for disabled children but for any student who deviates from its requirements (Barton, 2004:23). The obstacles of the Greek educational system are analyzed by Vlachou (2004:66): «The ideology of the educational system through which I have worked was based on highly competitive directions, centralized directives that applied at the national level and practices where the student in

order to succeed had to strive for excellence... Within such a system the disabled children simply had no place» (in Zoniou-Sideris, 2004:132-135). In summary, through the inclusive school it is sought on the one hand that the student be freed from prejudices and to accept diversity and on the other hand the participation of all children in the school life and the wider cultural life of the community thus fulfilling its socializing role (Soulis, 2002:35). In order for an inclusive school to exist and function effectively, it requires substantial support from the state both at the financial, institutional and legislative levels, and a framework for taking more general measures aimed at social changes and transformations. It presupposes wider educational changes such as in the syllabuses, in the logistical and building infrastructure, in the way of assessment. It presupposes the direct and substantial participation of parents, but also of collective and social bodies. It presupposes the active participation of the teachers themselves in order to be active with the aim of shaping a learning process that supports all children, actively involves all students and utilizes and enriches the potential of all students, that cultivates cooperation, acceptance, equality and the creation of harmonious relationships between the people involved in the learning process (Soulis, 2002:37-38).

#### **4. PHYSICAL EDUCATION**

The Physical Education course is a suitable environment for promoting children's inclusive education (Meakin, 1990). Block and Obrusnikova (2007) conducted a bibliographic survey based on 38 English-language research articles related to inclusion in the Physical Education course from 1995 to 2005.

The findings of this episcopal work showed that foreigners can be successfully included in student's formal education classes if they are given appropriate support. It is widely accepted that physical activity is important for maintaining health in all people (Cooper, Nemet, & Galassetti, 2004; Department of Health and Human Services, 2010). Regular exercise has a significantly positive effect on individuals (Dodd, Taylor, & Damiano, 2002).

The Physical Education course is an important vehicle for the systematic exercise of foreign children and can contribute to the appearance of the benefits of exercise in these children (Korologou, 2016). Research has shown that the level of self-concept of students increases with their equal participation in the team and contributes to a greater intention to participate in sports activities (Kaprinis & Liakos, 2015).

Properly designed programs that aim to promote equality through Physical Education can help foreign children integrate into the school environment but at the same time sensitize other children to understand, accept and coexist (Kypriotakis, 2001).

The participation of students with an intercultural background in Physical Education classes significantly affects the cognitive, social (Sato & Hodge, 2009) and physical development of these children (Kasser & Lytle, 2005) while promoting their lifelong participation in physical exercise and activity. The literature also argues that the benefits of integration include the improvement of sociability, the development of the foreign student's self-confidence and self-esteem, and smooth integration into the formal classroom and society, elements that can be enhanced by the participation of foreign students in a diverse and innovative Physical Education course (Kaprinis & Liakos, 2015).

In addition, the Physical Education course is considered particularly important in the integration of a child with an intercultural background, because it offers all those opportunities that enable the child to develop motor skills suitable for participation in sports and leisure activities, interpersonal

and social relationships, self-confidence and positive opinion of oneself (Downing, 2002). In Physical Education there are quite large scopes for the co-education of foreign students. It is well known that differences always exist in the participants in Physical Education programs since each child has different abilities. A necessary condition is the positive attitude of the teacher, the other children in the class, but also the child himself in the event of co-education. As mentioned in the episcopal work of Jing and Amy (2012), the positive attitudes of Physical Education teachers towards co-education positively affect foreign students who participate in a typical class (Block & Obrusnikova, 2007).

Co-education in the Physical Education course can be full and have the meaning of attending the Physical Education course together with the rest of the students or partial, that is, participation only in selected activities to which the children can respond successfully. For the success of co-education, the logistical infrastructure, the appropriate equipment and adaptations are essential. The school program should ensure the progress of all students so that the education and physical activity of all children are not lacking. The Physical Education course includes activities that develop skills of orientation, balance, audio-visual coordination, and activities that improve motor coordination. Students must be given learning opportunities in order to gain knowledge and image of their bodies, to improve their perception of space and direction. Finally, it is important to teach rhythm and dance, sports, athletics and swimming. An important part of the program must also be physical fitness with special attention to the intensity, duration and frequency.

Children with cross-cultural backgrounds lack self-confidence and self-motivation. A carefully planned and well-structured Physical Education program can help in this direction as well. Activities should be simplified so that they can be performed with ease and lead to success. If in a Physical Education lesson, which includes competitive games e.g. running games, swimming, etc., if appropriate adjustments and modifications are not made this can cause negative experiences for students (Fitzgerald 2006; Fitzgerald & Kirk, 2009 op. ref. in Petrie, Devcich & Fitzgerald, 2018).

Children should be motivated, encouraged and rewarded for their efforts. Activities should be done gradually and only when children can respond. The content of the Physical Education program must also contain relaxation exercises. The other children in the class should also be taken into account in these activities. Not activities that make them feel that foreign classmates are holding them back or forcing them to compromise their play (Vogler, Koranda & Romance, 2000).

The activities, especially in groups that have foreign children with, should not be competitive or require the participation and help of others, because then these children would not be accepted and consider the other children to be holding them back (Vogler, Koranda & Romance, 2000; Goodwin & Watkinson, 2000). The peer group is important for learning motor skills, as they can be important teachers of children with SEN (Lieberman, Dunn, Van der Mars & McCubbin, 2000). Teachers should never be left alone without the support, guidance and continuous training of qualified colleagues (Block & Zeman, 1996; Vogler, Koranda & Romance, 2000 op. ref. Albanidou, 2012).

People with a cross-cultural background should be given opportunities to develop their personality through Physical Education and sports programs that suit their requirements and needs. Before enrolling a child in the Physical Education course, it is necessary to evaluate their motor development:

- a) to assess the individual needs of the child,
- b) to assess difficulties in movement and self-care,
- c) to determine the type of activities in which each child needs to be trained,
- d) to assess the level of performance,



- e) to assess the level of improvement and
- f) to assess the effectiveness of the implemented program (Stamatiadis, 2007).

Sherrill (2004) states that effective teaching in an inclusive course includes the following teaching principles:

- Maintaining a warm and positive climate: Positive learning environments include realistic expectations, mutual respect, cooperative relationships and activities, treating each child with dignity, seeing every child as a winner, and focusing on abilities rather than disabilities.
- Individualize teaching by making adjustments: The teacher must assess the capabilities of his students and apply adjustments so that the students have increased success. Equipment, facilities, space, time and other variables can be modified and adjusted.
- Evidence-based practice: Using an Individualized Education Program, using the Segmented versus Whole Method, and varying levels of assistance are parameters of individualized instruction.
- Dedicate enough time to course objectives: Each activity will refer to a specific purpose of the Individualized Education Program.
- Shared responsibility for learning and demonstrated self-determination (decision-making) of students: Students should not be simple observers and facilitators of the lesson conceived by the teacher, but learning would be more effective and more meaningful if they themselves have taken part in the lesson planning. Finally, it is worth referring to the 8 'P's' which according to Vickerman (2007, p.98) are necessary for the success of the integration in the Physical Education course since he believes that the integration must be treated holistically.

That is, it is not enough just to have the policy for a school for all or the pedagogical approach of the teacher. Vickerman (in Petrie, Devcich & Fitzgerald, 2018) explains that the success of a co-educational program is due to the coexistence of 8 factors of a framework:

- a) understanding the philosophy and principles governing integration and how they relate to PWDs (Philosophy)
- b) in understanding the reasoning behind the strategies for integration (Purpose)
- c) the ability of the teacher to be proactive, to prevent difficult situations and to be inventive in solving them (Proactive)
- d) promoting the cooperation of all students with each other (Partnership)
- e) in the understanding and recognition of the fact that co-education is a time-consuming process that often requires a change of course and strategy (Process)
- f) in the recognition of the institutional policies for equality in which the K.F.A. will demonstrate commitment (Policy)
- g) in the recognition that the keys to success lie in the understanding that teaching, learning and assessment are serious processes for which K.F.A. must adopt flexible methods (Pedagogy)
- h) promoting the discussion of all the aforementioned elements and their reflection by all interested parties (Practice).

## **5. PURPOSE OF INCLUSION**

The main purpose of inclusion is to widen access to education and promote full participation and opportunities for all students who are vulnerable to exclusion to realize their potential. Inclusion

concerns a wider number of students and not just those who have been identified as having special educational needs. It concerns all students who are at risk of being excluded from educational opportunities and ending up in school failure. Effective strategies for promoting positive attitudes include:

- a) Ensuring that all teachers are qualified and feel able to take responsibility for all students, regardless of their individual needs,
- b) Supporting the participation of students and their parents in making educational decisions. This includes involving students in decisions about their own learning, and supporting parents to make informed choices for their children (DePauw, K.P. 2000:23).

The main obstacles teachers face in implementing inclusion are inadequate planning, lack of trained staff and logistical support and lack of financial resources (Downing, 1996:46) and need appropriate values and attitudes, experiences and skills, knowledge and understanding. This means that teachers must be prepared to work in the context of inclusion during their initial training. It also needs an organizational culture and ethos that promotes inclusiveness and such a culture: –It includes everyone: students, their families, teachers and educational staff and the local community. –It is directed by all members of the school and results in: –Practice that avoids segregation, teamwork and interdisciplinary approaches. Collaboration and collegiality among teachers can lead to curriculum differentiation, which is due in part to a reduction in the student-teacher ratio. Some of these difficulties are:

- a) the agreement between teachers on the necessary time for educational planning (Downing, 1996:50-52),
- b) any changes-movements of teachers that make the planning process difficult, as when you socialize and work with a certain person you learn their habits and feel comfortable,
- c) the planning of the students such as for example the distribution of the «other» students within the classes in order to maintain the heterogeneity of the students with the ultimate goal of better support for all members of the class,
- d) the additional and specialized workload,
- e) the managerial support that entails with the good relationship and cooperation with the management and
- f) the opportunities for staff development-development (Vogler, Koranda, & Romance, 2000:24; Papadopoulou, Kokaridas, Papanikolaou, & Patsiaouras, 2004:45).

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## 14. New Technologies and their use in interculturality

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### ABSTRACT

In recent years there has been a rapid evolution of New Technologies and consequently an increasingly attractive and applicable use of Information and Communication Technologies (ICT) in the field of intercultural education. The introduction and utilization of the computer, projector, tablet and many other technological tools, as well as digital media, such as the use of the internet, software, and some applications, whose capabilities are used in the modern multicultural classroom, are observed.

As characteristically mentioned by Zachos (2014), Information and Communication Technologies are constantly evolving, affecting modern society and redefining the socio-cultural, political and economic “becoming”. The opinions of researchers around the use of ICT in education have a wide range. In relation to pedagogical principles, new technologies are an alternative form, not only for the preparation of teachers in terms of teaching, but also a way to enhance and modify the contents of the learning process, increasing learning opportunities, especially for students with different cultural backgrounds. characteristics.

**KEYWORDS:** interculturality, Information and Communication Technologies, education.

### 1. THE INNOVATIVE DYNAMICS OF ICT IN INTERCULTURAL EDUCATION

Through the production and development of appropriate material, ICT can contribute to the realization of the goals of intercultural education and be a modern and effective means of helping efforts to combat school failure and social exclusion experienced by foreign students. An attempt is made to record theoretical clarifications and research data, without in any case giving comprehensive positions, due to the abundance of research and studies on an ongoing issue.

School textbooks need a radical restructuring, as Girod & Cavanaugh (2001) typically state, in order to shape, reinforce and modify the content and objectives of the curriculum. The innovative dynamics of ICT in intercultural education presupposes the integration of a series of activities with their application in the host classrooms.

The reasons and factors for the integration of ICT in teaching are thoroughly analyzed, as numerous cross-cultural perspectives of useful technological tools in learning and educational practice emerge. The role of ICT in the Reception Classroom concerns the approach to the educational process for which research is also being conducted. Finally, the obstacles and difficulties of using ICT in the education of foreign students are mentioned and effective teaching strategies are developed to overcome any cultural obstacles, stereotypes and prejudices.

Information and communication technologies (ICT) have experienced a very large development in recent years. This fact creates new problems in the educational systems of the countries. At the same time, however, it also opens up new perspectives, enriching the educational process of learning and teaching with unprecedented possibilities. In other words, technological literacy has enormous impli-

cations, both for the individual and for society at large, and the school cannot take these achievements for granted. Consequently, he is led to modernize the teaching methods and tools he uses, inevitably including ICT in his daily practices.

Thus, electronic computers have penetrated the Greek educational system of our country and can, with the correct use by teachers, bring about a significant improvement in learning outcomes. They can even help to overcome many of the obstacles faced by students and be an important tool of intercultural pedagogy, creating opportunities for communication and interaction of culturally diverse students (Palaiolougo&Evangelou, 2012). The computer can be an important tool for managing students' otherness and multiculturalism in general.

If we do a brief review of the international literature, we will see how the use of computers in classrooms with immigrant students has brought about particularly positive results: promotion of cooperative learning, twinning of distant schools, opening of the school to society through A.P. that utilize the communication capabilities of computers and the internet. In other words, new technologies assist the learning process of foreign students, especially in mastering the reading and writing mechanisms of the second or foreign language (Cummins, 1981b).

As Gorski (2001) and Hammond (2000) point out, multimedia, e-mail, chat and distance learning are Internet resources that can be helpful in teaching practice. Since social interaction plays an important role in distance education, communication activities should be designed, which take place through asynchronous communication tools (personal communication page, e-mail, public discussions, links to other websites), but also synchronous tools. communication (real-time chat, video conferencing).

By exploiting the development of telematic learning applications, the understanding of the various ethno-cultural and linguistic differences on the one hand and the similarities that the historical and cultural environment of the various peoples may present on the other can be achieved (Makrakis 1996, in Raptis&Raptis, 2001).

One of the most recent developments of recent years is the ever-increasing application of the Internet, which provides direct access to geographically limited sources of cultural-pedagogical material, such as specialized libraries, national/global databases, cultural institutions and organizations, museums and but. Emphasis has been placed by Evangelou (2007) on the fact that it expands the possibilities of promoting intercultural education and increases the learning opportunities of all members of the school community.

Zachos (2014) in his study on the current issues of intercultural education notes that virtual reality helps students with different origins to better understand the existence of objects and spaces that are not possible for students to visit or interact with real people. that are far away or in imaginary places. The magic of imagery and interaction brought about by new learning environments furthers the goals of intercultural education.

Taking advantage of the possibilities of new technologies, namely audio, video and text, as well as the Internet, learning opportunities are increased and space-time limitations are minimized (Katz et al, 2002). In addition, it facilitates the preparation of joint tasks between students from different parts of the world and with different cultural, social or economic backgrounds, which positively promotes intercultural understanding and cooperation (Evangelou, 2007).

Girod& Cavanaugh (2001) emphasize that the internet gives great freedom to teachers as well as to students and enables them to find the most recent, reliable and available information regarding the subject they are studying, as opposed to school textbooks. Students often have the same access to information as their teachers. By exploring the internet they may feel a great deal of freedom in

acquiring knowledge and perhaps for the first time feel that they have the ability to know more about a subject than their teacher. This fact, of course, entails risks and requires the development of new skills, such as that of continuous assessment, in a way that they can be used effectively in the learning process. Students and teachers should not rely exclusively on school textbooks, but learn to explore the limits of knowledge and information (Evangelou&Kantzou, 2008). The World Wide Web has the potential to greatly expand the range and depth of collaborative capabilities not only for educators but also for students (Gorski, 2001).

Within this context, according to Solomonidou (2006), many new structures have been discovered and the utilization of ICT has been adopted in the educational process by applying “new ways of advanced distance learning systems, interactive multimedia - hypermedia applications, distributed tools learning systems, virtual reality educational systems, work and learning tools for individuals (groupwaretools), while the connection of digital technology with mobile technology opens new perspectives for learning through mobile devices (mobilelearning)”.

The role of technology for the correct acquisition of knowledge and skills with regard to students from different backgrounds (Cummins & Sayers, 1996) highlights the computer as a supervisory through teaching and a source of information, but at the same time as a dynamic tool of cognitive development, thanks to the many and its various properties. It can be used by providing an interactive learning environment, with multiple and flexible representations of knowledge and information, a simulation environment for modeling, experimentation and more generally a constructive approach to problem solving, the connection to multimedia work plans, communication-mutual-information networks, as well as connecting to chat rooms (Evangelou, 2007).

It is certainly a fact that the creation of chat groups on the internet helps foreign students to develop oral skills and to limit hesitation in face-to-face discussion (Evangelou, 2007).

Since the chatrooms are divided into categories based on the different topics of discussion, they can be very useful for teachers of multicultural classrooms either to create virtual classrooms, or as teaching manuals, or to develop new ways of delivering the curriculum. An important problem that arises, however, is that technology may inadvertently privilege only certain ways of processing information while undermining others.

To avoid this, students can develop a series of multimedia work plans (projects) and exchange views on topics that concern and interest them with peers from other countries (Sykes & Reid, 1999).

To conduct a cross-cultural study, a WebQuest would be appropriate for students to conduct a web search survey. In other words, teachers can design and program a multitude of multicultural activities or even develop educational programs in collaboration with other schools abroad.

Finally, teachers can, with virtual visits of pedagogical content, teach through lesson plans, virtual museums, cultural videos and audios, that is, drawing on sources from different countries with other linguistic and linguistic data (Gorski, 2001). Or respectively make use of some educational software in terms of understanding difficult and abstract concepts, active cognitive processing of information, developing problem-solving skills, transferring knowledge and generally achieving higher-level learning goals.

Educational software are furthermore immediately recognizable representations, simulated environments of scientific microcosms and as such impart a scientific meaning directly to what is observed during their use. Modern educational microcosms offer representations that allow a direct matching of what is observed on the screen with real concepts and phenomena. In the educational software we could also include the electronic game. The modern world of play that has its starting

point in digital technology aims to entertain and amuse children, who spend a large part of their day or their free time (Carol et al., 1995). Zachos (2014) suggests that if the school can properly harness this children's attraction to technological media, they will become valuable tools in realizing the goals of intercultural education. In general, multimedia can give a different, attractive and playful character to the way of teaching and make ICT a useful pedagogical tool for the teacher.

## **2. OBSTACLES AND DIFFICULTIES IN THE USE OF ICT IN THE EDUCATION OF FOREIGN STUDENTS**

The introduction and utilization of Information and Communication Technologies (ICT) in primary school is an event inextricably linked to the daily educational and learning process. However, it is often the subject of great controversy, with several teachers being supporters and others critics and wary of using New Technologies in teaching. Some critics comment that the technologies are dangerous for children's health, learning and creativity. On the contrary, supporters claim that if technologies are used appropriately they can contribute to the personal, social-emotional and cognitive development of children.

However, as Palaiologou&Evangelou (2012) state, "it is a fact that many foreign students do not have equal opportunities to access computers, powerful software tools and the internet". This weakness inevitably leads to learning gaps in relation to the students of the dominant social group and determines their entire academic course (Paleologu&Evangelou, 2012).

The school situation of students belonging to different minority groups, who are differentiated by their ethnic roots and cultural origins, such as language and religion, values and lifestyle, is clearly more difficult compared to students of the dominant race. and cultural group. Students with different linguistic and cultural backgrounds show learning difficulties, low school performance, face integration problems in the social group of the school class and in the field of professions and employment and general socialization problems. If we consider the child's socialization as a process of progressive individualization and at the same time social integration, the linguistic and cultural differentiation of these children by definition poses limitations and obstacles to the smooth development of the processes of self-formation and personal (individual and social) identity.

The Canadian researcher Chumak-Horbatsch (2012) distinguishes eight aspects of the language portrait of bilingual young children. According to her research, children of immigrants:

1. They are potentially bilingual.
2. They have another linguistic reality outside of school.
3. They successfully handle both languages (native and host country).
4. They have dual needs in language and literacy.
5. They lead to the loss of the native (weaker) language.
6. They feel isolated and lonely.
7. They are in confusion and language shock.
8. They hide their native language and go into a silent phase.

These are also the reasons why phenomena such as the failure to improve learning results or the teaching method are often observed, and this is due to the inappropriate design of learning processes, as well as the failure of teachers to adopt technological innovation and a constructive approach to learning. Especially in the part of intercultural education, however, ICT seems to be a tool that arous-

es the interest of culturally diverse children. Recent studies highlight their utilization and usefulness not only in terms of the interest they generate by making learning fun, but also in creating collaborative environments, facilitating the educational process. Therefore, technological tools are an easy-to-use supervisory teaching tool for teachers, an innovative aid that improves the learning process for foreign students.

The teachers, of course, although the majority of them have knowledge regarding the use of New Technologies, they nevertheless show an inability to utilize them in their teaching. According to Bosniadou (2006) regarding infrastructure and supporting factors, there is a great disparity in the quantity and quality of the technical equipment available to schools. At the European level, it seems that the students of the Scandinavian countries, Canada and New Zealand use the new technologies more, while in Greece in many schools the equipment is still old, of low quality and unsuitable for multimedia.

Another inhibiting factor appears to be the lack of protection against access to inappropriate material, which raises serious ethical issues. Cost may also be a factor as schools in remote areas do not have access to a telephone connection or equipment. All European countries spend quite large sums on the purchase of equipment and network infrastructures. In Greece, the resources for the education and training of teachers seem to be insufficient (Bosniadou, 2006).

Thus, the continuing training of teachers can be seen as essential for the effective integration of ICT in the multicultural school classroom. There are hundreds of educational software aimed at children based on either behavioral or constructivist theories of learning, allowing for the creative expression and interaction of children, let alone diverse bilingual learners.

Therefore, teachers must be able to evaluate the software provided to them and choose the appropriate ones for their teaching based on the data of each school class. Based on developmental appropriateness, significant changes in demographic data, diverse cultural data to provide multiple avenues of exploration and opportunities to facilitate communication and interaction effectively promoting any diversity.

Despite the absence of logistical infrastructure and the country's multidimensional educational policy regarding education, the issue of creating appropriate software is considered a necessary qualification of the teacher based on epistemological, pedagogical and other interdisciplinary criteria (Komis, 1996).

It is a fact that the teacher must be globally educated, critical, creative and collaborative, and his training in ICT is not enough to make him competent in his pedagogical practice. Technology these days is being upgraded and modernized at a rapid pace, so even the most successful software packages may need updating and restructuring. The teacher is the one who will evaluate and choose the most appropriate technological tool, the most suitable program and will use them according to the needs of each student. It will give the breath they need, it will improvise based on the topicality and the needs of the students, it will choose the weight to be given to specific values, it will respond to the gaps of unpredictability, it will create the appropriate dialogic and socio-linguistic framework for decoding signals and the transformation of common sense meanings into scientific, interdisciplinary, philosophical and/or advanced aesthetic search meanings (Rapti&Raptis, 2004).

There are cultural differences in educational philosophies, teaching practices, attitudes and perceptions regarding the use of new technologies, which affects teachers' behavior and is sometimes explained by local disparities in equipment and services. Therefore, there is a great need for research, development and training programs that will respond to the school's multicultural reality.



### 3. CONCLUSIONS

As a result, the innovative dynamics of ICT are the most appropriate educational means of providing personalized assistance to culturally diverse students. After all, foreign students belong to vulnerable social strata dependent on economic and political power in our country, which is a crossroads for a refugee solution nowadays and tries with various policies to respond to the needs of the school reality.

New technologies must be integrated into daily school practice by teachers and adopted by foreign students by applying digital media systematically and effectively to achieve the goal of the Learning Society (Bosniadou, 2006).

Under the light of this view the teacher will be able to devise solutions, in order to provide a controlled uniformity of education to culturally diverse students, developing innovative creative initiatives, with networks of collaborations and alternative teaching methods. This kind of education is essentially what is desired, it is not applicable in today's school and needs to be further enhanced by personal professional development through teacher training.

Teacher training must combine theory and practice and contain not only pedagogical training, but also technological training. And this, because learning is based on the principles of the discovery method with an open, participatory approach of the students, but in order to achieve this, a basic condition is the existence of correct educational applications at the same time. Therefore, the support of the teaching method is a priority and choice of consciously determined teachers to expand educational professional opportunities (Rapti&Raptis, 2004).

The motivations and factors of this construction are of course the basis of the educational transformation and the upgrading of the entire educational process. As typically mentioned by Rapti&Raptis (2004) "the institutionalization of a relevant and scientifically supported decentralization of the educational process, as well as the flexibility of the syllabus, so that the teacher is able to undertake constructive initiatives and actively participate and creatively in the construction of the pedagogical design of his teaching in the modern school and not to be "suffocated", together with his students, by a huge amount of material, which leaves no room for their involvement in activities, with which critiques are developed, their creative, social and personal skills and their personality is built from all sides".

The use of Information and Communication Technologies must be part of the pedagogical goal-setting, on the one hand by upgrading the syllabus and the wider learning process, on the other hand by the impending intercultural transformation of our educational system.

This can be achieved by teachers' adoption of complex exploratory, collaborative, experimental and creative activities based on the utilization of technology. This support of teaching practice with the enrichment and mediation of new technologies create free access to information and knowledge. This is essentially both the gain of bilingual students and the pursuit of intercultural education.

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## 15. Use of New Technologies in Special Education

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### ABSTRACT

Information and communication technologies (ICT) offer many possibilities to teachers and students. The application of ICT in teaching and learning can provide many benefits, such as facilitating communication, increasing access to information, improving motivation, increasing problem-solving abilities and better understanding of complex ideas. The article is a literature review of previous research on the subject. The review shows that Given the key role ICT can play in helping children with SEN in their communication and participation in learning, research on the use of ICT in supporting education is not as rich as might be expected. Most information is provided by reports from charities and associations of people with SEN. However, the contribution of ICT to people with SEN, both at school and at home, is evident. Many case studies, although small in scale, are of considerable value in providing teachers with examples of the use of different types of ICT in different circumstances, some of which may be applicable to their own students, to incorporate into their teaching. The role of the teacher is crucial for the comprehensive development and utilization of new technologies. Therefore, ICT can offer students with special educational needs and disabilities improved access to learning and curriculum requirements that may have been previously inaccessible.

**KEYWORDS:** special education, educational technology, Information and communication technologies, Special Educational Needs, educational software, inclusive education.

### 1. INTRODUCTION

Information and communication technologies (ICT) offer many possibilities to teachers and students. There is a fair amount of evidence and studies showing that ICT can and does improve learning outcomes. Providing high-quality software that fits the individual's specific needs can act as an effective and powerful learning tool.

The application of ICT in teaching and learning can provide many benefits, such as facilitating communication, increasing access to information, improving motivation, increasing problem-solving abilities and better understanding of complex ideas. ICT can offer students with special educational needs and disabilities improved access to learning and curriculum requirements that may have been previously inaccessible. Investments in ICT and the development of policies and practices to meet the demands of personalized education programs have created unprecedented opportunities to include all students in meaningful learning experiences. This emphasis on inclusion, combined with ever-developing technologies, is now generating great interest in the use of various ICT applications, both for personalized learning and for the integration of students with disabilities into a mainstream school environment.

In recent years it has been shown that technology can help students overcome any communication and physical difficulties they may have to participate effectively in course activities and access a wid-

er curriculum. Interactive computer-based systems allow for the possibility of individualized instruction to meet students' needs, interests, and learning styles. Individualized planning is fundamental to the successful use of ICT in supplementary teaching, as it is for other forms of learning support. The planning process should include identifying the student's individual learning needs and considering how ICT could be used to meet these needs. The belief by educators of students who face any difficulty, that every student has a right to all areas of cognitive learning, is now established. The use of ICT can make this right a reality, and the curriculum should support its use, where appropriate, in a learner-centred way.

## **2. INFORMATION AND COMMUNICATION TECHNOLOGIES**

The terms "Information and Communication Technologies", "New Technologies", "Educational technology" and "Multimedia Technologies" refer to all educational and cultural products and services involved in the combined use of various media and which are accessed via television or computers [1] (Bosniadou, 2006). Educational technology is the discipline that looks at how to integrate resources of all kinds into teaching and learning. ICT are just tools, you should talk a bit about the importance of educational technology. Specifically, ICT includes devices and applications that help in information retrieval and communication such as television, mobile phone, computer as well as the services they provide, such as video conferencing and distance learning [2, 3] (Komis, 2004; Kumar, 2008). In the present work, the terms ICT and new technologies will be used as equivalents.

New technologies also include assistive technologies. Assistive technology refers to products and services that can compensate for functional limitations, facilitate independent living, and enable people with disabilities to realize their potential [4] (Teles & Santos, 2012). The terms assistive technologies and ICT are often used interchangeably, but assistive technologies mainly refer to the access of people with disabilities to information.

Yet, another term that is closely related to educational technology is that of educational software as it is the applications through which teaching and learning are enhanced [2] (Komis, 2004). Educational software is a product of technology with which we try to teach a subject by implementing a specific pedagogical philosophy and a specific educational strategy (Institute of Computer Technology, 2003). In particular, educational software is considered the software that facilitates learning using the computer and contains didactic objectives, complete scenarios and mainly brings teaching and learning results [5] (Mikropoulos, 2000).

## **3. INFORMATION AND COMMUNICATION TECHNOLOGIES IN SPECIAL EDUCATION**

### **3.1. Supportive technology**

The rapid development of technology, computers, and software has undeniably affected all areas of human life. Whether for business or entertainment reasons, it has become an integral part of our daily life. Education is no exception. As an inalienable right of all, access must also be made possible for people with disabilities.

When we refer to technology, from the perspective of people with special needs, we are essentially referring to all assistive devices that improve their functional capabilities. Like the difficulties faced by students with learning disorders they are of various forms, so assistive technologies also differ

according to the purpose they serve. It has been said that for people without disabilities technology makes things easier. For people with disabilities, technology makes things possible.

In special education we can separate two categories, accessibility technologies and educational software. Accessibility technologies refer to those means that directly help the students with learning disorders to overcome their difficulties, while educational software contributes to the access, understanding, and absorption of knowledge. The former can also be used in the daily life of students, while the latter help them acquire new skills. Traditionally the concept of accessibility referred mainly to the possibility of access and movement in a space and specifically in the built environment, in recent years, due to the rapid development of information technologies and communications (ICT), the concept of accessibility is also defined by the additional possibility of students with learning disorders in the exploitation and use of all relevant applications and services, as well as interactive systems [6] (Diamandopoulos, 2016).

Technological means such as:

- interactive table
- specially configured keyboards and mice
- means of remote control with eye movements but also software solutions, many of which are already available in the operating systems we all use every day, such as
- voice typing or automatic text reading
- on-screen keyboard
- simplification of commands

are some of the facilities for training but also any other use. In addition to more specialized media, everyday devices such as smartphones or tablets can benefit students. In Greece, the legislation makes it difficult to use such devices in the educational process, however research is being carried out.

More generally, any technological means or tool that helps or offers new possibilities can have benefits in the educational process, but the role of the teacher in relation to how he/she integrates the different resources is important as well. Next we will see applications and elements for the media mentioned above. Below are examples of educational software designed with expert input for students with disabilities.

### **3.2. Accessibility Technologies**

Accessibility in the sense referred to here refers to the design of products, devices, services or environments so that they can be used by people with special needs. The concept of accessible design and the practice of accessible development ensures both “direct access” (ie unaided) and “indirect access” meaning compatibility with a person’s assistive technology (for example, computer screen readers). Accessibility should not be confused with usability, which is the extent to which a product (such as a device, service, or environment) can be used by specific users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specific context of use [7] (Lawton et al, 2014).

Interactive Whiteboard: The interactive whiteboard is a device that is connected via USB to the PC, which is also connected to a projector. The projector projects the screen onto the board and using it the operator can control through the computer itself or remotely, with specially designed pens or, depending on the board, with their fingers. The fact that only basic computer knowledge is required and one can use them like conventional tables makes them a useful tool for both conventional and special education. Using the hands instead of the keyboard and mouse allows the learner a more di-



rect contact, so that greater concentration is achieved on the subject, without being distracted by the medium. It is precisely this immediacy that makes the interactive whiteboard so effective in special education. Students with mobility difficulties can use the infrared pen. The visually impaired benefit from the large screen size. Distracted children show more concentration. Disadvantages of the interactive whiteboard are the high cost of the equipment as well as the possible reproduction of the conventional teaching method despite the additional possibilities it provides [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

Custom designed keyboards and mice: Keyboards with enlarged keys, color-coded, or with a different layout are widespread for the convenience of A.M.E.A. They are ideal for serving a wide range of learning difficulties, from students with dyslexia to motor difficulties. In addition, they can be customized with a key isolation grid (KeyGuards) which prevents the accidental typing of other keys. In the category of mice there are many more options due to the increased complexity in using the device, as more detailed motor skills are required. More common alternatives to the classic mouse are joysticks or so-called “trackballs”. In these devices the movement of the pointer on the screen is carried out with the stick or the ball respectively. Because the hand movement required is much less, they are suitable for people with mobility difficulties. The rest of the buttons that correspond to the buttons of the ordinary mouse are also placed in appropriate positions. Other alternative mouse options are mouth control devices, such as the Integra Mouse, where commands are entered with small movements of the mouthpiece, or with head movements as detected by the device’s sensor, e.g. SmartNav [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

Daily aids: In addition to educational aids, accessibility technologies also refer to devices that improve the user’s quality of life in his daily life. For example, hearing aids, such as hearing aids, or cochlear implants which help to amplify sounds in cases of partial hearing loss in the case of headphones, or transfer sounds as electrical signals directly to the auditory nerve in cases of greater loss, with implants. Electric wheelchairs are an upgrade of conventional wheelchairs, offering greater self-sufficiency to the user, as no external push is needed for movement [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

Accessibility Software: In addition to external devices, there is also plenty of software to facilitate A.M.E.A. users. Many of these software can be used in conjunction with devices such as those mentioned above or even individually. The most immediate options the user has are built into the operating system. Depending on the operating system used, for people with visual impairments, there is the option of automatically reading the text displayed on the screen, where in addition to the text, the icons that the user can choose are also described. In addition, there is the option for an image with increased color contrast, for more distinct characters and easier reading, a magnifying glass, where it magnifies specific parts of the screen, while for people with limited mobility there is the on-screen keyboard, which allows typing with the mouse or with a corresponding alternative device, as well as the possibility of controlling the PC with voice commands [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

Educational software: The new training techniques that have begun to spread in recent years make extensive use of technology. It is logical, after all, since the PC, being more accessible than ever, has become an integral part of our daily life. This is more true in special education, where the difficulties faced by students and teachers are greater. Above we saw technological tools designed to help students with special needs overcome them. Below we will see software designed to enhance the educational process. Whether it is for people with learning difficulties or not, as in general education, so in

special education, technology can certainly make the process easier. There is plenty of free software that has been developed under the auspices of the Ministry of Education, Research and Religion, but also software developed by third parties that are available for purchase. Usually, this type of software is classified by disability for reasons of ease of finding, but without this urging the use exclusively by each group, instead it is suggested to use each software as it suits each student individually. A software source recognized by the educational community is “Accessible”. On the website one can find a wide range of educational materials, developed in-house with the support of the Ministry of Education and Culture, from digitized books for reading aloud, aimed at facilitating students with hearing problems, to multimedia applications specially designed for students with autism. Here are some examples of such software [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

**The dolphin:** Dolphin is an example of educational software for students with autism. These students face difficulties in communication, both orally and in writing. So this software is designed to help them understand the meanings hidden in the language. It is essentially an explanation of simple phrases with the help of images which can be in the form of pictograms, sketches, or images, black and white or colored. Then there is the possibility of completing comprehension activities. Students are asked to choose the correct answer to questions from the sentences they studied earlier [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

**Educational software for students with mobility disabilities:** Another example is educational software for students with mobility disabilities. In it students with mobility problems learn to interact with their environment with interactive choices as the characters describe the situations. The user does not have as intense an interaction with the software as in the previous example, as here we have a simpler form of narration, with the user having active participation only periodically, in the form of choosing the correct answer. In addition to social skills, students learn self-care in situations in which they find it difficult due to their disability [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

**EPITELO:** “EPITELO” was designed for students with concentration problems. It enhances their attention and the behaviors they display in their daily lives. As in the previous cases, each student is registered in tabs in which his data and his performance in each activity are stored, as well as other statistics, so that the teacher has a more comprehensive picture of the effect of the application on the child. This software is in the form of activities-games. Reaction time, active and passive choices, and correct or incorrect answers are recorded in the student’s record and can be presented in graph form for easier information retrieval. As stated in the accompanying teacher’s manual: “The goal of the learning environment is to improve the learning readiness of 1st and 2nd Primary students, their cognitive flexibility, as well as the development of their ability to self-control. This material contributes to the development of children’s ability to fix their attention on a stimulus or activity, to maintain their attention against intruding stimuli, to focus on activity-related stimuli, and to be able to control their impulsivity.” [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

**Demosthenes:** Demosthenes is a multilingual voice synthesis software, developed by the Department of Informatics of the University of Athens. It supports multiple voices, male and female, and the selection of features such as accent, regional idioms, prosody, etc. It also has the ability to automatically change the language when processing texts that contain more than one language at the same time. The system is controlled by voice characters, which define parameters such as voice, tone, speed, etc [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

**The Grid 2:** Grid 2 is symbol communication software. It allows the user to form sentences from cells that contain a word in the form of a corresponding image. By selecting the desired cell with the

appropriate image, the word or phrase is added to the sentence. It thus allows the rapid formation of phrases in an easy and simple way, using any additional assistive technology, such as alternative mice, eye tracking systems, or other equipment the student may use. The cells are fully programmable to perform a variety of actions, but there is also the option for a conventional virtual keyboard, for writing a more specific sentence. It is suitable for people with speech and communication difficulties, and is an integral tool for the expression of these people, not only in the school environment, but also in their wider everyday life. The application is available in several languages [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

#### **4. THE ROLE OF THE TEACHER IN THE USE OF ICT**

The role of the teacher is crucial for the comprehensive development and utilization of new technologies. Enabling the use of devices, software, multimedia and the internet as teaching and learning tools depends on teachers' knowledge and enthusiasm, as well as their motivation and proper preparation to put ICT at the service of educational and pedagogical needs of children.

It is also a challenge for special education teachers to design new education packages for children by enriching the content within the interactive space, where teachers, children and new technologies interact and update the content of the learning modules through an active process of adaptation. The learning process mobilizes, activates, cancels the stagnation and immobility that is a general feature of the Greek educational system and not only of special education. The software used today covers a wide range of special learning difficulties. Thus, the teacher, searching and researching bibliography and material can discover more than one software that will be suitable for the special class. Activities may seem simple to teachers, but it is a state of continuous discovery of knowledge for students - learners, who through them manage to be educated for their daily activities and acquire skills useful for their daily lives [8] (Thomopoulou, Nikolidakis&Konstantaros, 2012).

The process of discovering knowledge does not stop at school, but must continue at home, where with the right guidance parents, with the cooperation of the special educator must choose for children activities that help them develop skills. New technologies and the computer play a key role in this, as they create active learning environments that do not allow the child to be distracted from his activities and provide him with structured and accurate information about his activities and goals.

Through their new role, teachers can help children learn to make decisions, work with other children and learn by listening to others, creating and solving problems with others. To succeed in this new educational role, teachers must adapt their teaching practices so that they are more efficient in a technology-supported environment. There is no doubt that the teacher is the key to a successful use of new technologies. The teacher will give this technology the elements of adventure, discovery, essential content and pleasure or the elements of monotony and chores. Children seem to prefer the help of the teacher rather than the machine and teachers tend to help the weaker students more when working on the computer than during traditional teaching. Students also show more interest in learning and feel less frustrated in cases of failure when their teacher is present [1] (Bosniadou, 2006).

Many studies conclude that the role of the teacher in the effort to introduce and use ICT in schools is crucial. A study conducted in 26 countries [9] (Pelgrum, 2001) showed that the most important obstacles to meeting the goals of using ICT in schools are: insufficient number of computers, lack of knowledge and skills of teachers and finally, the difficulty of teachers to integrate ICT in their lesson.

[10] Kottis and Politis (2017), referring to research related to general education (due to the lack of corresponding research in special education), highlight the factors that affect the integration of ICT in education, which are: technological equipment, knowledge of teachers in ICT, self-efficacy, teachers' attitudes and perceptions, lack of support and time, gender and age.

Similar research in Greek schools has shown that secondary school teachers generally recognize the contribution of ICT to the learning process [11, 12, 13] (Kartsiotis, 2003; Kynigos, Karageorgos, Vavouraki&Gavrilis, 2000; Tzimogiannis&Komis, 2004). However, many teachers who express positive attitudes are reluctant to use computers in the classroom because they do not feel confident about their abilities [14] (Politis, Rousos, Karamanis, &Tsaousis, 2000). Teachers find that the use of ICT brings about changes in the learning environment and in the traditional roles of students and teachers and deem it necessary to train and support them in pedagogical use of ICT, so that they can adopt modern teaching approaches [15] (Kasimati&Gialamas, 2001).

With regard to the sensitive area of special education, it is important to determine whether teachers are cognitively trained in ICT to educate students with special educational needs. Also, whether they believe that a specially designed educational application can help them, and whether they know the benefits of using new technologies.

## **5. THE EUROPEAN CONTEXT OF THE SPECIAL EDUCATION PROGRAM**

Nowadays, the possibility of education and learning for students with special needs differs in many European countries. Also, all the countries of the European Union have formed the view that the satisfaction of the educational needs of every pupil and student is an important element for the quality of life of all European citizens [16] (Asprogerakas & Ioannou, 2007).

Through an EU program, the so-called "Electronic European Operational Program (2000)" states that education is the pillar of the Information Society, and has a significant impact on the daily lives of many citizens. Also, through a study conducted by the OECD "Learning how to change: ICT in Schools" (2001) points out that ICT is able to change the school experiences of many students around the world. The data obtained through the "Eurydice" network (Key Numbers 2000) state in their entirety that European countries have at their disposal a national policy that allows the integration of ICT in the field of education [17] (Lum et al., 2016).

On the other hand, the implementation of this idea so that all students in European countries have easy access to all electronic programs and technology is far from the current situation. Then, in a study by the OECD itself, it is indirectly noted that the installation of ICT through different ways is not enough to be implemented by students and teachers to have the full exploitation of the information society [18] (Humblet et al., 2016).

In addition, the evolution of the use of ICT in education has increased as it is now included in the curriculum of most European countries, and is taught as a regular subject. It is worth noting that teacher training and learning can be offered as an option, although it should be noted that support from a qualified and qualified staff is only available in Secondary Education [19] (Yaokumah et al., 2016).

According to study findings, ICT does not introduce radical changes in the education systems of European countries unless their potential is fully developed as a learning tool. Of course, many countries are still at the stage of integration of Technology in areas of their educational systems as well as the issue of how technology will be able to really influence educational methods, of course it has not been presented yet [20] (Ntaliani et al, 2015).

Then, with data from the European School Network (1999) they show the lack of homogeneity that exists regarding access to the internet or electronic equipment throughout Europe. Also, the study of the network “Eurydice” (2001) considers that a digital rift prevails so countries should take care to create groups that will have access and the ability to use ICT in educational settings [20] (Ntaliani et al., 2015).

At the same time, information collected in Europe on the use of ICT in students with different special educational needs is quite limited in many countries. Of course, the existing studies show that none of the above has dealt in depth with the use of ICT by students with disabilities [21] (Niman, 2013).

In addition, while there is an international research forum that focuses on improving ICT accessibility for people with all types of disabilities, it does not include discussions related to the needs of special education students or teachers. Finally, opinions on ICT policies and methodology in the field of Special Education, which mainly concern the impending problems arising from the application of ICT in education within an educational framework, are not readily available at European level.

## 6. CONCLUSIONS

Given the key role ICT can play in helping children with SEN in their communication and participation in learning, research on the use of ICT in supporting education is not as rich as might be expected. Most information is provided by reports from charities and associations of people with SEN. However, the contribution of ICT to people with SEN, both at school and at home, is evident. Many case studies, although small in scale, are of considerable value in providing teachers with examples of the use of different types of ICT in different circumstances, some of which may be applicable to their own students, to incorporate into their teaching.

Students with unequal access to information risk losing some of the most basic privileges. If technology is not accessible to people with SEN, and if information is processed in a way that excludes certain groups of people from accessing it, technology will eventually prove to be a threat to these students. The digital divide, moreover, is itself capable of further intensifying social exclusion. However, there are significant challenges in choosing the right assistive technology for the education of children with disabilities.

Despite the benefits of ICT in special education, however, there are many obstacles and barriers to the successful implementation of ICT in student support. The reasons may be the lack of financial support, the limitation of time, insufficient information, the lack of teacher training.

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## 16. The use of ICT in the education of children with special educational needs

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### ABSTRACT

The issue of the education of children with special educational needs is one of the most controversial in the field of education. Although their right to education is taken for granted, there is no general agreement as to the methods and means that should be used by teachers. New technologies can offer students with special educational needs and disabilities full or increased access to learning, facilitating communication, strengthening motivation, support and compensation for the dysfunctions they may show in some areas. The contribution of new technologies to the personalization and differentiation of teaching, which are a prerequisite for the inclusion of students with special educational needs, is indisputable. The purpose of this article is to analyze the above topic and to highlight the ethical issues arising from the integration of new technologies in the education of children with special educational needs. The topic is approached with a review of the Greek and foreign literature with searches in scientific databases such as PubMed, Google scholar, ResearchGate etc. but also printed literature. It was defined that developments in new technologies are not self-evidently good or bad or semantically neutral, even the way in which they were used, especially in the area of Special Education or Education, is very important. The role of the teacher is therefore extremely important, who must be composed of a framework of ethical principles, in order to be able to make appropriate decisions for the benefit of his students.

**KEYWORDS:** ICT and Education, Special Educational needs.

### 1. INTRODUCTION

The issue of the education of children with special educational needs is one of the most controversial in the field of education. Although their right to education is taken for granted, there is no general agreement as to the methods and means that should be used by teachers. Rapid developments in technology have changed and continue to change modern societies. One of the social institutions that has been affected by the integration of new technologies is education. Information and Communication Technologies (ICT) offer new possibilities to teachers and students of General but especially Special Education. New technologies can offer students with special educational needs and disabilities full or increased access to learning, facilitating communication, strengthening motivation, support and compensation for the dysfunctions they may show in some areas. The contribution of new technologies to the personalization and differentiation of teaching, which are a prerequisite for the inclusion of students with special educational needs, is indisputable. The integration of new technologies into the educational process must be carried out by the teacher based on a plan that includes the identification of the student's strengths and weaknesses, his learning style, his needs and his interests. The right of children with special educational needs and disabilities to education is inalienable and non-negotiable and the use of ICT in the educational process can make it a reality.

## 2. BENEFITS OF USING ICT IN SPECIAL EDUCATION

The use of ICT in the sensitive area of special education initially responds to the need to provide equal educational opportunities to all students. The inability to use and utilize ICT by students with special educational needs leads to their exclusion and creates a digital divide between population groups (Angelopoulou, 2011).

In particular, the use of new technologies helps in the multisensory approach to teaching subjects, in the acquisition of problem-solving abilities and social skills (Angelopoulou, 2011), while simultaneously increasing the communication and interaction of students with special educational needs with their classmates and teachers (Mavrou, Lewis & Douglas, 2010). In addition, ICT offers greater autonomy so that students with disabilities can carry out daily activities on their own (Fernandez-Lopez, Rodriguez-Fortiz, Rodriguez-Almendros & Martinez-Segura, 2013).

There are many benefits in various areas of student development (e.g. cognitive, emotional, communicative). Computer engagement positively affects students' cognitive development and motivation (Aggelopoulou, 2011; McCarrick & Xiaoming, 2007). The latter is particularly important for students with learning disabilities and mental retardation who have reduced motivation to learn due to negative emotion and repeated failures. ICT can reduce the negative emotion these students experience and increase their motivation to learn (Williams, 2005). The teachers in the research of Williams (2005) reported that students with very severe learning difficulties through powerpoint were able to make very good presentations. In addition, students with fine motor difficulties (handling scissors, glue, etc.) with the use of appropriate computer programs and software were able to overcome these obstacles.

Furthermore, the use of new technologies in the classroom helps several students with special educational needs who have communication problems as through the use of the computer they can express preferences and opinions (Williams, 2005) and at the same time communicate in many ways, through the tools offered by the internet (e-mail, blog, etc.) (Forzani & Leu, 2012). In addition, the student himself can and does actively participate through the computer in various activities with the main goal of his inclusion in the general class (Paraskevopoulos, 2002). In the research of Bratitsis & Kandroudou, (2011), two students with significant learning and social difficulties, through the computer, were able to participate equally in the general class as well as develop their communication and social skills.

Furthermore, research shows the advantages of ICT for students with various disabilities, including learning difficulties, physical disabilities, speech and language problems, deafness, blindness and autism.

For students with learning disabilities, the computer acts as an external human memory that can reduce the memory workload of these students (Kumar & Wilson, 1997) since these students have limited working memory and struggle with complex mental calculations. It also helps to maintain their interest, motivation to learn (Hennessy, Ruthven & Brindley, 2005) and their attention to the lesson, areas where students with learning difficulties have significant problems (Kumar & Wilson, 1997).

In addition, ICT offers significant advantages to students with physical disabilities as well as to students with speech and language problems. Students with physical disabilities who were isolated from their classmates, after using ICT improved their communication skills, strengthened their friendships and were accepted by their classmates (Petrou & Dimitrakopoulou, 2005). Accordingly, new technologies help students with speech and language impairments improve their communication skills to interact and communicate effectively in the classroom (Hasselbring & Williams Glaser, 2000).

ICT is particularly useful for visually impaired and hearing impaired students. Specific devices as well as special software help these students to learn, communicate and participate equally in the educational process (Hasselbring et al., 2000).

At the same time, there are many benefits of using ICT for students with autism. Often these students show that they enjoy interacting with a computer because the latter work in a specific way and with defined rules (Christinaki, Vidakis & Triantafyllidis, 2013) as well as because the stimuli they receive are stable, predictable and controllable (Kalyva, 2005). Also, computers can provide an environment with coherence and stability, which is desired by children with autism due to the predictable responses, monotonous and emotionless speech that comes from computers, and limited social stimuli (Mavropoulou, 2011).

Various researches have shown positive results from the use of educational software in the education of people with special needs (dyslexia, down syndrome, autism, etc.) in the development of language skills, communication and social skills (Grynszpan et al., 2013; Nikolopoulou, 2011); Ramdoss et al., 2011). The use of appropriate special educational software enables students with special needs to engage in teaching goals and activities commensurate with their level of abilities (Angelopoulou, 2011).

At the same time, there are many benefits from interactive whiteboards, tablets and mobile phones in special education. The interactive board helps both the teacher and the student as it facilitates the management of the pace of the lesson, offers flexibility, plenty of educational material and at the same time reveals the active role of technology in learning (Anastasiadis, Mikropoulos, Sofos, Fragaki, 2011). At the same time, it can be used in many educational environments, which makes it a useful tool in special education as well (Niarrou & Grousouzakou, 2007).

On the other hand, touch technologies (mobile phones and tablets) are relatively new in the education of children with special needs and thus there is not enough research on their effectiveness. However, the nature of these devices as well as their strong visual and auditory features seem to positively influence attention, memory, perception and motivation of children with special needs (Campigotto, McEwen & Demmans Epp, 2013; Fernandez-Lopez et al., 2013). These technologies contribute significantly to the education of children with autism, mental retardation and learning difficulties as their use helps to improve communication, language and social skills (Haksiz, 2014; Mintz, Branch, March & Lerman, 2012). Also, they provide freedom in their movement within the school space and at the same time the activities can be transferred to the home space as well (Fernandez-Lopez et al., 2013). However, students must have developed specific cognitive skills to effectively use the applications of these devices (Campigotto et al., 2013).

There are many benefits that ICTs offer to the teacher, such as the fact that they enable him to create educational materials suitable for all levels of students, provide him with educational support via the Internet, give him greater prestige and enhance his professional prospects (Cox et al., 1999). More specifically, the special educator can organize the individual file and the personalized program of each student (Paraskevopoulos, 2002). The internet offers easily accessible and free materials about tools, methods of teaching and assessing people with special needs as well as information about the collaboration of special educators with parents and other professionals (Billingsley, Israel & Smith, 2011). At the same time, the computer also serves as an assessment tool (Peltenburg, Van den Heuvel-Panhuizen & Robitzsch, 2010) as the students' work on the computer constitutes an electronic portfolio of each student (Williams, 2005). Finally, it can be used to identify learning difficulties or difficulties in social skills, since several tests have been made electronically with the aim of evaluating various difficulties (Zaranis & Oikonomidis, 2009).

### **3. A REVIEW OF RESEARCH ON THE USE OF ICT IN GENERAL AND SPECIAL EDUCATION**

In this section, an attempt is made to present researches that have been carried out abroad and in Greece, and refer to the utilization of ICT in both general and special education. These researches have either been presented at conferences, or have been published in scientific articles and diploma theses.

In general education, many studies have been done on the use of new technologies, the benefits of integrating computers into teaching, the factors that encourage or discourage their use, as well as the attitudes and opinions of teachers, both in primary and in secondary education. For example, the work of Nikolopoulou (2018) presents research results regarding the reasons for use and the factors that influence when ICT tools are used in the classroom, as stated by 29 teachers of two experimental high schools in Attica. The main reason for using ICT in the classroom, according to teachers, is that the ICT tools are attractive, engage students and make the lesson more enjoyable. Factors that influence when and how ICT will be used in classrooms are classroom infrastructure, available time and the number of students in the department. In addition, it appears that a wider range of ICT tools are used in classrooms to achieve a variety of subject activities. The researcher concludes with proposals to facilitate the integration of ICT in the classrooms, such as the improvement of the infrastructure in the classrooms as well as the reduction of the number of students per department (Nikolopoulou, 2018).

In a research by Giavrimis, Papanis, Neofotistos & Valkanou (2010) teachers' opinions on the introduction of ICT in Primary schools and more specifically their contribution to the development of skills required in the modern era, as well as their relationship with the functioning of school units. The sample of the research was 118 teachers from Lesvos. The results generally show that teachers have a relatively positive attitude towards the contribution of ICT in education, but show a reluctance due to doubts about its usefulness in the learning process, while the important finding is that there is also a small percentage of teachers who express a negative opinion more generally for the contribution of ICT to education (Giavrimis, Papanis, Neofotistos & Valkanos, 2010).

Similarly, the small-scale quantitative research of Theodorakopoulos (2016) explores the views of primary education teachers on the integration of ICT in education, in a sample of 33 primary education teachers of the prefecture of Kastoria. From the findings of the research, it appears that teachers express themselves positively about the benefits of integrating ICT in education and recognize many and varied ways of integrating it. However, the insufficient logistical infrastructure, the lack of training and the insecurity they feel are considered by themselves to be the most important factors of difficulty for the use of new technologies in the classroom (Theodorakopoulos, 2016).

The study by Manesis (2016), conducted on a sample of 51 kindergarten teachers working in the prefecture of Attica, also reaches similar conclusions. The results of the research show that preschool teachers use ICT in their teaching in many ways. Important inhibiting factors that seem to hinder their wider application in the classroom are insufficient logistical equipment, insufficient technical support and the lack of available educational software, factors that have been highlighted by teachers in many relevant studies. The attitude of teachers towards the use of ICT is considered particularly positive, while at the same time the need for further training of teachers in ICT is highlighted (Manesi, 2016).

The research of Kosmidi, Kitsa and Kekkeri (2018) focuses on ICT in Technical Vocational Education (such as Vocational High Schools) and on the inhibiting factors of their inclusion. The thorough bibliographic review of research by the authors concludes that the low-quality logistical infrastruc-



tures, insufficient trainings, perceptions and attitudes of teachers, existing educational software and current curricula are the pillars that prevent the use and utilization of ICT in education process (Kosmidis, Kitsas & Kekkeris, 2018).

The teacher is considered perhaps the most decisive factor for the educational integration of ICT, which is why in the work of Schoretsanitou and Vekyris (2010), the individual characteristics of his personality are studied. Their research, on a sample of 168 secondary school teachers, concludes that the most important factor predicting the use of ICT in teaching is the self-efficacy of the educational use of ICT. At the same time, the need to train teachers in issues related to the pedagogical use of ICT is highlighted. Finally, an important finding of this research is the fact that positive attitudes, which according to similar researches are a condition for the educational use of ICT, are a less important factor compared to teachers' perceptions of their ability to teach with ICT (Shoretsanitou & Vekyri, 2010).

Also important is the study by Tzioka, Tsiotakis and Tsimogiannis (2018) which investigates the role of educational leadership in the integration of ICT in the educational practices adopted in schools. The research conducted on 202 teachers, primary and secondary education in the prefecture of Corinthia, concludes that the director of the school unit must have the role of a leader, who has a vision and forms an appropriate digital culture in the school, supports the teachers and takes ICT integration initiatives in his school (Tziokas, Tsiotakis & Tzimogiannis, 2018).

As far as the area of special education is concerned, there have been few research efforts to document the current situation, the attitudes of special school teachers, their knowledge of ICT and the conditions under which ICT could work in this area.

Drigas and Ioannidou (2013) reviewing the most representative research of the decade 2001-2010 referring to the use of new technologies in special education, conclude that ICT could facilitate the lives of students with special educational needs and around them (educators, parents) in terms of creating independent learning environments, ensuring access to the curriculum and strengthening the social inclusion of all individuals (Drigas&Ioannidou, 2013). However, although these case studies may be small in scale, they can be of considerable value. In the Greek literature, there are several case studies that present ICT and educational software applications that have been implemented for students with different special educational needs.

Such a case study is the one presented by Xanthouli, Gouli and Smyrnaïou (2013) and is a proposal for the use of new technologies and distance education as means/tools that can positively enhance the attitude and learning outcomes of students with special needs and help the teacher provide students with appropriate parallel educational support. In particular, an online and distance History course, lasting 25 hours, was designed with the aim of providing parallel educational support to a hard-of-hearing student, who is included in the regular school. According to the qualitative results of the study, the designed lesson positively affected both the student's performance and attitude towards the lesson, allowing him to feel like a typically developing student. The researchers emphasize, however, that in order for this to be possible, the training of teachers is deemed necessary both in matters of pedagogical/teaching utilization of new technologies as means for the parallel educational support of students with special educational needs, as well as in issues of approaching the students themselves.

The necessity of training teachers in disability issues and new technologies is emphasized by another case study recorded by Fragaki (2011) and it concerns the pedagogical use of ICT as an alternative means of education for children with disabilities and special educational needs, students of Pentelis Special School. In this study, students carrying out cross-curricular activities through educa-

tional software, work collaboratively to implement an educational scenario. The author comes to the conclusion that the special education teacher must be trained in the introduction of new technologies in the school, but above all to know how to deal with the needs of each student. She also emphasizes that ICT can offer students with disabilities an alternative and innovative perspective (Fragaki, 2011).

The above findings are reinforced by another case study in a Special Primary School class conducted by Psathopoulou and Kalamaki (2013). The researchers wanted to record if the students use the computer and in what way and if its use facilitates and promotes learning. In addition, they tried to highlight the role of the teacher in the learning process, investigating possible changes that could occur in the way of teaching and taking advantage of the multitude of possibilities provided by new technologies. The results of the research reinforce the opinion that the teacher should, above all, be knowledgeable and a good user of new technologies, so that he can choose and provide the student, or even create a series of software, that respond to the greatest possible adequacy to his needs (Psathopoulou & Kalamaki, 2013).

The pilot application of educational software in E.E.E.K. by Doukas and Bratitsis (2013) showed that the approach piqued the students' interest. At the same time, communication and cooperation were encouraged, while the production of work in pairs facilitated the participation of even more difficult cases, enhancing to a certain extent their self-esteem. The educational software, developed for the needs of a didactic intervention in the horticulture course, enhanced the cognitive development of students (mostly with mental retardation). The students, due to the cooperation among themselves, had the opportunity to learn a lot about the cultivation of plants that thrive in their area, making the intervention of the researchers successful (Doukas & Bratitsis, 2013).

The implementation of a multimedia application for children with autism developed by Dassiou and Tsioko (2013) and piloted in students of three special primary schools had similar results. This application ("Upper-Structure1") was implemented after redesigning, enriching and configuring an already existing educational software. The aim of the application is to improve and strengthen the educational process, which was achieved, as can be seen from the evaluation made by the students and teachers. The satisfaction of the teachers and the response of the students were particularly encouraging elements, as typically reported by the researchers (Dassiou & Tsiokos, 2013).

Boukouras, Gelastopoulou and Kourbetis (2014) present an interactive application for the education of deaf students. The interactive application developed, from the configuration of an already existing free and open source application, concerns a) the use of interactive subtitles (video educational material for deaf students uploaded to the platform, such as fairy tales, stories, school textbooks and presentations), and b) in the utilization for the creation and enrichment of a digital library-repository. The main objective of the application is to support the educational and learning process of deaf students and the learning of Greek Sign Language. However, it can be used by other disabled students than the deaf, by non-disabled students, by parents, by teachers and generally by all interested parties.

Tsiopela and Tzimogiannis (2016) chose to apply an online educational software to students with autism spectrum disorders with the aim of developing pre-professional skills. Specifically, as part of their study, they designed and developed the "Pre-vocational Skills Laboratory" (PVS-Lab) which is a web-based environment that simulates a school laboratory and includes a series of tasks, which are related to pre-professional skills included in the curriculum of the Special Vocational Education and Training Workshops (SVET). The application was used as a pilot for six E.E.E.K. students. and research findings showed that the use of educational software that simulated real-world tasks enhanced students with autism in developing pre-professional skills. At the same time, the students showed an

inclination in the tasks of grouping, sorting and repeating patterns, while they faced difficulties in the tasks that require memorization (Tsiopela & Tzimogiannis, 2016).

New technologies, such as mobile devices (tablets) are utilized in the study by Papazoglou, Karagiannidis and Mavropoulou (2017). Their sample is four students of a special primary school for children with autism spectrum disorders. The primary objective of the qualitative research was to design, implement and evaluate in practice a range of educational target activities on mobile devices for children with autism. The analysis of the data concluded that there was a positive effect of the medium, the material and the process on the performance and motivation of the students, while at the same time there were positive elements and reflections that can be used by researchers, teachers and designers of similar materials in the future (Papazoglou, Karagiannidis & Mavropoulou, 2017).

Regarding the opinions and attitudes of teachers who work in special education, there are researches in the Greek literature that were mainly done in the context of graduate or diploma theses. It is noteworthy that most research on the use and utilization of ICT in special education has been carried out in Primary Education, that is, in special primary schools.

The purpose of Barakou's (2008) quantitative research was to investigate the attitudes and perceptions of special education teachers serving in special elementary schools about the use of ICT in the educational process. 92 teachers from various prefectures of Greece responded to the questionnaire. The findings showed that special education teachers recognize the importance of computers in the learning process and argue that ICT creates new pedagogical learning environments. Teachers with the highest level of education and experience in ICT feel a particular attraction and confidence in computers.

And in the quantitative research of Kalyva (2013), the positive disposition of teachers towards the integration of ICT in the educational process is evident. Specifically, 67 primary education teachers working in Special Education are positive about the use and utilization of new technologies in Special Education, as long as the appropriate conditions exist, i.e. specialized training in ICT, personalization of the learning process and development of digital tools (Kalyva, 2013).

The small-scale qualitative research of Kottis (2016) which was applied to a research sample of four special educators, special primary schools in the city of Volos, and was done using a semi-structured interview, also reaches similar results. And the case study of Palioura (2015) examines the factors that enhance or hinder the integration of new technologies in the special school. The research was carried out at the ELEPAP special school in Agrinio and was carried out through observation and semi-structured interviews of the special educators. Finally, in Williams' (2005) small-scale qualitative research, difficulties faced by teachers included lack of and malfunctioning equipment, inadequate technical support, lack of appropriate instructional materials, and unusual challenges posed by the diverse needs of learners. However, the majority of participants, even technophobes, felt that computers and the Internet were a useful, additional teaching tool in their work, enhancing the learning experience (Williams, 2005).

#### **4. CONCLUSIONS**

The integration of ICT in education and the pedagogical exploitation of its achievements is not such a simple and colorless affair, since it is closely related to the various dimensions of the construction of knowledge and experience, the management of the learning content, the teacher-student relationship, the formation of didactic communication standards and social awareness, the connection of theory

with practice. It is therefore obvious that developments in new technologies are not self-evidently good or bad or semantically neutral, even the way in which they were used, especially in the area of Special Education or Education, is very important. The role of the teacher is therefore extremely important, who must be composed of a framework of ethical principles, in order to be able to make appropriate decisions for the benefit of his students.

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## 17. Global Education for Sustainable Development. The Case of Greece

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### ABSTRACT

The identity of global citizenship is a key notion in modern education fields. Education is not only directed towards transmitting knowledge but investing on the idea of a global citizen. Learners are not simply students of a teaching session but future citizens in a structured society regulated by rules and laws. A global citizen should learn how to coexist with other members of the society in a community that is part of the world. Education turns into holistic including moulding learners into future global citizens who live with respect, tolerance and solidarity into a community. Values and rights are top on their list since they have to run a life dictated by democratic values and legal rights. The literature cited in this chapter attempts to signal the importance of Global Education throughout European countries and specifically Greece in preparing learners for a future world dictated by certain goals of what is called Sustainable Development.

**KEYWORDS:** Global Education, Sustainable Development, Global Citizenship, Developmental Goals, Agenda 2030, Global Education Network Europe (GENE), Global Citizenship Education (GCED).

### 1. INTRODUCTION

There is no doubt that European countries care a lot about Global Education with the Ministry of Education of Greece being in this list. The bet is how to enhance and improve all these parameters related to a qualitative Global Education where everyone should have access.

### 2. GLOBAL EDUCATION OVER EUROPE

According to the Maastricht Global Education Declaration (2002), Global Education is education that opens people's eyes and minds to the realities of the world, and awakens them to bring about a world of greater justice, equity and human rights for all (Council of Europe/GENE, 2002).

Global Education is understood to encompass Development Education, Human Rights Education, Education for Sustainability, Education for Peace and Conflict Prevention and Intercultural Education; being the global dimensions of Education for Citizenship (GENE/EDUFI, 2014). It is a holistic approach which encourages a global perspective around the learner who tries to solve problems, cultivate critical thinking, explore and investigate. It is based on values of social justice, solidarity and equality inviting learners into evaluating how learning could contribute positively to a change in society on a local or global level.

The methodology of Global Education focuses on supporting active learning and encouraging reflection with active participation of learners and educators. It celebrates and promotes diversity and respect for others and encourages learners to make their choices in their own context in relation to

the global context. The primary aim of Global Citizenship Education (GCED) is nurturing respect for all, building a sense of belonging to a common humanity, and helping learners become responsible and active global citizens (UNESCO, 2015). GCED aims to empower learners to assume active roles to face and resolve global challenges and to become proactive contributors to a more peaceful, tolerant, inclusive and secure world. Education for global citizenship helps young people develop the core competencies which allow them to actively engage with the world and help make it a more just and sustainable place (Scheunpflug & Asbrand, 2006). It is a form of civic learning that involves students' active participation in projects that address global issues of a social, political, economic or environmental nature.

Modern times are characterized by complex world realities whatever this may entail, thus future citizens should be able to meet certain expectations. Everyone should actively participate and hold a supportive role in a developing society as a responsible citizen, something that can be attained through qualitative education. All citizens need knowledge and skills to understand, participate in and interact critically with our global society as empowered global citizens.

Education is now seen as an interactive process which turns the focus of learning onto Global Education with learners being in the forefront having to deal with complex global affairs so as to develop into active and responsible citizens. Through such an approach, stereotypes of xenophobia, racism, social discrimination and environmental issues are eliminated since learners become part of a common world learning to live harmoniously with others respecting and tolerating differences. Open mindedness is the successor of old traditional world views with modern learners expressing their voices into a democratic society. Learning practices and culture improve; educational learning communities develop, school identity changes, the role of parents and educators changes, teacher training on new educational data is promoted. To this aim, a number of stakeholders, such as ministries of education, pedagogic institutes, teachers, learners, parents, members of community –all related to Global Education– should cooperate.

## **2.1. Indications of Global Education in Greece**

### **2.1.1. *The Skills Labs***

In the case of Greece, the Greek Ministry of Education has recently introduced in the curricula the subject of 21<sup>st</sup> Century Skills Labs, which is an attempt to cultivate holistic skills to learners (Ananiadou & Claro, 2009) such as critical thinking, investigating skills, respect and tolerance to otherness, solving problems so as to prepare learners for an equal, democratic, socially cohesive world where they could be accepted as active citizens who hold a leading role in the politic scene and care for their local and global environment.

The *Skills Labs* is a new, innovative school module which focuses on the cultivation of soft and digital skills. Its main goal is the cultivation of skills necessary for a rapidly changing world. These skills include fundamental life skills related to health, safety and social interactions, as well as more elaborate skills related to education and life-long learning (Eurydice, 2022).

Particular emphasis is placed on the 4Cs of 21<sup>st</sup> century skills – communication, collaboration, critical thinking, and creativity – along with digital skills. The Skills Labs is designed to promote and bring into effect the UN Sustainable Development Goals and has gathered significant attention from international bodies such as UNESCO. It was awarded the Global Education Network Europe (GENE) Global Education Award (2020/2021). Sustainable development should be integrated into education systems at all levels of education in order to promote education as a key agent for change.

All European countries have gradually attempted to integrate this kind of education for the identity of global citizen into their educational systems despite the challenges and perplexities of the changing modern world. This has been attained through the introduction of appropriate projects in the formal educational system curricula.

### ***2.1.2. Environmental Education***

In the Greek educational system, the field of Environmental Education (EE) unofficially started in the 80s. Beginning in the 90s, the framework to promote EE in formal education was established, with teachers integrating EE into their teaching on a voluntary basis. Environmental Education (EE) was officially introduced in Greece with a law in 1990 for secondary education and 1991 for primary education. The aim of EE is to create awareness about the impact of environmental issues on the health and resilience of human societies and the effects of our civic and economic choices on the state of the natural environment (Orr, 1992). To meet these needs, the Ministry of Education compiled a Cross-Curricular Programme Framework of Studies to give directions for project implementation.

In Greek schools, Environmental Education has been integrated within formal programs in connection to the curriculum. In primary school, grades 1-4, environmental programs have been applied during project time, for example, teaching hours intended for cross-curricular projects. In grades 5-6, environmental education has been introduced through formal subject curricula, such as Greek language, maths, ICT, art, geography, foreign languages and more. In secondary education, with the voluntary participation of teachers, students and parental consent, programs such as after-school clubs have often taken the lead in implementing environmental activities and instruction.

Teachers submit their environmental program outline to the coordinators and programs are approved based on their educational and scientific merit. Teachers have the right to choose or co-decide with their students their project topic in relation to the local environment, the local needs and any immediate needs that arise. This approach in experiential learning focuses on problem-solving as well as project and inquiry-based learning (Moon, 2004).

In addition to schools programs, there are also Centres of Environmental Education in each of the 52 prefectures in Greece. These centers implement one to two-day programs for students, which consist of local field trips to forests, beaches, wetlands, cities and cultural and archeological sites. The Centres of Environmental Education also consider sustainable development when choosing field trip destinations. Teaching staff include both primary and secondary teachers of all subjects with a special environmental education background. Teachers get organizational support from municipalities and financial support from European Union (EU) funds.

Within the Ministry of Education, the Department for Sustainable Development, which plays an administrative role, issues annual recommendations regarding frameworks for environmental education programming (European Commission, 2019), financial support from Centres of Environmental Education and more. There are campaigns promoting environmentally friendly behaviors such as recycling. Each school decides how to address their ecological footprint. Several municipalities operate within regional and local levels to promote recycling, reusing, sustainable water usage and other sustainable practices through campaigns in cooperation with local schools.

### ***2.1.3. Global Citizenship Education***

The subject of civic and citizenship in Greece is taught across all schooling stages. In secondary school, the subject is offered with the aim of developing students culturally by strengthening their national and



cultural identity, increasing their awareness of the nature and role of various groups they belong to, their readiness to accept diversity by developing young people's Greek identity and awareness based on Greek national and cultural heritage. It is offered as a mandatory textbook-based and separate subject and was introduced in 2003. At that time, the Greek Ministry of Education attempted a shift in the area of education by promoting curriculum changes that reinforced the system's intercultural perspective and character. Under the General Principle of strengthening cultural and linguistic identity in a multicultural society, the Ministry initiated a series of reforms that integrated intercultural and European dimensions into the country's mainstream educational programme by promoting respect for linguistic diversity, encouraging multicultural methodologies and introducing the relevant subject of civics (Palaiologou & Faas, 2012).

However, research findings have shown that the civic and citizenship curriculum in Greece lacks global perspective, leading students to stereotypes or misconceptions about world cultures. Faas' content analysis of the Greek civic and citizenship curricula has indicated that the subject's textbooks place more emphasis on national topics in comparison to European and global ones. This emphasis on national topics is stronger in the subject of history, but it also prevails in the subject of civics and geography (Faas, 2011). In discussing this asymmetry between the national and the European topics included in the country's civic curricula, one could argue that the subject's textbooks were inadequate in promoting global education citizenship to Greek learners.

### **3. LIMITATIONS IN THE GREEK SCHOOL INSTITUTION**

Today's contemporary question is the type of citizens schools aim to shape and the type of society they prepare them for, how critically they can read the world and how they comprehend the meaning of right and wrong for a healthy society. To fulfill this role, national analytical curricula should be able to help. However, Greece's current educational system seems to embrace a primarily exam-centred approach (as predominantly demonstrated in Lyceum), which does not allow the space and time necessary for the multidimensional growth of its student community members. Schools actually focus on advancing knowledge and skills that are "useful" as preparation for the exams, then for the acquisition of formal qualifications (degrees, certificates) and lastly, so that all students might turn into professionals that can be successful in the global labour market. A school embracing such one-dimensional courses restricts a child's horizon, rather than broadening it up.

Over the previous decades in Greece, any attempts made to reform the educational system centered around exam performance, instead of focusing on the students' real needs. In recent times, it seems that teaching hours for the Civil Education subject (Economy, Political Institutions and Principles of Law, Sociology) are reduced in the Greek school timetable. These courses allowed students to connect to the world, process social issues and lay the foundations for active citizenship.

Educational upgrade now predominantly targets technology and digital skill acquisition. On the other hand, although the Ministry of Education has made a positive contribution to the compulsory education system upgrade, by incorporating the creation of Skill Labs in June 2020, this action is yet another one in danger of being sporadically dealt with as a separate entity, being often mistaken with Flexible Zone projects.

### **4. EUROPE'S SUSTAINABLE DEVELOPMENT: AGENDA 2030**

Responding to all these challenges, Europe has set an agenda of seventeen goals for sustainable development attainable by the year 2030 for a new, just and sustainable developmental process guar-

anteing balance between economic growth, social cohesion and justice as well as protection of the environment (UNDP, 2022). The members of the United Nations have worked hard on the formulation of this agenda in cooperation with citizens' communities, academic staff and organizations for a common goal. The Agenda 2030 is a continuum of the global agreement for the Developmental Goals of the Millennium with a view to eliminating extreme poverty and inequality.

These goals are not simply promises for the future; it is specific action plan on how we can really change the world by having everyone participate actively in this effort towards a common goal. Irrespectively of age and place of living, everybody could contribute to this effort without exclusions. The result would be a healthier, just world for the future generations to live in. Common problems around world countries arise and there has to be a common action plan for these problems to be addressed. The major concern is awareness of these problems on the part of citizens.



**Figure 1.** Sustainable Development Goals

## 5. SUGGESTIONS FOR SUSTAINABLE DEVELOPMENT IN GREECE

Awareness is then accompanied by action on the part of the conscientious citizens with a global mindset, in other words those learners prepared to be the active citizens of the future, who view reality from different angles and seize opportunities to construct the role that they can play in the evolution of humanity, who will take on responsibility and forge a common vision of a world that is fairer and more sustainable for all.

An example of this role could be the creation of an inclusive school for all with equal opportunities making it possible for everyone to learn to coexist with everyone else. A school of this kind would

allow all children to live and learn through their joint action and would be able to better meet the individual needs of each student separately. Such a school would embrace refugee or disabled children equally, thus achieving Sustainable Development Goal 4 (see Figure 1) which ensures inclusive and equitable quality education and promotes lifelong learning opportunities for all. However, this does not mean that there will be no obstacles to the learning procedure due to the increased number of students in a class with differentiated learning.

Within the framework of the 17 Sustainable Development Goals (SDGs), it would be useful to have subjects like climate change, poverty eradication, equal access to education, gender equality, justice and peace in school curricula across all grades, so that the young may develop critical thinking, learn to innovate and come up with solutions that will lead to more sustainable lifestyles. At a time when we are face to face with major global challenges, school could play a decisive role in empowering students so that they can make decisions and take on action that will positively contribute to environmental integrity, financial sustainability and social justice, both for the citizens of today and for the generations of the future.

It is imperative to draft a national plan for education's meaningful upgrade throughout all levels and areas. What we need is a realistic, feasible plan that will be formulated based on a constant, substantial dialogue with societal stakeholders, while also making room for the voices of teachers, parents and students to be heard. Curricula should be reformed so that all students can actively participate in a process which brings them into contact and triggers knowledge related to all subjects without making a distinction between important and less important ones.

Teachers' role should be reinforced which presupposes improvement of their working conditions in terms of the available materials and infrastructure. Ongoing education and vocational training (An, 2014) is yet another teachers' right that ought to be secured. Students of all genders need to be part of a school community providing them with the stimuli and opportunities that will forge their character and highlight their talents and skills, for them to safely enter society and discover ways to apply the knowledge they developed over the previous years. They need to acquire a comprehensive understanding of society beyond school, so that they can make informed decisions as to the future they wish to create.

## 6. CONCLUSIONS

In this chapter, the key idea of Global Education was stressed out with emphasis on Global Citizenship Education having been voted and applied throughout European educational systems. The same goes with Greece but still there are limitations in its application, as seen in the examples cited in the chapter. Europe has set an agenda of sustainable goals for the next seven years and educational stakeholders can really play a pivotal role in achieving some of these goals. Awareness and Holistic education are prerequisites for sustainable development with visibly successful results. Global education seems to be directly intertwined with a holistic approach to teaching and learning as well as world view, supporting a set of skills on the part of learners which allows them to think critically and face the world from another perspective. The importance of citizenship education was thoroughly discussed in the chapter with examples throughout the Greek national curricula and strengths or weaknesses that may arise. A qualitative Global Citizenship Education would pave the way for achievable sustainable goals both at a European level and on a Greek state basis. Thus, everyone would live in a fairer world, a world of peace and justice with active citizens participating in decision-making events both at a local and an international level.

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## 18. The concept of identity in classroom

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### ABSTRACT

Personal identity deals with philosophical questions that arise about us because we are human beings. In modern multilingual and multicultural classrooms the need for communication, expression, understanding, as well as for participation and integration is imperative. The classroom is a place where the personal identity of students is highlighted and shaped and identity texts are of particular importance for language and school integration and the use of multilingualism next to the school language and consequently the empowerment of children from socially vulnerable groups. We suggest identity texts as a tool for students' self-reflection, as through their creation, public disclosure and reflection on them, they can develop skills of self-awareness, understanding the other, multifaceted perception and fluid identities and therefore intercultural competence.

**KEYWORDS:** identity, classroom, multiculturality.

### 1. INTRODUCTION

Personal identity deals with philosophical questions that arise about us because we are human beings (or, as lawyers and philosophers say, individuals). This contrasts with questions about ourselves that arise because of our beings, conscious beings, material objects, or the like. Many of these questions come to almost all of us over and over again: What am I? When did I start? What will happen to me when I die? Others are more useless. They have been discussed since the beginning of Western philosophy and most important personalities had something to say about them.

Beyond philosophy, "personal identity" usually refers to qualities in which we feel a particular sense of attachment or ownership. One's personal identity in this sense consists of those qualities that one acquires in order to "define as a person" or "make it the person that is" and that distinguish it from others. Having an "identity crisis" means not being sure what the most characteristic qualities of a person are - the type of person, in some deep and fundamental sense, one. This "personal identity" is in contrast to the national or ethnic identity, which consists approximately of the ethnic group or nation that one takes to belong to and the importance one attaches to it. Depending on how the term is defined, it may also be possible for a property to belong to one's "identity" without actually having it: if I am convinced that I am Napoleon, being an emperor could be one of the qualities that are central to the way I define myself, and thus an element of my identity, even though my belief is false. Who am I; question –sometimes called characterization question (Schechtman, 1996)– is what determines one's personal identity in this sense (Glover, 1988; Ludwig, 1997).

What is it like to be a person, as opposed to a non-person? What do we have people who do not have? More specifically, we can ask at what point in our development from a fertilized egg is there a person, or what would a chimpanzee or a Martian or a computer need if they could ever be. The most common answer is that being a person every time is to have some special mental qualities then



(Baker, 2000). Others suggest a less direct link between personality and mental qualities: for example, being an individual can acquire these qualities (Chisholm, 1976) or belong to a species whose members usually have them when they are healthy and mature. (Wiggins, 1980).

What does it take for a person to stay overnight - to continue to exist and not cease to exist? What kind of adventures is it possible, in the broadest sense of the word “probable”, to survive and what kind of event would necessarily take your existence in the end? What determines which past or future you are? Suppose you point to a child in an old classroom photo and say, “This is me.” What makes this one of the other? What about the way he relates to you then as you are now that makes you? For that matter, what happens to someone who existed then is you? This is sometimes called the issue of personal identity over time. This is because it is a matter of whether the older and the later are one or two - that is, if they are numerically identical. One answer to this is a description of our obsession. Historically this question often arises from the hope (or fear) that we could continue to exist after our death (as in Plato’s *Phaedo*). Whether this can happen depends on whether biological death necessarily puts an end to one’s existence. Imagine for a second you were transposed into the karmic driven world of Earl. How should this being relate to you as you are now in order to be you and not someone else? What should the Higher Powers do to maintain your existence after your death? Or is there something they could do? The answer to these questions depends on the answer to the persistence question.

According to Smith et al. (1999), a person’s identity has a significant impact on how they perceive other people, their self-esteem, self-confidence, aspirations, motivation, and effort put into various aspects of their life. At the point when schools don’t forcefully attempt to work with positive personalities by the entirety of their understudies, including their racial character, there are ramifications. Stereotypes and low teacher expectations affect a growing number of immigrants from all over the world and many diverse native-born students of color who attend our public schools. According to Altschul et al. (2008), such bias increases students’ concerns about social acceptance and academic performance inadequacy. According to Bowman (2001), identity development can have an impact not only on how well minority students do in school but also on the nature and severity of conflicts with other students as well as their academic performance. Individuals’ level of resiliency in the face of adversity and the personal strengths they develop or expand may have a significant impact on their personal identity or result from it. Students’ racial/ethnic identity is partially reflected in their choices, priorities, and perceptions of personal opportunities and potential (McHatton et al, 2007. Akom and Noguera, 2000).

## **2. RACE AND PERSONAL IDENTITY**

Attitudes, actions, and a sense of familiarity with one’s own race as well as that of other racial groups reflect the identities of diverse stakeholders in the school community. A person’s overall identity is heavily influenced by their racial identity. Ponterotto et al. claim that (2006), the process of developing a White racial identity involves accepting one’s own unearned privilege in society. Sue and Sue (2013) declares finding a sense of peace with unmerited honor should be trailed by a legitimate self-assessment of one’s job, dynamic or pas-sive, in keeping up with the bigoted the norm. The need for greater self-awareness of one’s racial identity and its possible connection to educational opportunities and outcomes may be strongly opposed in any given school community. The personal characteristics of denying or being oblivious to White privilege, avoiding discussions about racism, and

not analyzing what personal responsibility they might have related to their own racism comprise the lowest four levels of the White racial identity model (WRIM) developed by Helms and Cook (1999). The opposite end of the Helms and Cook WRIM is referred to as “autonomy,” and it is characterized by refraining from participating in racial oppression, giving up White privilege in some instances, and participating in activism against numerous forms of oppression. According to Helms (1990), White people can overcome their past of ignorance and superiority by recognizing and opposing institutional and cultural racism as well as abandoning individual racism.

Likewise, Howard (2000) has fostered a model of White personality with three unmistakable directions: The modalities of growth for fundamentalist, integrationist, and transformationist include thinking, feeling, and acting. Similar to Paulo Freire’s *Pedagogy of the Oppressed* (1973), a central theme of his work is that White dominance has been and continues to be a powerful presence in the educational process. In terms of denial and avoidance when it comes to dealing with racism, the belief in White superiority, Eurocentric teaching approaches, the color blind ideology, and the commitment to assimilation, for instance, Howard’s fundamentalist orientation is comparable to the lower levels of Helms’ WRIM. Howard asserts that powerful experiential catalysts are required to dissuade individuals from a fundamentalist orientation. Howard’s integrationist perspective has a number of characteristics, including an acceptance rather than acknowledgement of White dominance, a view of injustice as the victim’s problem, a refusal to question Western hegemony or the necessity of major shifts in White consciousness, and a lack of comprehension of the systemic nature of social inequality. White educators may require assistance in critically determining whether they hold any of these beliefs and, if so, the ways in which they affect the education of historically underserved students of color. According to Howard’s model, individuals who exhibit a transformationist orientation are able to acknowledge White complicity in oppression and dominance. They are both self-reflective and antiracist, have given up on the idea of White supremacy, do not consider differences to be a threat, and are guided by respect for cultural and racial differences. White educators with this orientation may require legitimacy, empowerment, and support in their work with peers at the other end of the WRIM in order to take on a more visible shared leadership role in their school communities.

There is evidence that some Whites skip some of the stages described by Helms and Howard, respectively. Nevertheless, the reader should consider whether the phenomenon and significance of racial identity to achieving equitable educational outcomes receive sufficient attention. Cultural courage, as discussed in this guide, must be embraced in order to assist in resolving a situation in which educators knowingly or unknowingly exhibit a number of racial identity-related symptoms that hinder the provision of equitable educational opportunities and outcomes. In order to achieve cultural democracy and social justice for all, one’s level of racial identity can either help or hinder “walking the equity talk.” Some of the institutional biases and barriers to high achievement that those whose racial identity makes it difficult, if not impossible, to support cultural democracy and actively oppose cultural hegemony may unwittingly perpetuate will be documented in this guide.

In the 21st century, insidious covert and overt educational practices that help perpetuate the alienation of students of color and White privilege in society and schools may result from disagreements between educators with vastly different racial identity levels. The relationship between educators’ racial identity and whether they prioritize providing equitable learning opportunities is likely to be inextricably linked, just as the identities of historically underserved students and their achievement performance are inextricably linked. According to Zirkel (2008), student and teacher identities can have a significant impact not only on student motivation to succeed but also on interpersonal and

intergroup dynamics. Students who have been historically underserved and are not supported in developing positive racial identities may be much less motivated to do their best in school or to see a connection between what happens in school and their everyday lives, especially if they are not empowered to fight the conditions that keep them in subservient roles.

### 3. IDENTITY TEXTS

In modern multilingual and multicultural classrooms the need for communication, expression, understanding, as well as for participation and integration is imperative. Educational practices, which create the conditions for the production of student / three texts, expressing their multifaceted identities and highlighting complex sociolinguistic realities, can be valuable educational tools, with significant benefits for both self-image and the empowerment of their identities. as well as for their academic learning in school (Cummins & Early, 2011). In this context, the identity texts (Cummins & Early, 2011) are proposed as a tool for empowerment and equal participation and integration of students / immigrants or refugees with experience, through the promotion, understanding and appreciation of their own linguistic and cultural elements, their own funds of knowledge (González, Moll, & Amanti, 2005).

Identity texts are defined as “children’s products, creative works and productions that take place within the pedagogical space, orchestrated by the class teacher” (Cummins & Early, 2011, p. 3). They function as mirrors that reflect the identities of students in a positive way (Cummins & Early, 2011, p. 3). Through them, children can express their experiences, thoughts and experiences with their own voice, their own narratives and highlight aspects of their reality. Identity texts can be oral, written, visual, musical, dramatic or multimodal, through which children express their identities. They provide space for the expression of emotions and experiences and do not focus only on the cognitive part or the linguistic part of learning. They are thus a practice of holistic learning, which recognizes the role of the emotional, social and cultural dimension, involving in the learning process elements from children’s lives, experiences and cultures.

Characteristic identity texts have been published in the multilingual magazine ‘Polydromo’ since 2009, in order to highlight their experiences in relation to languages, their thoughts, to bring to the surface elements of their sociolinguistic reality, which teachers can use pedagogically. Identity texts can also be language portraits of multilingual students / three (Busch, 2011) such as those presented in research work in elementary school (Gkaintartzi & Tsokalidou, 2018) where children visualize their language repertoires by drawing languages they speak, those who matter to them and who also want to learn. Students also create their own portraits by presenting elements from their sociolinguistic realities, with images, written texts, photographs, drawings drawing from all their linguistic resources to express experiences and narrate through multimodality. The topics used have meaning and significance for the students and enable them to express their own thoughts and experiences, thus resisting the ‘invisibility’ of bilingualism and their identities (Gkaintartzi, Kiliari & Tsokalidou, 2015). Tsokalidou, 2012). Furthermore, the term ‘identification texts’ (Kombiadou & Tsokalidou, 2014) has been proposed in the literature for texts that were not produced by the same person as the one identified with them, such as a work of art, a letter, a photograph. etc. These can be both identity texts for their creators and identification texts for other people.

Approaching their pedagogical utilization, the identity texts can be utilized in the classroom as a pedagogical tool for:

- exploring and sketching the socio-linguistic profile of children,
- connecting the new knowledge of the school with the already existing knowledge and experiences of the children,
- connecting the school language with the languages and the linguistic varieties of the children through the interlinguistic language (Tsokalidou, 2017. Garcia, 2009),
- empowering children with immigration or refugee experience, giving voice and value to their own narratives, experiences, thoughts,
- involving students' emotional, social and psychosocial development in learning and
- encouraging parental involvement in education, which is a very key factor in school learning and the integration of students / three.

Identity texts are bridges between the school and the realities of the students / three, a multifaceted means of expression and understanding, a channel of communication, a tool for empowerment, as well as a relationship and identification. The multilingualism of students / three can be highlighted and used in practice through linguistics, in which languages, linguistic varieties and types of speech interact beyond the monolingual boundaries of the official school language (Tsokalidou, 2017). Identity texts create the conditions for interlingualism in the classroom, encourage it and highlight it (Tsokalidou, 2017). The multiple benefits of identity texts in the classroom concern the empowerment and support of both students / teachers and the teachers themselves, who know, understand and connect with their student audience but also with the families and communities of the children, who are also involved in their creation and / or public promotion and dissemination.

It seems that identity texts are of particular importance for the linguistic and school integration and utilization of multilingualism next to the school language and consequently the empowerment of children from socially vulnerable groups (Cummins, & Early, 2011). The personal “narratives” of the students / three create a place of “common” experiences with the aim of greater involvement of those involved –teachers and students– for intercultural action, exchange and communication. Through this process, the students as a whole are empowered, as well as the teachers, who as guides and researchers know, understand their student audience and consequently intervene, as well as the parents and communities of the students. / three participating in their diffusion. The contribution of identity texts to the cohesion of the classroom is highlighted through the recognition and appreciation of diversity, the fight against racist attitudes and the cultivation of intercultural understanding of all children. They are a field for the meeting, the co-creation but also a means for the connection of children and teachers, the strengthening of the pedagogical relationship –based on essential, equal communication and trust– between children and teacher but also between children.

#### **4. EDUCATION AND NATIONAL IDENTITY**

Perhaps the most important role in the reproduction of national identity is played by education, especially through the so-called tuition courses: language, geography, history. Through language courses, homolingualism is imposed on the community, with the inclusion or elimination of different dialects or languages. With geography, the young person is placed in space and knows the national territory that is considered the “cradle”, while with history the “national memory” is shaped.

In addition, parallel activities, such as school holidays, anniversaries, excursions, etc., contribute to national education, which is a fundamental institution of modern states, as it identifies the cultural

with the political dimension of the nation. Through the national school system, then, as Avdela (1998: 44) notes, “a romantic conception of the nation as a ‘natural’ entity is reproduced, based on a ‘national narrative’ that recalls common memories and common characteristics.”

Marc Ferro (1986: 7) characteristically wrote that whoever controls the past can define the present. Therefore, each institutionalized power produces its own history, which reproduces ethnocentrism through the belief in law and order, the belief in the unity of the national group and the expected path to progress. This shape leads to the homogenization, necessary for the formation and maintenance of the modern nation.

Historical events do not change, but the perspective from which they become visible each time changes. Both the evolution of history as a science in itself and the point of view imposed by the educational system contribute to this. The history we hear as children marks our life, especially the vast majority of the population that after school are not given the opportunity to reflect on history and the creation of their identity. Thus, public opinion considers as “natural” and “real” facts the value judgments or prejudices that were adopted at a young age. In order to create the feeling of “meeting” there must be the “other”, the different, who does not belong to the group. As a result, all school stories to a greater or lesser extent come to emphasize the differences with the “outside”, the “around”, the “others” and the similarities to the “inside”, to the ethnicity. In this way, the similarities with those around them as well as the differences within the national team are lost.

Nowadays, an attempt is being made to create a European, supranational identity, by eliminating negative stereotypes among other European peoples. But the teaching of European history is not considered to be able to replace the national.

At the same time, the concerns raised by the theorists of the “new history”, gave the opportunity to the educational systems to emphasize the social problems instead of the achievements of the heroic persons, as well as the common elements between the peoples despite their differences, so that the young become more open to the “different”. An attempt is made to promote an open conception of science, which does not accept irrevocable truths, and to develop a pluralistic teaching of the past (Bentura-Koulouri, 1994).

Moreover, the modern reality that has made Europe a meeting place for migrants from all over the world, migrants who are already in Europe for a second or even third generation, can hardly be reconciled with the older view of the teaching of history in favor of nation, one state, one people” (Slater, 1995; Coulby and Jones, 1996).

## 5. CONCLUSIONS

The classroom is a place where the personal identity of students is highlighted and shaped and identity texts are of particular importance for language and school integration and the use of multilingualism next to the school language and consequently the empowerment of children from socially vulnerable groups (Cummins, & Early, 2011). The personal “narratives” of the students / three create a place of “common” experiences with the aim of greater involvement of those involved –teachers and students– for intercultural action, exchange and communication. Through this process, the students as a whole are empowered, but also the teachers, who as guides and researchers know, understand their student audience and consequently intervene, as well as the parents and communities of the students. / three participating in their diffusion. Identity texts are a field for the meeting, the co-creation but also a means for the connection of children and teachers, the strengthening of the pedagogical relationship



–based on essential, equal communication and trust– between children and teacher but also between children. Finally, in the context of the studies of the pedagogical departments, the identity texts can be used in the education of future teachers, so that the students can effectively face the very demanding educational and social reality in the classroom with the large number of children with different language, social, economic and cultural background and lack of resources for education. The university education and training of future teachers should create the conditions for research and reflection in the educational process and acquaint them with the complex reality of the school. Prospective educators need to know the environment in which they will work, in all its forms, with all its peculiarities and requirements (Sinclair, Dowson, & Thistleton-Martin, 2006).

We suggest identity texts as a tool for students’ self-reflection / three –future teachers–, as through their creation, public disclosure and reflection on them, they can develop skills of self-awareness, understanding the other, multifaceted perception and fluid identities and therefore intercultural competence (Magos & Simopoulos, 2010). In addition to creating their own texts, identity texts of other authors can also be used, such as Gasmel Kaplani (2010), Amin Malouf (2000), poems by the Australian poet P.O. (1996) and works of art (Tsokalidou, 2017), in order to function as a trigger for reflection, critical dialogue, deeper acquaintance with oneself and a meeting with the ‘Other’. Such identity texts can be identification texts for students (Kombiadou & Tsokalidou, 2014). Through their utilization in the education of the students of the three pedagogical departments –in relevant courses but also in the practical internship– the students are given the opportunity to become familiar with their multidimensional use, to understand their importance and are able to use them as a pedagogical tool in educational practice.

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## **New Trends in Research in Education, Philosophy and Communication / Nuevas Tendencias en investigación en Educación, Filosofía y Comunicación**

This book contains the result of innovative studies in Education, Philosophy (of language) and Linguistics, Communication, and related areas. This book brings a wealth of interdisciplinary and highly valuable insights into the true ocean of knowledge. This book contains studies that manifest the fascination for knowledge, the interest in knowing more and communicating it to society, so that it can improve. As Ramon Llull (Majorca 1232 -1315) taught us in his *Llibre de Meravelles (Book on Marvels)*, the marvel of knowledge, of the new and unknown is seductive and can bring us close to happiness - the main carácter who wanders through the world is called 'Felix', 'Happy'. Felix followed the advice of his father; in Book 8, ch. XI, on the "Pleasure experienced by a man from knowledge".

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