COMPUSEL

Computational Thinking in Enhancing Primary Students' Social-Emotional Learning Skills

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Social Emotional Learning Skills & Computational Thinking

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INTRODUCTION

In today's world where technology has penetrated almost all spheres of our lives, automation systems and robots have become alternatives to humans in many business sectors from agriculture to industry. Many factories have already automatised and started to employ a minimum number of people. This has also led to the emergence of new jobs in the labour market such as product owners, customer success specialists, sales development representatives, behaviour health technicians, etc., highlighting both cognitive and affective skills of humans in business interactions. Therefore, social-emotional learning skills have become prominent in terms of increasing employability and facilitating social relations, but in reality, these skills are always needed to maintain strong and healthy relations with others, provide resilience in difficult conditions and deal with challenges in real-life situations.

Social-Emotional Learning (SEL) refers to the concept of developing social-emotional skills to make students more effective in learning (Guerra & Bradshaw, 2008). Therefore, SEL is the ability to be aware of one's own emotions, manage emotions, solve problems, build relationships and empathize (Waltz, 2013) and it is of great importance in students' ability to function in school settings besides in real life. A structural approach to fostering SEL skills can facilitate teachers to help students attain these skills more effectively. Thus, the integration of computational thinking comes into view promisingly, referring to “the thought processes involved in formulating problems and their solutions so that the solutions are represented in a form that can be effectively carried out by an information-processing agent” (Wing 2011). It involves the skills which help students to solve hard problems of all kinds. These skills are named decomposition, abstraction, pattern recognition and algorithmic thinking. Computational thinking, as a problem-solving process, can be used in any discipline (Yadav, Mayfield, Zhou, Hambrusch & Korb, 2014). Supportingly, Bundy (2007) states that using computational thinking to solve problems in other disciplines was a success and thinking computationally is an essential skill. Thus, fostering social-emotional learning skills by employing computational thinking skills step-by-step will facilitate students to make progress more consciously.

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Since education must cultivate the student as a whole, it is crucial to improve students' SEL skills. Students who have developed SEL skills are equipped with the knowledge they need to achieve their goals as well as discover the ways of accomplishment. Through integrating computational thinking into social and emotional learning in education we will humanise data as well as 21st century problems by employing essential social and emotional learning skills.

Aims and objectives

COMPUSEL aims to improve the SEL skills of primary students and train primary school teachers for this purpose. As COMPUSEL, we will develop a curriculum and digital stories including examples of different social and emotional challenges to foster self-awareness, self-management, social awareness, relationship or responsible decision-making. Through integrating computational thinking skills and digital stories in teaching SEL, we aim to teach children to structure problems to solve. Accordingly, this will help students to tackle complex challenges in all aspects of their lives.

The other objectives pursued by the project practice are as follows:

a- Supporting teachers to help their students regarding full social inclusion

b- Supporting teachers to help their students strive for success by developing their SEL skills

Expected impacts of the project

This project will primarily have an impact on primary students by enabling them to learn thinking strategies and tackle problems regarding SEL skills through thinking in new ways. Accordingly, in this project, with computational thinking, students will find an opportunity to navigate complex problems regarding SEL.

The project will also have an impact on teachers. The project will raise awareness among teachers regarding ways of developing students' SEL skills. The roles of teachers and schools are also changing, and so are expectations about them. Teachers have been required to implement innovative teaching methods in their classrooms. Computational thinking to be administered in this project is not just a foundation for technology-

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oriented skills like coding, but it is instead a vehicle to generate social and emotional attitudes needed for students to be future-ready. Accordingly, teachers will be supported with this project to use innovative approaches (such as the use of computational thinking as well as digital stories).

The curriculum will be open to access so everyone in Europe will be able to reach the content online. Interested educators will be able to use the curriculum in their school activities. This project practice will ensure the improvement of the teaching skills of the interested teachers in this regard.

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1. SOCIAL & EMOTIONAL LEARNING

1.1. Definition

The concept of social-emotional learning emerged concerning learning theories such as Multiple Intelligences (1983) and Emotional Intelligence (1995). Social-emotional learning refers to the process in which individuals equip themselves with the key knowledge, skill, and attitudes to identify and regulate emotions, attain goals, improve empathy, establish and sustain positive relationships, and make responsible and caring short-term and long-term life decisions (CASEL, 2020). In other words, SEL is conceptualized with the key competencies of self-awareness, social awareness, self-management, relationship skills, and responsible decision making. Accordingly, self-awareness involves identifying and recognizing one's own emotions, recognizing strengths and weaknesses as well as having accurate self-perception. Social awareness is defined as the ability to act with empathy, appreciate diversity and respect others. Self-management involves impulse control, stress management, self-motivation, discipline, goal setting and organizational skills. Relationship skills are explained as the ability to build and maintain healthy relationships with people from a diverse range of backgrounds, communicate, build relationships, work cooperatively, ask for help, negotiate, and conflict management. Responsible decision making involves problem identification, situation analysis, problem-solving, evaluation and reflection, and personal, moral, and ethical responsibility. These competencies all together contribute not only to succeed in school or work but also to the physical, psychological and interpersonal well-being of individuals (AEI/Brookings Workgroup on Poverty and Opportunity, 2015). In today's world, SEL has become a significant focus in education. There is growing interest in addressing SEL as a part of school programs.

Theoretically, SEL have a strengths-based perspective and view development through the lens of opportunity (Ross & Tolan 2018). In terms of theoretical linkages, SEL is focused on specific skill promotion and behaviour change through teaching and practicing, often in structured classroom settings (e.g., Social-Cognitive Theory, Problem Behaviour Theory, Social Learning Theory, Health Belief Model; Payton et al., 2000). Otherwise, SEL tends to focus on social and academic outcomes in developmental territory in practice, begging for an empirical investigation of their potential strengths, pitfalls, and unique contributions with specific aged populations. A more detailed review of these approaches and a call for empirical work is outlined in a recent review (Tolan, Ross, Arkin, Godine, & Clark, 2016).

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1.2 Fundamentals of SEL

1.2.1. Self-Management

According to CASEL, self-management is the ability we have to regulate our emotions and behaviour efficiently in order to achieve our goals. This includes the skills of stress management, the delay of gratification and motivation to achieve these same objectives, both personal and collective. MCIU's Office of Professional Learning believes that social emotional learning (SEL) is the way to develop skills and predispositions that will promote self-care and caring for others so that positive connections and contributions are made within our educational communities

https://casel.org/sel-framework/

Summarizing, we could define Self-management as the ability to manage one's emotions, thoughts, and behaviours with efficiency in different kinds of situations and contexts, and to accomplish goals and aims. This embraces the capacities to delay pleasure, manage stress, and feel motivation and develop activity to realise personal and collective goals.
Such as:

- Dealing one's emotions
- Recognizing and use of stress regulation strategies
- Exhibiting self-control and self-motivation
- Setting personal and collective goals
- Using planning and organizational skills
- Showing the courage to take initiative
- Demonstrating personal and collective agency

Check out this information from FBS learning media for more information.

1.2.2. Self-Awareness

Self-awareness is characterized by a multiplicity of perspectives (i.e., Sutton, 2016; Taylor, 2006; Williams, 2008). Generally, in psychology the most often self-awareness is described as one's ability to think in relations and being able to define feelings, thoughts, and/or actions. In accordance with Flavian (2016), the term "self-awareness" as an overall concept includes many sub-concepts. These involve self-esteem, self-concept, self-description, self-control, self-evaluation, self-image, self-perception, self-presentation, self-reflection, self-knowledge, and self-understanding. Another author (Cook, 1999) mentions attitudes, prejudices, beliefs, expectations, affections, countertransference's, personal considerations, and requirements, skills, and modifications as components of self-awareness.

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Similarly, in Social and Emotional Learning (SEL) skill of self-awareness means the talent to perceive other people emotions, thoughts, and set of values and how they command behavior within varied contexts. What seems important, this definition includes also the scope to recognize one's strengths and conditions with a constituted sense of life goals. Self-awareness is treated as one of the core SEL competencies (CASEL's framework).

As Steven and Howard (2011) claim, people with appropriate self-awareness people can predict the consequences of their own behaviors. They are able to realize the consequences of their decisions which is related to emotional intelligence. And the first track of emotional intelligence competence is to understand oneself and competence to change. The same authors also emphasize, that self-awareness also include the way how people recognize thoughts and feelings as easy as possible defending themselves and defending her/his opinions (what is called assertiveness), direct and control themselves. In addition, the author underlines the ways how to be independent in recognizing and accepting the shortcomings and advantages themselves to full realization of potential, and satisfaction. Carver (2003) additionally, presents self-awareness as the skill to pay attention on it and on oneself, which – in his opinion - influences the possibility to evaluate oneself in all aspects of life.

According to Goleman (Goleman et al., 2002), the father of emotional intelligence, there are three features which enable recognize the process of self-awareness. This process includes emotions, self-confidence, and confidence. Thus, in the light, self-awareness is the skill which enables recognize and decide about feelings. In addition, emotional intelligence influence on realization of emotional existence. Thanks to it, people perceive their strengths and boundaries which help them express, control, and communicate.

Below there is an infographic (Fig. 1) that presents basic skills relevant to self-awareness. These are identifying emotions, self-confidence (which includes having a detailed self-perception and recognizing its strengths, growth mentality (which means the ethos that each person can change and grow), and self-efficacy (being a kind of academic self-esteem), as well as empathy.

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Figure 1. Self-awareness basic skills.

Source: https://www.panoramaed.com/blog/simple-guide-self-awareness

One of the dimensions of self-awareness is educational and school self-awareness. When it is applied to learners, it means the learner's perception of his or her own ability to perform duties and tasks related to education. It depends on their evaluation of their own results, successes, and expectations.

In turn, the teacher's self-awareness involves a more accurate understanding of how students affect teachers 'own emotional processes and behaviors and how teachers themselves affect students, as well (Richardson & Shupe, 2003; Underhill, 1991).

Depending on their own experiences as a teacher (such as expectations, evaluation, and support of the environment, comparing oneself to others, the effort put into working with students, and obtained results), the teacher creates a self-image. This image can be positive or negative. A positive image is associated with

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increased motivation, interest, and confidence in the face of challenges. The negative image is related to personal, cognitive, and motivational resources to meet the challenges of working in the teaching profession.

Zakaria and Herawati (2018) define teachers' self-awareness as understanding their own actions and the way how teachers affect themselves and other people. They state that self-awareness involves also a more accurate understanding of how students affect teachers' actions and how teachers affect students as well. Thus, self-awareness seems to be particularly important for teachers who work with students in the classroom

1.2.3. Responsible Decision-Making

As one of these key competencies highlighted in SEL, responsible decision making refers to the ability of individuals in making considerate and productive decisions by taking the ethical and safety concerns into account and assessing the pros and cons of one's action for the well-being of oneself and others (CASEL, 2020). In other words, responsible decision making involves detecting problems, exploring solutions, examining choices, and reflecting on the consequences (Sprenger, 2020). Welbourn (2017) also identifies responsible decision making as predicting the outcomes of our decisions before making them. Payton and colleagues (2000) also described the components of key competencies in SEL and explained that responsible decision making involves identifying and solving problems, analysing social norms as well as adaptive goal setting. They identified these terms in more detail. Accordingly, problem identification is referred to one's capacity for recognizing a situation that necessitates a solution or decision and evaluating the related threats, obstacles, and resources. Social norm analysis is defined as one's capacity for being critical of social, cultural, and media messages that are linked to individuals' behaviours and social norms. Adaptive goal setting was explained as one's capacity for determining goals that are positive and realistic while problem-solving was defined as one's capacity for producing, applying, and assessing positive and informed solutions.

Thanks to its components, SEL contributes to not only personal success and well-being, but also school climate, effective and constructive relations, and equating learning opportunities (Jagers, Rivas-Drake, & Borowski, 2018). Therefore, it is vital to work on strengthening the competencies of SEL among students. Especially, considering that each day students make several decisions which may affect both them and those around them positively or negatively, students must be provided with opportunities to improve their decision-making skills (Sackstein, 2021).

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Although most teachers highlight the importance of SEL and schools' vital role in developing the competencies of SEL, many of them indicate that they have a lack of confidence in how to help their students acquire these competencies (Main, 2018). First of all, as indicated by Zins and Elias (2007), the acquisition of these competencies mostly depends on how well the learning environments are caring, supportive, and well-managed. In these environments, students are encouraged to experience new learning activities, benefit from opportunities to focus on personal needs and issues, and maintain positive relationships, which altogether make them feel safe and secure while making decisions and reflecting on them (Zins & Elias, 2007). Moreover, Billy and Garriguez (2021) provide their suggestions for educators in their daily practices to improve SEL competencies. Considering responsible decision making, they highlight the importance of enabling students to experience autonomy through appropriate instruction, reflection activities, and peer mediation practices. Furthermore, Sackstein (2021) recommends integrating decision-making skills into the lessons, providing experiences to help students to monitor their learning processes, and encouraging students to reflect on their choices, the consequences of their choices, and how to make better decisions to improve responsible decision making

1.2.4. Relationship Skills

Teaching Relationship Skills In The Elementary Classroom

The Collaborative for Academic, Social, Emotional learning (CASEL) has created a social emotional learning (SEL) framework, which contains five core competencies- one of which is Relationship Skills. In the social-emotional learning curriculum teaching relationship skills is a necessity. Some of the most important inquiries that arise in the teaching process are the definition of the relationship skills, the reason for their importance, the way to encourage the improvement of the students' relationship skills, and the importance of giving information about relationship skills to the families.

Relationship skills are defined as the ability to establish and maintain healthy and rewarding relationships with individuals and groups of people. The characteristics of a person that has relationship skills are their abilities to communicate clearly, to listen attentively, to cooperate with others, to abstain negativity in social frame, to arrange through conflict in a constructive manner, and to seek and offer help when is needed.

Relationship skills include:

- Contact with others and creating friendships
- To share our thoughts and our feelings with an appropriate way
- Communication with an effective way
- To create an to develop positive relationships

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- Demonstrate cultural acceptance
- Working in teamwork and collaborative for problem-solving processes
- To resolve conflicts with a constructive way
- Positive presuppositions when you Approach relationships.
- To resist in negative social pressure and aggression
- To resist at stereotypes
- To stand up for the human rights of others
- Show leadership in groups, facilitation and group dynamic

The importance of Relationship Skills.

Skills are very important because people need them throughout their lives consistently. Relationship skills can enhance the ability of students for better communication and to connect people in a healthy way. Relationship skills can be taught because they are not innate. Many students experience difficulties, so it is important to be tough to learn, to develop and maintain healthy relationships.

Overall, research reveals that students with social and emotional skills perform better academically, have stronger relationships with peers and teachers, experience greater well-being, and engage in less risky behaviour. In addition, SEL -life skills positively impact education, employment, and mental health outcomes into adulthood.(casel.org)

More about Relationship Skills

More information to know before starting teaching relationship skills at school.

- **Communication**

Effective communication is very important for developing relationship skills. Effective communication involves verbal and nonverbal skills. A huge part of communication has self-awareness skills, because for effective communication we have to speak with a clear voice, to convey ideas with a clear way, to understand the body language, the facial expressions, and all gestures. When we communicate, it is important to understand how all those verbal and nonverbal skills contribute to send a message and being conveyed.

- **Relationship-building**

Students must be able to create and keep healthy relationships inside and outside of school. All SEL competencies and skills come together to create students who know how can to create a new relationship, how to be a healthy friendship and how to build strong relationships.

- **Social engagement**

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Social engagement is very important to be able someone to resist in social pressure, as well as the ability to work with other people with a productive way. It also very crucial to know civic responsibility and to teach students about community service and how to interact with a proper and meaningful way with their community.

- **Teamwork- participating in group activities**

Teamwork for students is important, to be able to work together in a diverse group of students, peers, people who are similar and different than them. They have to know how and when are able to negotiate a conflict with a constructive way, to listen actively and clearly to communicate their ideas, to cooperate with others, and to offer help when needed.

Strategies for Helping students to Improve their Relationship Skills

Below are 5 teaching strategies for helping students improve their relationship skills.

1. Group activities

The first strategy for teaching relationship skills is group activities, which will help students to practice the skills necessary to work on a team- group. Teachers have to observe their students, to see how they manage conflicts, hear each other's ideas, and responding politely. After that observation, they have to reteach the relationship skills that they need practice with their students with specific group activities.

2. Changing seats

Give students the opportunities to sit and talk to new classmates, to form new relationships. You can change inside class where your students sit for their independent workspace. It helps a lot for creating new interaction inside class, students to now better other kids, not only their friends.

3. Role playing

Role-plays are forms of experiential learning that require students to act out and improvise roles, based on given cues. The scenario in the role play can be fictional or a simulation of a real situation. Role play is a great way to practice relationship skills prepares kids to handle conflicts and practice conflict-resolution skills.

4. Read endless stories

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Reading endless stories for children are a great way for students to see how the characters solve a conflict. Pause to talk about what the conflict is, what caused the conflict, who was involved, and how they chose to solve the conflict. Discuss whether your students agree with how they solved the conflict.

5. Playing games

Another strategy for teaching relationship skills is playing games for promoting active listening skills which are an important part of communication and help relationship building.

Communication with students' families

Teachers can share with their students' families before and after they introduce and teach relationship skills in class. This strategy helps a lot to have a common implementation these communication skills to the kids**.**

Some advice for parents

1. Create opportunities for your child to build relationships

It is very important to create regular opportunities inside family, Having specific play dates, doing some activities together with your children, or having time with other family members. Spending time with your children will facilitate your relationships and you can observe how your child interacts with peers and adults.

2. Have your child turn to peers

When your child is playing with other children, ask your child to ask his peer and wait for his questions to be answered. If they also wonder how to play a certain game or how to use it in a certain way, have them turn to a peer if they come and ask you how to do it.

3. Talk to your child about relationships

Talk to your child about your relationships and friendships and how you maintain them.

Also talk about conflicts that arise in your day and how you have learned to resolve conflicts in the environment with people from your work and with people close to you. Discussions and modelling make relationship building and conflict resolution more real for your child when they see real examples from their role models.

4. Read them stories

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Read your child stories for active listening and promote discussion. For interact with your child pause during the story to ask what is happening in the story. You can ask them questions for the characters of the story, what are the possibilities solving problems and potential conflicts. You can continue to discuss the book after reading with your child and ask them what had happened in the story, to summarise and keeping positive attitudes.

5. Teach to your child manners

Manners are very serious life skills and will help your children to develop healthy relationships with their peers and respect for others. We have to tech manners and saying please and thank you to our kids!. We need positively to reinforce our children using manners by giving them compliments when it happens.

A Holistic approach for SEL - principles and key features:

- Research makes clear that the more holistic a community's approach to SEL, the more benefits there are for children. Positive relationships support learning and are characterized by consistency, trust, care, and responsiveness (Zins & Elias, 2006; Osher et al., 2018) and give the feeling of connectedness, the ability to manage emotions, behaviour and cognition (Bronfenbrenner, 1979; Murray et al., 2015; Osher et al., 2018)
- A Vision for a whole school community approach: students, parents, school leaders, teachers, counsellors, supervisors, psychologists, social workers, and support staff.
- Relationships matter: Relationships support teaching, learning, and social development for all. Building relationships and fostering a sense of belonging are characteristics of an SEL program.
- Holistic and clear leadership guidance: A SEL program includes everything for the leader needs for a successful implementation in the school, step-by-step guidance and resources to help the responsible plan for, launch, and support the implementation process.
- A unique code on discipline: A focus on the school community, not compliance. The powerful is insight when students have strong relationships within their school, they are close to acquiring self-discipline and feeling a sense of responsibility to themselves and to all others.
- Creating a peaceful, calm, learning environment: use of effective classroom management practices and structures that build relationships, the SEL program helps teachers create calm, safe classrooms that are more productive for learning.
- Addressing inequitable discipline practices: A SEL program encourages teachers to respect students and to treat misbehaviour as mistakes like those students who make with academic work, not as signs of moral or character problems.
- A SEL program guides teachers to consentrate on what students can do to restore relationships and repair any damage they have caused, as well as what they might behave in another way in the future, and making students feel guilty or ashamed.

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1.2.5. Social Awareness

E. Durkheim, the French sociologist, stated that in each of us two beings coexist: the individual being and the social being. The individual being exists only through the social being and disappears with the individual, while the social being survives in the collective consciousness. The same author said that the purpose of education is to constitute in each of us a social being (E. Durkheim, 1980, p. 39).

Early school age or middle childhood is a period marked primarily by changes in social status, and less by fundamental changes in cognitive order. The school creates abilities and strategies that contribute to the structuring of the identity, the structuring of one's own abilities, specific individual characteristics and all the responsibility of the child's desire to be like the adults. During this period, life patterns are formed, but also social patterns of thinking and action; it forms respect for work, discipline, as active traits. Primary school children are starting to define themselves in the terms of the groups that belong to them, and they start talking about themselves in terms of qualities (I'm shy, I'm friendly, I'm nice). (Consult Plus & Asociatia de Stiinte Cognitie din Romania)

Surely you know the saying "Think before you act" just as you are familiar with "children say crazy things", well the ability of social awareness develops over time, as their social circle expands, they are exposed to new experiences. In the long run, social awareness will help the individual in professional integration, through his ability to exchange information, to communicate and collaborate with others.

But what is social awareness? The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines **social awareness** as, "*the ability to take the perspective of and empathize with others, including those from diverse backgrounds and cultures. [It is] the ability to understand social and ethical norms for behaviour and to recognize family, school, and community resources and support.*" (Borowski, 2019)

Social awareness is one of the elements of emotional intelligence. If we were to define social awareness through words it would be empathy, diversity, equity, inclusion, multiple viewpoints. Through this component, children cultivate and learn to show respect for others and to appreciate different perspectives. Social awareness requires a good collaboration between educational institutions, educators and parents so that everyone recognizes values and encourages each culture's specific learning styles (respecting their values and traditions), creating relational models between all students.

Gabrielle Botelho says that social awareness is composed of empathy, organization awareness and service orientation.

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Empathy - “Put yourself in my place and you will understand” - is the ability to understand or feel what another person feels from their perspective. Putting yourself in someone else's shoes can be difficult, especially when they are suffering, but it is very useful because it allows you to understand the moments that the person is going through. Empathy is that feeling that gives rise to a behavioural tendency to help others naturally, spontaneously and to express compassion.

Organization awareness - is the ability to read the signs, be aware of what is not clearly said and to understand the unwritten rules. (Botelho, 2021). Service orientation - is the ability to anticipate, recognize people's needs, and provide an opportunity for supporting others. Starting from Daniel Goleman’s 1995 book ‘Emotional Intelligence’ (Goleman, 1985), Lisa Lightner listed some skills that develop social awareness:

- Emotional self-awareness – Being aware of your own emotions and how they affect your behavior is crucial to effective interaction with others.
- Self-regulation - Self-knowledge, sincerity, awareness of one's own behaviours and what impact or consequences they have in the long run, along with managing emotions, especially those involuntary reactions that we all experience throughout life.
- Motivation – The role of motivation in the evolution of each of us is extremely important whether we are talking about personal or professional life.
- Empathy – ability to understand the thoughts and feelings of the other in a given situation, from the perspective of his experience, even if we have a different angle to look at things.
- Respect – Respecting someone means respecting their beliefs and values, recognizing them, accepting them, even if you do not agree with them. Respect means accepting the differences between us.
- Kindness – it is a social value that is based on respect, affection, and goodwill in the way we relate to others.
- Listening actively – By actively listening we can understand how the speaker feels about a certain topic or situation - we listen to what he is talking about, and we focus on his emotions, worries and tensions behind the words.
- Cooperation –it is the process of groups working or acting together for the common good, instead of competing for selfish benefit (Lightner, 2021).

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2- SEL PRACTICES IN PRIMARY SCHOOLS

2.1. GENERAL OVERVIEW IN EUROPE

Social-emotional learning competencies are recognized as crucial for being a good student, citizen and worker (Weisberg & Cascarino, 2013). In Europe, many children of the school-age have social-emotional problems (Cefai, Bartolo, Cavioni & Downes, 2018). International authorities, such as UNESCO, UNICEF, OECD, and WHO provided some guidance to manage these challenges effectively. Accordingly, emphasis on the social and emotional learning has been growing in Europe as well as throughout the world. Besides, it is increasingly recognized as key 21st-century skills and is becoming an essential aspect of curricula across European countries (Cefai et al., 2018; OECD, 2015). Dracinschi (2012) stated that curricula of European countries involve issues regarding social-emotional learning. Furthermore, she pointed out that citizenship or civic education curricula in France and Netherlands can be cited as examples.

Examining the curricula in European countries closely revealed that there are two approaches observed in implementation regarding social-emotional learning (Humphery, 2018). One of them is adopting existing interventions developed in other countries, another one is developing and implementing their social-emotional interventions. For instance, while the Program for Promotion of Mental Health and Learning: Social and Emotional Education is implemented in schools in Greece and School Prevention Program, which is compulsory in every school in Poland; the Second Step curriculum is adopted in Germany.

As indicated above, there is an increasing interest in social-emotional learning throughout Europe. Consequently, there are different interventions implemented. Below social-emotional learning practices of Greece, Poland, Portugal, Romania, and Turkey in primary education are explained in detail.

2.2. SEL PRACTICES IN PRIMARY SCHOOLS IN GREECE

2.2.1. General Overview

Emotional learning programs in Greek reality

The institutional framework for the design of emotional education programs and the implementation of School Health Education is a highly interdisciplinary field activity that helps to improve school life and link the school with social reality. The purpose of Health Education is "the protection, improvement and promotion of mental and physical health and the social well-being of students as they develop their social skills and

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critical thinking as well as upgrading it in their social and physical environment. Health Education programs have been developed in Greek schools since 1996 on a nationwide scale. The purpose of these programs is to "help the children and adolescents in acquiring the required knowledge and skills, that will enable them to make consciously responsible and conscious choices in their lives ”(Koziva, 2004, p. 13).

The participation of teachers, as well as students, is voluntary, while the duration and time of implementation of the programs are as follows: following: a program can be **at least five months** and one week per week, which is specifically set and it is recorded, in the minutes of the school's apprenticeship board, the program and accompanying the project submission plan.

Every teacher can undertake a program and does participate in up to two, and each student can participate in up to two programs. In addition, it is desirable for each program to be supported by a group of (one to four) teachers in which a certificate of participation on completion is issued by the Director and the Head of Management.

Still, at the end of the school year, for all activities, it may be available for a **two-day presentation of programs.** The Principal of each school in a special pedagogical session informs teachers and those who wish to undertake the implementation of a program that constitutes a voluntary student group, that can consist of either a regular school unit or a group of students from different classes or departments, or from school students in collaboration with students from another school (secondary schools). After the group is formed, the teacher selects the theme of the program in collaboration with the students. The ideal number of people in a group is 15 with two people apart.

It is also important to emphasize the possibility of participating in a school network in one county (eg a group of ten schools), and the possibility of participation in European Programs with a common theme (eg ERASMUS +) following an invitation from the Health Education Offices.

After the choice of a theme, follows the design of the program that includes title, media, and goals, content, content methodology, development schedule, partnerships, calendar activity planning and student and teachers' names who will be involved.

Implementing a Health Promotion programme. – The methodology and the stages

When implementing a Health Promotion programme, the stages that are carried out are the following:

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1. familiarize the team with the object of the Health Promotion program and choose the topic that will be of concern to the team,
2. its foundation cohesion of the group - and signing of a "contract" by all its members' team, the terms of which will form the framework of the team's operation, will they are respected and will be defined by everyone;
3. exploring knowledge and attitudes on the subject, which can be achieved by techniques such as brainstorming ideas, story or letter writing, twin talk and sharing in a large group,
4. setting goals, broken down into specialists, into general, visible (e.g., drug use program) and invisible goals (e.g., increasing students' self-esteem, etc.)

The other stages are:

5. investigating the topic (e.g., with field research, visits to sites selected by team members),
6. interpretation - understanding of the issue through experiential techniques such as games roles, dramatizations, simulations, etc.,
7. pedagogical intervention in shaping students' attitudes and values - because the methodology of Health Promotion is about developing skills for choices that promote mentality, and physical and social health, through active and experiential learning, since the most appropriate model for this approach is considered to be the one which introduces the concept of social skills and develops ways of communicating, conflict resolution, decision-making, etc. Every program starts with a body theme and then incorporates the special theme selected. Self Esteem, Individual Identity, Emotions, Communication, and Active Hearing, form part of this theme and form the single basis for elaborating the individual issues while they are it is necessary to refer to them repeatedly throughout one's application program.

The next and last stages are:

8. action strategies, such as is the active involvement through which students are taught to take Initiative on various issues and finally
9. evaluation, a procedure at which, through a questionnaire, control factors such as suitability; coordination, program methods, and feedback from the participants and which evolves into two phases: one that takes place during the duration of the program and the final, where its overall assessment is made.

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10. support for the implementation of the programs in Greek schools is provided by the Office of Health Education and its Head.

Objectives of the implementation of Health Education Programs in Greek Education

The educational program - school activity in a Health Promotion programme is not a typical school lesson and differs from conventional teaching. The curriculum is distinguished in terms of thematic the nature of the subject, the collaborative working method and in structure since it includes field studies and subject laboratories activities.

The instructor/coordinator involved in implementing one of the Health Promotion programs should be familiar with topics such as the dynamics of the group mentioned below, as well as the methodologies used based on the transmission of experience, group and binary discussion and understanding and managing emotions. But most importantly, he/she should help the team create a climate of mutual trust and mutual respect.

The final goal of Health Promotion programs is shaping citizens who will get life into their hands and that's why they focus on cultivating self-esteem, decision-making abilities, and resistance to peer pressure, skill development communication and creativity. It is also important to mention the fact that "experiential learning is considered to be the most appropriate way of learning in the implementation of a Health Promotion programs, where their purpose is not to provide knowledge, but most importantly change, or shape attitudes and behaviours in health-related issues and beyond. " (Koziva, 2004).

International and Greek experience considers it as an effective overall prevention program that provides for continuous intervention in a wide range of young people. Greek education through Health Education and in collaboration with various Centres of Prevention is advancing to implementation of programs aimed at educating teachers. This is done through targeted training seminars enhancing the mental development skills and emotional well-being of both teachers and students themselves. At this point, it should be noted, however, that the financing in terms of state in Health Education is incomplete in Greece. For this reason in order to ensure the practice of a Health Promotion program has implemented a model with alternative ways of self-financing through cooperation at the level of County, Municipalities, but also with various NGOs, Universities, individuals, and European funds.

Linking the implementation of their management programs conflicts with the prevention of violence

In particular, most programs implemented in Greek schools, both primary and secondary education, are in line with policies in many European countries.

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And which focuses on the design and implementation of peaceful resolution programs of disputes and mediation. These policies have emerged as a direct institutional response to the problem of school violence and bullying throughout the 90s. Most EU Member States responded with institutional interventions on the issue of school violence, which has been included in the European Commission's agenda. Dealing with school violence in most EU countries in the context of adopting an integrated school policy (whole school approach) is illustrated at three levels of intervention: primary, secondary, and tertiary (Artinopoulou, 2001).

In Greece, school violence, as in most of the countries in the European Union, has grown significantly, mainly because of the various economic, political, and social changes, as well as to emigrate populations that have been occurring in Europe for the last 15 years. The European Union through the planning and organization of interventions, as well as teacher training advances in policies to prevent violence in primary and secondary education. Many of its member states EU have designed and implemented measures to prevent violence at school, while the problem is addressed globally. Particular attention is paid to its subject training teachers for cultural management, emotional, mental, and other conflicts that happen so much in the classroom, as well as the teacher himself.

In particular, the need to create as safe as possible atmosphere in the school environment is linked to the efforts, to tackle the phenomenon of school violence. That's why it's so important to upgrade the social skills of teachers and teachers of children. Teacher training is important to include not only techniques for the prevention and treatment of this phenomenon. In particular, with regard to the prevention of school bullying, according to the research that has been carried out over the last two decades on its subject To tackle it, a comprehensive approach is needed that will not only mobilize the school, but also the wider community. So according to what we mentioned above, the "holistic school approach" and the holistic programs, most of which include actions related to school, classroom and individual are the most effective approaches to tackling school bullying (Makri & Argis., 2010). One of the most common means of preventing violence and violence Bullying is the technique of resolving it conflict and anger management, which combined with training Social skills are the most effective tools in an effort to eliminate incidents of violence in schools.

Conflict management training material

According to the educational material provided by the Promotion Program of Mental Health and Secondary Education "Social and Emotional Education in School",

The Program "Social and Emotional Education in School" was implemented in elementary schools in Cyprus by the Center for School Psychology Research and Applications Of the University of Athens in collaboration

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with Professor of School Psychology Dr Chryssi Hadjichristou and in collaboration with the Educational Research and Evaluation Centre and Cyprus Institute of Education is a primary prevention program and is implemented by school psychologists, but also by teachers, after training and on-going supervision during its implementation.

the modern trend that intervention programs are predominant and designed training in conflict resolution at school as part of the wider Children 's mental health prevention programs give them skills such as: being able to adapt more easily, practising skills that help them maintain better social relationships, showcase greater collaboration with teachers and with each other, but at the same time to improve and promote their learning and development.

Also, the "European Network of Schools for Health Promotion" (EDISPY), which includes 39 European countries, and has included Greece since 1992, has adopted **a holistic approach** to school and Its main priority is the development of "healthy" schools**.**

For this reason, has also created an educational handbook entitled "Promoting mental and emotional health at school 'to be used by the teachers and which aims to present the context in which mental and emotional health at school can be developed through one a variety of active learning and communication methods. The handbook in English is in this link:

https://drive.google.com/open?id=1TznBwaX_RvS38TW1Umktdk9D9JMb9Arp

The main purpose of this manual is to contribute, through the program which demonstrates, "the reinforcement of the skills that the participating teachers and students in order to improve quality the relationships in the school, as well as the quality of the school environment, which, as is known to help reduce aggression and violence. "(Weare, K. & Gray, G., 2000, p.15**).** This educational manual that is used as a guide to various educational activities at the school for promoting health at school, including modules such as: Developing Self-esteem, Developing Listening and Listening Skill effective response, stress management, effective Communication and Categorization - Claims, The Path to Change behaviour in schools, etc.

The educational material of the Program is on the same axis "Resting on My Feet" and, in particular, the book "Confidence and Feelings", of the sixth tutorial on "Resting on My Feet", (Original title: "On my own two feet"). In this book, ways to deal with criticism, as well as skills for the smooth resolution of conflicts between

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parents and children with a constructive effect way. The methods followed are free association for its causes of conflict, role-playing, small group work, etc. EPIPSY-OKANA, KETHEA 1996)

In the following link, the ALTERA VITA team made a translation of the educational tool from KETHEA (organization against drugs) in GREECE FOR ELEMENTARY SCHOOLS for social and emotional skills.

https://drive.google.com/drive/folders/16epvpUTgx6ttfSNIJNZc30gzZACTth9M?usp=sharing

Conditions for successful implementation of programs

As with most social programs and emotional education at school, and so do most programs conflict management is based on the experiential way of learning that is based on the triptych I hear - I suggest - I act. This approach, which relies on experience, experience, among other things includes understanding the functioning of the group, and the arrangement of the positions of the students involved in a circle, with the teacher in the middle. It is also important team dynamics for the implementation of the programs, a term put forth by Kurt Lewin in his work "Field theory in social science" (1951), noting the importance of interdependence among its members, which creates forces that cause it to evolve. Ensuring a climate of cooperation within the group is ensured by the teacher-coordinator.

An important role in the implementation of the programs is ownership of students in active learning techniques, including pedagogical games, free association, role-playing and dramatizing, that is, practising students in situations where they have a potential for conflict, a technique that helps better empathy some of the emotions and views of others, the painting-drawing, the working in small groups, discussing in pairs, dealing with cases, where students record how they would be treated creatively each situation and various other pedagogical processes.

Finally, it should be emphasized that during the meetings in conflict management programs it is considered necessary to comply with students two more factors. First, no one is allowed to interrupt the other while talking and, secondly, everyone should be referring to their own feelings rather than what the other said in a conversation. These terms are considered invisible to participants in the meeting process, for the most appropriate implementation of the various activities within a team.

Assessment of conflict management programs - The benefits of conflict management programs in education

According to research done, the majority of school children's Conflict Resolution Intervention Programs Focus on addressing the increasing incidence of violence in schools.

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Experts also find that the reduction in aggression and Outbreaks of violence at school is largely achieved through the transfer of knowledge to students on conflict management; practising their negotiation skills, such as negotiation -mediation and their application in real situations (Hatzichristou, 2004). They also noticed a significant improvement in self-concept and self-esteem students' self-esteem, as well as social development and their emotional abilities, including self-esteem; teamwork, empathy, etc.

An important factor in the success of resolving conflict at school is to build common goals and values between teachers and students' parents. In recent years, through interventionist conflict resolution programs significant benefits have been observed, which, in addition to emotional - social skills.

The above is summarized in the following areas: violence prevention and responsible student behaviour, as well as an understanding of improving their rights and obligations; improving interpersonal and interdepartmental relationships, and their school performance (Hatzichristou, 2004). Also from the implementation of the program "Social and Emotional Education at School »in elementary schools in Cyprus by evaluating students' questionnaires from his research team Of the University of Athens, among the findings made regarding

One of the goals achieved was also its effectiveness in recognizing verbal or physical violence as an ineffective solution to the conflicts.

Concerning the official results of school assessments conflict resolution programs that have already been implemented in Greece, although they have a limited number, based on the data collected to date, improvement in communication skills has been reported as well as the management of negative emotions of student conflict that have been trained through mediation programs. It was also observed a significant reduction in the number of conflicts, and an increase in cooperation of students with a view to finding solutions to common problems with the simultaneous pursuit of a common consensus.

Experience implementing similar programs in its countries in Europe shows 84 compared to those applied in Greece developing critical thinking and problem-solving skills; and crisis management in the school community. In addition, growth was observed vocabulary in relation to respect and justice, rights and the need to comply with the rules. According to what Dr Artinopoulou says, hereby established as a founding member of the European Observatory about School Violence and about the benefits that regulation can have on school mediation in Greece, 'the approach and the peaceful conflict resolution techniques and school mediation will have to be integrated into the curricula of its teachers primary and secondary education."

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2.2.2. Teaching Methods & Techniques Used

Theoretical approach for interventions in schools - Introduction

Aristotle characterized the “Man” as a "political animal", emphasizing in his interaction and interdependence and the relationships he develops with other people, the groups he belongs to, the society in which he lives and the culture that surrounds him. Heraclitus introduced notions such as the holistic view of the man, taking into consideration all the processes (biological, psychosocial, sociocultural, socio-economic) that occur in different sectors. Biological processes are about physical development, psychosocial focus on identity and in the psychosocial manifestations of man, socio-cultures refer to social and cultural behaviour and finally socio-economic refer to the ability to produce, create and exchange the products with others (Vassiliou 1987). Socrates with his obstetric-dialectical method that he applied in groups, gave emphasis on ignorance, free expression and storytelling, and the ability to ask questions and develop a dialogue, and he aimed to emerge a new narrative and new social constructions.

In the early twentieth century, in 1920, Social Psychology was focused on a specific study about the social relations of the individual; how the individual is influencing others, but also the individual is influenced by small and large groups in which he belongs, what interdependence is developing among them, what is the context surrounding the individual, what social and cultural factors affect the processes in an individual and collective level, how individuals form groups, how they lead them, what are the characteristics of those in power in each group. These and many other issues are being explored by the industry of Social Psychology, depending on the field of study each time (Georgas 1995, Hog & Vaughan 2010, Baron et al. 2013).

Utilizing concepts from Social Psychology concerning systems and the relationships of members within them, the General Theory of Systems (GSF) was introduced in the 1940s by the biologist Ludvig von Bertanlanffy, who created a theoretical model common to all behavioural sciences (Kotsidas 1994). The emphasis given was on the dynamics of relationships and the patterns that develop in transactions between members of a system. A system, according to von Bertanlanffy (1968: 55), is «a complex of interacting elements. The study of a system doesn't focus on the individual parts that make it up but, on the relationships, and interdependencies that develop among them. This view is holistic, not fragmentary, or isolated».

One of the first areas of the application of systemic theory is family therapy, which has exploited concepts from the general theory of systems in the family space revealing dysfunctional and functional relationship patterns developed in a family system and suggesting different ways of handling difficult situations.

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The events are approached in a circular rather than linear way, with no emphasis on the 'why', the reasoning of a but in the way, the members interact with each other. When a family member shows dysfunctional behaviour, the emphasis is on how members communicate, interact, and interact with each other in the family context and not in the individual himself. The family life cycle, the critical ones, are taken into account life events, patterns of behaviour manifested by members and investigating the permeability or not of its boundaries family in the influx of new information.

It goes without saying that general systems theory can be used in the school context, not just in difficult management situations as well as in the development of positive interactions and interdependencies among its members. The school as a system consists of students, teachers, principals, support staff, students' parents, the subgroups to which they belong, as well as the interactions and interdependencies between them (Georgas et al.2006).

The individual (pupil, teacher, parent, administrator) belongs to a small group (e.g., students, the teacher group, the parent group in the classroom), which belongs to another broader group (e.g., school class, teachers 'club, parents' club), which is a subsystem of the school community, which is part of the wider community (e.g., Municipality) of wider society (e.g., state, institutions) (Polemi-Todoulou 2010).

The interactions between the various subsystems, from the individual to the environmental elements, have also highlighted the ecological model of Brofenbrenner (1979), which focuses on the individual and the concentric circles around what it represents the subsystems to which it belongs, as well as the model of George (1995), according to which is the study of one's psychological qualities, such as oneself, values, attitudes, personality, and they interact with the individual's family, relationships with individuals in the small community, institutions in the society and, finally, the ecological elements of the environment that surround all the aforementioned subsystems.

In one ecosystem-based approach, Molnar and Linquist (1994) based their own method of intervention in the school context, emphasised the change brought about by the change in the behaviour or thinking of only one member. In one classroom, for example, if we intervene to change the way the teacher thinks, we will be affected his behaviour and consequently, there will be a change in the behaviour of the student who creates e.g., upheaval.

This change will also improve the relationships between members (student-teacher, student-member). Consequently, if we influence the student's behaviour, we will improve his interactions with the other members of the classroom system (Lambraki & Paris 2010).

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According to systemic theory, when a member (eg a student) exhibits, for example, a behaviour, we try to explore the meaning of this behaviour in this context, taking into account the groups which belong to the student (eg peer group, teacher-student group, activity/group groups), the context in where this behaviour is taking place (lesson, break, etc.) and we try to see the interactions and interdependencies between the various members within the system. A behaviour below has a background of emotions and the thoughts that are caused by the relationships between the members in a particular context and the experiences that atom. That is, we are trying to 'bend' and deepen the relationship between the various subsystems, to find the hidden meaning of behaviour and not focus on eliminating it by working with the individual (e.g., punishing the student for not repeating the behaviour). An equivalent treatment, even if it did eliminate that particular behaviour would take some time to deal with a new behaviour that would appear in the first place.

When a behaviour is repeated, according to systemic theory, it is considered symptomatic behaviour, which is not inadvertent, but is a strategy aimed at controlling a relationship, when other methods applied have failed (Haley 1963). The student, for example, is constantly making noise in the classroom, but he manages to get his teacher's attention on him. The symptomatic behaviour of the student controls the communication of the teacher with him, whether negative or positive.

Another concept widely used in the family and school environment is the concept of homeostasis such as the one which was first used by Bertanlanffy (1968) and then the concepts of morphogenesis and affinity (Hoffman 1981, Dell 1982), in which a system develops some properties to cope with a possible change, threatening to the system. A common example is the tendency of students to significantly improve their lessons, to show a sudden and unexpected drop in grades or results in a test. One yet another typical example that often occurs in a period e.g., nationwide exam is the vulnerability that presents some students who become ill and cannot participate or write poorly, which brings about no change in their lives with a student, for example, property.

The intergenerational approach to school

Murray Bowen (1975) is a major exponent, who addressed the family, according to the systems theory, as a system of emotional, interconnected relationships that is understood when analysed in an intergenerational context, when behaviour is linked to the relationships that have developed over the years in the various generations. Bowen focused on relationships that connect members in a family and emphasized the non-differentiation that there may be between the members in the emotions, the thoughts and consequently the behaviours. When it manifests, for example, systematic refusal of the child to go to school, intervention by the teacher should focus not only on the child but mainly on the way the parent thinks, feels and reacts. The

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differentiation from the child's side requires the parent's willingness to allow this transition. The differentiation of the self begins from preschool and gradually, progresses to adolescence and child withdrawal from the family for studies, career development etc and, reflects the ability of the individual to separate the feeling from the mental processes, how the individual is able to separate their behaviour from the emotions by differentiating them himself from the feeling of "significant others" (Goldenberg & Goldenberg 2000). The teacher in order to bring about a change in the behaviour of the child/pupil, it is important to work with the parent through individual or group meetings and focus on the importance of parenting behaviour and behaviour from preschool age in enhancing the differentiation of the child. Simple exercises that can be suggested and implemented by parents avoid first-person plural (us) for activities, descriptions, ratings, and obligations relating only to the child. For example, the expression "today we have many lessons", "our teacher is amazing "is replaced by the phrase" P. has many lessons "," P.'s teacher is amazing ".

Parents, through practice, begin the process of separating themselves from their children and gradually training them that the efforts, the successes, the failures, as well as the obligations relating to their own activities, concern the children and do not take the form of a "family affair". Parents can sympathize and support, but not take on the responsibilities of their children by making weak children who do not take the initiative (Yiocsa 2012).

Beyond the notion of differentiation from the 'mass family ego' (Bowen 1996), other concepts that can be exploited in the school are triangles. According to Bowen, the triangle is an essential element of the structure of the family relations system. At rest, two people can communicate without each other tensions (Goldenberg & Goldenberg 2000). But when, for some reason, internal or external factors disturb the equilibrium of the binary system, causing internal disruption to either one person or both they include in their relationship a third pole, which may be another person, one activity, one persistent dealing with the internet or developing addictive behaviour. The teacher can use the concept of triangles in collaboration with parents and differentiate the binary relationship that the child/pupil develops with the teacher at school from the one it develops with the parent at home. It is very important that the parent does not intervene in studying the child by substituting the teacher at home or suggesting other ways of approaches, but it should always support and facilitate support in collaboration with the teacher. Also, with regard to communication with children in the classroom, it is important for the teacher to foster the development of binary, initially, relationships through experiential exercises encouraging work in pairs, then in quadrants, and finally in plenary (Polemi-Todoulou 2010, Yiocsa 2012).

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The formation of the couple helps to develop the dynamic of the group by initially fostering relationships in the smallest possible group that is the couple. That way you work in a group, avoiding the exclusion of those students who do not play an active role in the wider group in a school class. Also used are all the "voices" that may not be "heard" in the larger group at all. Then, when couples unite with another couple and form quadrants to complete a task, they join and compose different works, views, ideas etc that they have recorded and make a new composition, with the aim of completing a new project that will include the creation of each member.

Triangles between students are avoided in this way and at the end of each notebook presents its work in plenary. Also, a simple technique, to avoid the triangles in the classroom that can be applied by the teacher, is to encourage the students to talk about themselves and not about other students, as is usually the case, especially in cases of conflict. In this way, it is encouraged to focus on the self and thus to take responsibility for the self-student. In the child's expression "lady, N. spoke badly to A." the question that can be asked by the teacher is "would you like to tell me something about you? N. will talk to tell me about herself. "

The strategic approach to school

The strategic approach was developed in the years 1952-1962 and focused on family communication, focusing on the process and not the content of communication between individuals. The view of dysfunctional patterns of communication takes place in a circular way, focusing on interacting with the here and now and expanding the context with interventions from the individual to the social (Jackson 1965). Jackson laid the foundations for an interactive approach, which can be applied in the school environment. The key concepts that can be exploited by the strategy Approaches to the educational context are the following (Goldenberg & Goldenberg 2000):

- Every behaviour is communication at some level

The student who makes a joke, says jokes, throws cards and displays behaviours that disrupt his flow in the classroom can be viewed as the member of the burden of communicating with the need for climate change. The teacher may treat a corresponding behaviour as follows: “I understand that I need to do something different now. Would you like to help me with that? " This way the naughty communicate disciple, instead of being treated like the "black sheep", is treated as the person who helps change something in the climate in the classroom, taking on an auxiliary role.

- Every behaviour includes messages at the verbal and non-verbal

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Communication problems often arise when the content of verbal communication does not agree with its non-verbal communication (movements, gaze, voice tone, posture), post-communication. In this case, it is important for the teacher on his part to try to synchronize the two levels so that he can pass clearly messages to his students. The teacher who teaches a lesson, but for example at the level of telecommunication shows that he is not focused on it, passing double messages to their students, who could respond with various behaviours at the non-verbal level of communication from the teacher's perspective.

Also, the expression of emotions from the teacher in first-person facilitates the integration of verbal and nonverbal messages to students (e.g., "I am very tired today, I would like to help make the lesson interesting").

- People's relationships are symmetrical or complementary

Symmetric relations are considered to be equals. Complementary are those relationships that contain contrasts. In symmetrical relationships, individuals seek to take control in the same way. For example, a student boasts that he is the best in basketball and another boasts that he is the best. The danger in this kind of relationship is to become competitive. In complementary relationships, one usually has control over the other obeys. In these relationships, the danger is that this hierarchy shape is consolidated without the ability to change the power of communication between them. The teacher, for his part, can assign tasks to small groups, by setting the criteria for selecting the couple or other members themselves, to enable children to interact with other children with whom they have symmetrical or complementary relationships. For example, the directive that can be given to Kids to choose a couple is "choose a person to work with for the first time". In this case, is not possible because the children have already worked together, the instruction can be given as follows: "choose a person with whom you have little cooperation so far ».

This way every student has the opportunity to get in touch with another student equally or complementarily at the level of relationships and alternate roles not consolidated in an expanded social subsystem in the classroom. Also, presenting the work of small groups in the plenary gives it the ability for students to take control of communication with other students and assume their role as coordinators in the classroom. Other students also focus more on the lesson in order to attend to their classmates, a different alternative to teaching the lesson. With this change in relationships with the teacher and their classmates, students can enter a higher position, and gain empathy for the role of the teacher and the difficulties he or she faces, while on the other hand teacher has the role of observer, who in the end makes the composition of the work of all groups.

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The paradoxes in communication. An approach to school

Central to Haley's (1996) theory are the concepts of control and power. Control efforts are characteristic of all families and every relationship of two or more people. According to Haley (1963), conflicts for control/power in a relationship are unavoidable and affect all subsystem members that occur. The saying "if you love me Don't Love Me" by Mony Elkaim (1991), gives this command to the individual. "To love me, you must not love me." The one message cancels the other, so the person, whatever message they choose to follow, always fails. Communication often contains duplicate messages. Teachers often say to their students, "Quiet!" The word 'do silence 'contrasts with non-verbal (volume of voice). Students may feel confused. Whoever how to comply with this directive, they do not exercise voluntary control over their conduct. If they are quiet following the verbal message, they do not respond to the non-verbal directive that contains the volume. This often results in a cycle of interactions between students and the teacher, with the teacher shouting students responding loudly or protesting loudly.

A key tool of the strategic approach is the use of paradoxes. Paradoxical communication urges the individual to obey, obeying a command. In utilizing the paradoxes in communication, exercises are given with immediate and indirect instructions, such as the use of instructions in two ways (Haley 1984, Madanes 1991): mandatory and descriptive command:

The mandatory paradox directive requires the individual to do something by reinforcing the behaviour that needs intervention, instead of requesting its suspension. For example, the teacher asks his students to find as many as possible ways can make the lesson boring. This way he gets information on what to avoid inside from the eyes of the children. Another example of a student making a lot of mistakes in his writing is to underline it a teacher of the right words and not the wrong ones. The student who until that time was hesitant to look at it his underlined writing with another colour in every mistake, now he is now focusing on the underlines since they bring out the right words and not the wrong ones anymore. Gradually, the underlined right words increase and there is a marked improvement in the pupil.

The descriptive paradox directive focuses on describing a behaviour giving positive meaning. Her technique of positive reproduction (Minuchin & Fishman 1981) positively signifies a "difficult" behaviour. For example, a student who throws chalk during the lesson when the teacher turns his back is treated as follows: "I'm so glad we have so many chalks and we don't have to go to the office to get one.

Thank you very much, C. " At the end of the lesson, the teacher, also using the obligatory paradoxical instruction, asks the student to carry the next day as many chalks as possible. From that day the student

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can bring them chalks and offer them to the teacher no longer by flying them provocatively but as her assistant. Another example that takes advantage of the descriptive paradox of directive and the positive reproduction of behaviour is as follows: A student in a small provincial town hangs out with another student who makes very frequent unjustified absences from school, he uses alcohol, and his behaviour is provocative. The first student's parents are worried and come to contact with the responsible teacher of his class. After discussion, the joint treatment of both subsystems that the pupil (family, school) belongs to the parents call their son and congratulate him or her on being with the other child:

"Well done hanging out with P., who needs your help. We are sure your friends will help positively.''

On the school side, the same approach is followed. Student collaborates with other friends/classmates and undertakes to help their classmate come to school, not miss absences, etc. The paradox, in this case, is that parents instead of preventing their child from hanging out with the other child, encourage them to continue to do as much as possible with a positive role.

After some time, students' cooperation, and encouragement to their classmates with the difficulties of adapting to the school context had significant positive outcomes by reinforcing the group of friends in the student's life.

The technique of focusing on the positive

One technique that can be applied by parents and teachers is to enhance the positive characteristics of the child, the positive sign (Selvini Palazzoli et al. 1978). We ask parents and/or teachers (seated in a circle) to write five adjectives for the child/student on a paper. Then everyone says the five adjectives in plenary. Once the adjectives have been quoted by everyone, we ask them to circulate any of these adjectives are negative. The next step involves replacing negative adjectives with positive synonyms, using positive regression (Minuchin & Fishman 1981). For example, "grumpy" can be "Contingent", and "hyperactive" can be "live" coke. In closing the exercise, we emphasize the importance of changing the meaning of the adjectives we attribute to children/pupils, the effect they have on adult behaviour the positive suggestion of behaviour and the behaviour of children in self-fulfilling prophecy (George 1995), according to which the frequently repeated positive or negative attribute performance, the repeated verbal or non-verbal behaviour on the part of the adult results in her being confirmed by the child herself, who confirms the characterizations given to him by the "significant others" or the behaviours they expect of him.

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Discussion

With the application of systemic theory and more specifically the techniques applied by intergenerational and strategy Approaching, the school environment can have positive results for a variety of reasons. First, the symptomatic behaviour of a student is viewed as a challenge to be treated positively rather than punishable manipulations. "Difficult behaviour" is seen as a need for communication by the student who has not found the appropriate way to express it. Within this context, the teacher can explore positive ways of manipulation in his interaction with the student. The application of the above techniques enhances the interactions and the communication between students and the student-teacher subsystem. The student who manifests a "difficult behaviour "is not marginalized, not isolated, is not the" black sheep "of class, but rather is invited to participate in classroom activities. Collaboration with parents focuses on sharing with him educational application and utilization of the above techniques, which can also be successfully applied by the parents in the family context. The climate in the classroom is improving and students are changing roles and positions in the small and big teams. They can be equal members of a team working together to complete a project cultivating complementary relationships without the role of the possible and the impossible, which they usually undertake within daily interaction with each other. Interventions with the above techniques create a pleasant classroom environment and improve the relationship between the teacher and the students. The intergenerational approach enables a teacher to approach the manifestation of specific behaviours through a different theoretical framework; and offers the opportunity to structure the course by enhancing the development of team dynamics (Polemi-Todoulou 2010, Yioca 2012). In particular, the creation of smaller and larger groups in the form of doubles and quadruplets is enhanced, avoiding triangles between students and allowing collaboration and separation of students from common patterns of interaction between them (Bowen 1996). The above techniques can be applied using, also the ecological model (Georgas 1995) and the ecosystem approach (Lambraki & Paritsis 2010, Polemi-Todoulou 2010). The Strategic Approach by Applying the Interactive Approach (Jackson 1965) proposes a theoretical background capable of enlightening and facilitating communication within the classroom and in the family context. Meanings widely used by family therapy find application in the school space, expanding its interventions framework and creating a pleasant classroom environment using paradoxical techniques (Haley 1963, Madanes 1981). All the above techniques can be applied simultaneously in the school and family settings enhancing family-school collaboration. Systemic theory, through the various schools created, offers alternative ways of managing difficult situations using techniques from other schools (Structural, School of Milan, Narrative Approach), which have also been successfully applied to Parental Counselling, offering a systemic perspective (Yiocsa et al. 2012).

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2.3. SEL PRACTICES IN PRIMARY SCHOOLS IN POLAND

2.3.1. General Overview

In tune to the Polish Government (Boni, 2009; Kleiber et al., 2011), we observe a visible lack of social capital which contributes to important barriers in the long-term prognoses of development of the country, where have been underlined permanently low levels students' social and emotional competences. To overcome the obstacles, Polish authorities added that the education of primary school students could be a solution in improvement of social and emotional competences, especially after the changes in the political system, which started in 1989.

Firstly, educational change within new democratic authorities allowed to establish and conduct the new versions of schools and to design programs of teaching. Secondly, there were recommended aims of education in tune to the national curriculum. The document describes the goals of all levels of education, the content of teaching, and the future competencies of pupils. Thirdly, programmes emphasize and prioritize SEL during the COVID-19 crisis, providing all students with an option of developing their skills and attitudes to be able better monitor and manage their own emotions. It is related to the forms of positive relationships, and maintaining positive mental health with well-being, represented by learning strategies that navigate the world.

In this perspective, schools are perceived as the most significant community which introduces the mental health of young people. Schools also promote the mental health if these programs are parts of school activities and involve an approach towards promoting generic psychosocial competence and life skills (Zadworna-Cieślak & Kossakowska, 2018).

Students' social and emotional skills can be trained in activities, programs and interventions which give young people the necessary support and ways how to cope with adversities in preventing mental disorders.

In Poland, SEL is developed in primary schools students mainly during hours for School Prevention Program, which are obligated in every school. School Prevention Programs are constructed according to "Regulation of the Minister of National Education and Sport of 26 February 2002" which used the core curriculum of pre-school education and general education in individual school types. "Journal of Laws" of 2002, No. 51, item 458. As a result, schools develop implementation.

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According to the above regulations, each school should implement a prevention program tailored to the psychosocial needs of students. The School Prevention Program is a project of systemic solutions in a school environment that complements education and directs it to:

- supporting the student in coping with difficulties that threaten correct development and healthy life;
- limiting and eliminating risk factors (individual, family, peers, school, community) that disrupt the proper development of the student and disorganize him healthy lifestyle;
- initiating and supporting protective factors (individual, family, peers, school, community) that favour the proper development of the student and his healthy life (Gaś, 2003, 2006).

A School Prevention Program may include, among others, numerous preventive programs and interventions that are directed at various goals and addressed to various groups of recipients. SEL development is very often an aim of such programs. The recommended Polish preventive programs for school student are listed in a website https://www.programyrekomendowane.pl/. Such programs aimed to:

- developing students' psychosocial skills, including the skills to recognize and talk about feelings, the skill to deal with negative emotions, shaping positive self-esteem and a positive self-image,
- creating conditions for the development of empathy and the ability to adopt the perspective of another human being, which serve to support the development of cooperation skills, the ability to solve problems / conflicts and the ability to make independent decisions,
- encouraging a healthy lifestyle by increasing knowledge about one's own body, negative social influences, health-related decisions, risks and consequences related to the use of psychoactive substances and drugs.

There are also many examples of collaboration of schools in European Union Project such Erasmus+ (Kossakowska & Zadworna, 2021). Erasmus+ projects have potential for educating school staff working in various areas of SEL practice. Their role is invaluable for school psychologists and educators in primary schools, giving the opportunity to connect with the international nature of psychoeducation and prevention.

2.3.2. Teaching Methods & Techniques Used

SEL among students in Polish primary schools is developed during lessons with form teachers, school subjects, workshops with specialists within preventive programs and interventions, extracurricular activities, school celebrations and competitions. Polish schools often cooperate with other institutions such as Psychological and Pedagogical Counselling Centres, various organizations, Universities and High Schools.

There are many prevention and health promotion programmes implemented in Polish schools. One of the programmes, that develops SEL is named “Look Differently”, dedicated for student from grades I-III and then

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for IV-VI of primary school, provided by trained implementers. The duration of the program is 24-27 hours overall (depending on the class), classes are conducted systematically throughout the school year, with a frequency of every 1-2 weeks. Moreover, 2 1-hour meetings with parents are introduced. https://programyrekomendowane.pl/strony/artykuly/spojrz-inaczej,29

The most often trained skills are communication and interpersonal skills (active listening; assertive communication; understanding non-verbal communication; recognizing communication barriers and obstacles; asking and answering; taking and giving feedback information, cooperation skills; conflict management), self-esteem, and stress management. Typically, during prevention programs a series of workshops are developed, using a range of active learning methods including role play games/drama, brainstorm, discussion, self-evaluation, group and individual work (Woynarowska, 2017). Sometimes coaching/counselling sessions with school psychologist are introduced. Teachers are often trained in prophylaxis and can implement preventive interventions during lessons, too. More and more often new technologies are used in teaching methods in Polish schools – especially IT online tools, films, and digitally supported activities (Gigantesco, et al. 2019).

2.4. SEL PRACTICES IN PRIMARY SCHOOLS IN PORTUGAL

2.4.1. General Overview

In Portugal the education is organized according to the democratic principles established by the Constitution of the Republic (1976), in particular, the freedom to teach and learn (Art. no. 43). The Basic Law of Education (1986) has been derived from these principles in order to define educational objectives, structures and models (Eurydice 2021/22).

The governmental agency responsible for defining, coordinating, implementing and evaluating national policies related to the education system is the Ministry of Education (Ministério da Educação - ME). It is responsible for pre-school, basic, secondary and out-of-school education and is also responsible for the articulation of educational policies with qualifications and vocational training policies. In the case of higher education, the responsible agency is the Ministry of Science, Technology and Higher Education (Ministério da Ciência, Tecnologia e Ensino Superior - MCTES), which is also responsible for defining and implementing policies affecting the national science and technology system. In the case of vocational training and education, as well as in adult education, responsibility is shared between the Ministry of Education and the Ministry of Labour, Solidarity and Social Security (Eurydice 2021/22).

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Each school is part of a school cluster, which has its own administration and management team. These groups include pre-school establishments and one or more levels and cycles of education that share the same pedagogical project. Although these school clusters are managed by the Ministry of Education, they have some autonomy in terms of pedagogy and management of the timetables of teachers and non-teaching staff. Some recent reforms have increased the autonomy of clusters in terms of curriculum management (Decree-Law no. 55/2018, 6th July) in order to promote decentralization, assigning responsibilities to municipalities with regard to investments, equipment and building maintenance, provision of meals and management of all staff (Decree-Law no. 21/2019, 30th January).

The autonomy or flexibility in curriculum management (Decree-Law no. 55/2018, 6th July) could be assumed by schools in order to select and integrate specific topics in the curricula (between 20 and 30%), the school council could choose topics about the community, sustainability, citizenship, technology or social and emotional learning and more, and that contents could be integrated in specific school subjects or in projects that include several school subjects.

Organisation: the education system: pre-school, school system, post-school system

In Portugal, schooling is compulsory for 12 years, from 6 to 18 years of age, which corresponds to the end of secondary education. Public education from the age of 4 until the end of secondary education is free and universal.

The education system has a comprehensive structure that involves a long basic schooling with vocational options at the beginning of secondary education. In the first year of secondary education (10th year) students can opt for: a) science-humanities courses; b) vocational courses; c) other education and training provision (Eurydice 2021/22).

Stages of the education system

The education system in Portugal is divided into pre-school education (from the age of three until the start of basic education), basic education (six to 15 years old) and upper secondary education (15 to 18 years old) (Eurydice 2021/22).

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Pre-school education (ISCED 0)

Pre-school education is devoted to children between the ages of 3 and 6 (the age at which they move on to compulsory education). These educational years are optional, it is up to the family to decide whether to send their children to school before the age of 6 but is universal for children starting from the year in which they celebrate their fourth birthday. The network of existing establishments has been increasing in the last years in the frame of a policy of wide availability (Eurydice 2021/22).

Day care centres (for children below 3 years of age) are not part of the education system, being the responsibility of the Ministry of Labour, Solidarity and Social Security.

Basic education (ISCED 1 and 2)

Basic education, as mentioned above, is universal, compulsory, free and lasts for nine years. It is divided into three sequential cycles, in which each one must be completed and is built on the previous one from a global perspective:

the first cycle (CITE 1) includes the first four years of schooling (grades one to four).

the second cycle (CITE 1) corresponds to the next two years (grades five and six).

the third cycle (CITE 2), including the last three years, corresponds to lower secondary education (grades seven to nine).

The guiding principles of the management and organization of the curriculum aim to ensure a general training common to all people, through the acquisition of fundamental knowledge and of skills to follow deeper studies (Eurydice 2021/22).

Upper secondary education (ISCED 3)

Secondary education includes the last 3 years of compulsory education (10th, 11th and 12th grades) and is organized into different types of education. Students can follow a regular education and choose a scientific-humanistic course or choose a vocational course with dual certification (academic and professional). The permeability between the different paths is guaranteed, as well as access by all of them to higher education through national exams (Eurydice 2021/22).

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Post-secondary non-higher education (ISCED 4)

Students over the age of 18 who have completed 12 years of compulsory education can attend Technological Specialization (CET) courses. These courses provide highly qualified technical training oriented towards the world of work or towards the continuation of higher education and normally last 1 year (Eurydice 2021/22).

Higher education (ISCED 5 – 8)

After 12 years of compulsory education, students can enter higher education at universities or polytechnics. While universities are directed towards offering solid scientific training, combining the efforts and skills of teaching and research units, polytechnics privilege vocational training and advanced technical training (Eurydice 2021/22).

Nowadays, higher education is structured according to the principles of the Bologna Process in order to ensure a solid scientific and cultural preparation, in addition to a technical training qualifying students for professional and cultural life, thus developing their capacity for innovation and critical analysis (Eurydice 2021/22).

2.4.2. Development of SEL in Portuguese school context and Teaching Methods & Techniques – past, present, and future

Over time, there have been several changes in terms of laws and curriculum with regard to the development of socio-emotional skills in Portuguese schools, as describe by Cristóvão, Candeias, & Verdasca (2017) and Costa and Faria (2013).

In Article 46 of the Basic Law of the Educational System (1986) it was proposed that the curricular organization should take into account the balance of affective and social development with the other components of the student's education

In 1989, objective indications emerged on how to operationalize the issues of social and emotional development in schools.

Later, Decree-Law 6/2001, of January 18th, promoted a curricular reorganization of compulsory education, a disciplinary area of Personal and Social Development was formally constituted, which included 3 subjects for all students of basic education - Civic Training, Project and Accompanied Study Area.

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In 2004, Decree-Law 74, of March 26, considered the introduction of the Project Area discipline in this teaching cycle, as an area of “integration of knowledge and skills acquired throughout the course, around the development of study methodologies”, research and group work.

Subsequently, Law 50/2011, of 8 April, put an end to the discipline of the project area of the curricular organization of secondary education, arguing that it should not be constituted as an autonomous discipline, but transversal to the curriculum, allegedly favouring the smallest workload of students in the last years of training. The same decree also defined the creation of the Civic Training discipline for the 10th year.

In January 2012, the National Federation of Education (FNE) opposed the elimination of the subject of Civic Training, highlighting its “pertinence throughout the academic and life course of students, (...) particularly in areas as significant as self-knowledge, vocational development, critical thinking and divergent thinking.”

In February 2017, the document “Profile of students leaving compulsory education” was created. This document describes 10 key competences that the student must acquire during compulsory education and emphasizes interpersonal relationships, personal development, and autonomy.

The following year, Decree Law 54/2018 was created with the aim of responding to the diversity of students' needs, by increasing everyone's participation in learning and in the life of the school community.

Currently, there is a Discipline of Education for Citizenship which, not being imposed as a compulsory subject, gives schools the possibility to decide on its offer as an autonomous subject, in the 1st, 2nd and 3rd cycles of basic education. In this way, education for citizenship can be developed according to the specific needs and problems of the educational community, in articulation and in response to the objectives defined in each educational project of school grouping or non-grouped school. The topics covered in this course are: education for human rights; environmental education/sustainable development; road education; financial education; consumer education; entrepreneurship education; education for gender equality; intercultural education; development education; defence and security education/peace education; volunteering; media education; European dimension of education; education for health and sexuality. In addition to the work done in this discipline, there are also numerous programs for the prevention and promotion of socio-emotional skills available that can be implemented in schools or groups of schools.

On May 24, 2022, the Ministry of Education presented the report of the study “School Observatory: Monitoring and Action | Psychological Health and Well-being” (Matos et al., 2022), with the aim of collecting and monitoring indicators of psychological health and well-being in Portuguese schools. This report

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recommends the “urgent definition of an integrated strategy to promote socio-emotional skills and psychological health from schools” including:

1. The explicit learning of socio-emotional skills, along with their curricular infusion, in a transversal and longitudinal model;
2. Learning socio-emotional skills in informal learning contexts;
3. The implementation of interventions that promote well-being and psychological health, starting from pre-school education;
4. Valuing student participation;
5. Promotion of healthy school climates;
6. Commitment to the development of socio-emotional skills of teachers and principals, as well as other stakeholders in the school ecosystem;
7. Positive disciplinary management;
8. Strengthening support for learning and inclusion;
9. The establishment of a monitoring/evaluation system for these indicators;
10. The creation of authentic partnerships with families and communities, based on the good experiences recorded on the ground;
11. The introduction of the promotion of socio-emotional skills and self-care in the initial training of future educators and teachers

2.5. SEL PRACTICES IN PRIMARY SCHOOLS IN ROMANIA

2.5.1. General Overview

2.5.1.1. Organisational framework (legislation)

The values promoted in the Romanian educational system are an integral part of the response that education offers to the challenges of the contemporary world. These values equally reflect the culture and spirituality of the Romanian people and are meant to guide the management of personal life (health, fulfilment and personal development), to promote a sustainable lifestyle, oriented towards success, active citizenship, social inclusion, entrepreneurship and integration into the labour market.

In the Romanian Educational Law, in Art. 68 are mentioned in the eight domains for the key competencies that determine the students’ training profile. The 3rd and 4th paragraphs refer to primary education, ICT and the preparatory class:

”(3) ICT is an optional subject for students from 1st to 4th grades and is a compulsory subject in middle and high school education.

(4) The curriculum for the preparatory class (before 1st grade) aims at physical, socio – emotional development, cognitive development of language and communication, as well as the development of skills

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and attitudes in learning, while ensuring the bridges to the development of the 8 key competences " (LEN 1/2011).

Primary school in Romanian educational system

Primary Education is organised through a curriculum[2] with framework plans for primary, secondary and non-university tertiary education. The framework plans group the study disciplines on seven curricular areas established in accordance with epistemological and psycho-pedagogical principles:

1. Language and communication
2. Mathematics and Natural sciences
3. Man and society
4. Arts
5. Physical education, sports and health
6. Technology
7. Counselling and guidance.

The curricular area is a group of study disciplines that have in common concepts and methodologies and that offer a multi - and / or interdisciplinary vision on the respective study discipline. The organisation by curricular areas constitutes a generating framework of the curricula, which:

- reflects epistemological and psycho-pedagogical features of the fields they target, in terms of: approach of knowledge, specialized didactic;
- offers the possibility to integrate the disciplinary didactic approach in an interdisciplinary framework;
- ensures the continuity and completeness of the teaching process throughout the school year of a student. Starting with primary education, the curricular areas are the same for the whole compulsory and post - compulsory schooling, but with a variable weight by cycles of education and by classes.

The discipline is a field of the curriculum, epistemologically cut from a field of knowledge, from the perspective of basic competencies that must be acquired by the students. These competencies relate to the aims specific to each level of study and to the graduate training profile.

For primary and secondary education, the structure of the framework - plans include:

- common core, as a compulsory curricular offer at national level, consisting in specific subjects with the same time allocations to be covered by all students enrolled in the same type of programme;
- curriculum at the decision of the school (CDȘ), which includes the number of hours allocated for each school to choose different disciplines for each class in order to complete its curriculum.

The implementation of the framework - plan in the educational institutions is done through time schedules. The timetable schedule represents a customization of the framework - plans at the class level. This

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represents the way in which at the level of a school each class establishes its own program according to the options provided by the framework - plans. For primary and secondary education, the timetable includes:

- common core subjects with appropriate time allocations;
- optional subject (s) with appropriate time allocations, according to the opinions expressed by students and their parents.

"*Learning is the organised, directed activity of acquiring knowledge of skills and abilities in order to develop personality and cognitive information*" (Almășan & Dumitrache, 2020)

The National Curriculum

The national curriculum (CN) promotes values that each person internalises and demonstrates in their personal, social, and professional life:

- Respect - for itself, for others, for human rights, for diversity, for the environment;
- Responsibility - for his own behaviour and actions, conscious assumption of social responsibilities;
- Innovative spirit and creativity - openness to change to the implementation of creative ideas through innovative solutions, the generation of new ideas and behaviours;
- Excellence - the aspiration for performance and results in accordance with each child potential;
- Integrity - honesty, responsibility, ethical attitude;
- Active citizenship - solidarity and participation for the common good;
- Critical thinking - developing critical thinking, autonomy and reflexivity;
- Perseverance - patience, perseverance and tenacity in work, beliefs and attitudes;
- Resilience - adapting in a positive way to unfavourable situations and overcoming challenges.

The framework – plans and school programs are components of the National Curriculum and are implemented after a series of stages including design and approval. The National Curriculum is updated periodically (under the influence of different factors) aiming at generating change in the educational content. The different factors can be legislative changes concerning the structure of the pre-university educational system, the need for lifelong learning reported to students' competences. Depending on the nature of the factors, the aimed change that result can be small- or large-scale change. The curriculum documents become operational at school and class level.

The aims of the general mandatory and post mandatory education derive both from the educational ideal and from the guidance set out in the National Education Law on the training, development and key competences:

- literacy skills;
- language proficiency in several languages;
- mathematical competence and competence in science, technology and engineering;
- digital competence;

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- competence of personal, social development and learning to learn;
- civic competence;
- entrepreneurial competence;
- competence of cultural awareness and expression.

2.5.2. Socio emotional learning in Romania

2.5.2.1. SEL in scientific literature

Romania has placed a strong emphasis on children's social-emotional development in the past ten years, especially on issues regarding better emotion management in the sense of achieving a much desired wellness or wellbeing state. The results of these efforts can be seen in the nationwide school curriculums for the second grade (ages 8-9) where the subject of Personal Development is taught and the one for the fifth grade (ages 11-12) where the subject of Counseling and Personal Development is taught. Specialised literature on the subject dates from the year 2010 and features such publications as "Dezvoltarea competențelor emoționale și sociale la preșcolari. ghid practic pentru educatori" (Tr. Developing emotional and social competencies in preschool children, a practical guide for educators) and "Dezvoltarea competențelor emoționale și sociale la preșcolari. ghid practic pentru părinți" (Tr. Developing emotional and social competencies in preschool children, a practical guide for parents) by authors Catrinel A. Ștefan and Kállay Éva. The two works refer to the development of preschool children. These specific guides rely heavily on developing children's emotional awareness and regulatory emotional abilities as a core competency for an appropriate emotional development. Within this framework, the issues of understanding the other's emotions or developing empathic abilities are also brought up as essential aspects of conflict resolving. The social competencies part however, refers to interpersonal relationship skills where children aptly understand social contexts and follow social rules as well as envision adequate problem solving methods and intrapersonal relationship skills where the manage frustrations and internalise the social order.

Ann Vernon (2004) is a predecessor to these ideas and one of the foreign books translated to Romanian. Here we find notions of rational-emotional and behaviour development that target primary school children. The books consist of a variety of activities for children designed at developing competencies such as self-acceptance, understanding emotions, understanding convictions and behaviour, problem solving and decision-making and interpersonal relations.

The aforementioned books were published by the Romanian Association of Cognitive Sciences, a publisher that is dedicated to promoting the latest developments in psychological practice, both national and

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international, and more specifically publishes books on inner life, education, culture and counselling practices.

The more recent publications (2015-2022) produced both locally or translated deal extensively with children's emotional development of a variety of ages and stages of development from a social point of view. In "Inteligența emoțională în educația copiilor" (Tr. Emotional intelligence in children's education), one of the translated books by Elias, Tobias & Friedlander (2019) the focus is fostering emotional intelligence through self-guidance and self-development and developing social aptitudes through encouraging self-control, responsible action, and communication with parents.

"Dezvoltarea inteligenței emoționale a copiilor" (Tr. Developing Emotional Intelligence in Children) (Lantieri, 2017) another translated book offers several exercises for children on how to relax the mind and help children achieve better emotional control and relieve stress. The 4 exercise chapters are designed for ages 5-12 years old with one of them offering a few preliminary tips before they actually take place. The last chapter ties everything in with what one hopes to achieve as a result of these internalised practices and their outcomes - getting children ready to lead the world and achieve a state of wellbeing.

The "Strategii de prevenție a problemelor de comportament (Tr. Strategies on preventing behaviour problems) book by Oprescu, Baban & Benga (2015) also deals with the building block of emotional development in children. Here, SEL skills are employed in the context of both prevention of behaviour problems and intervention when it comes to this particular situation.

In "Educația emoțional-afectivă. Noi explorări, noi strategii" (Emotional-affective education. New explorations, new strategies) by Ioan Neacșu and Mihaela Suditu acknowledge the importance of social-emotional health and development of both preschool and children in higher grades in the first part of their ample paper on affective education.

As for the current practices at a national level, below there is an overview of how the five SEL skills are presented and taught in schools based on the recent 2022 published manuals.

The second-grade manual designed for Personal Development has 8 units: Me and those around me, Personal Hygiene, Our Emotions, Efficient Communication, Simple Relations with Familiar Objects and Beings, Time and our Daily Schedule, Organising Learning Activities, Exploring the Occupations. It is perhaps very clear from the titles that they deal with the five SEL skills more or less. Self-Awareness (Personal Hygiene, Our Emotions), Self-Management (Time and our Daily Schedule, Organising Learning Activities), Social Awareness (Simple Relations with Familiar Objects and Beings), Relationship Skills (Me

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and those around me, Efficient Communication) and Responsible Decision-Making (Exploring the Occupations).

The fifth-grade manual designed for the discipline Counselling and Personal Development picks up where these issues were left off in second grade and consists of 4 units (Self-knowledge and a healthy lifestyle, Social-emotional development, Learning management and Career management). The Social-emotional development unit is also subdivided in four parts as such Talking with our emotions where children learn what the basic emotions are (Happiness, Anger, Sadness, Amazement, Fear and Disgust), the Alphabet of Emotions helps children in expressing them and to learn how to recognize them in others, An emotion Atlas where children are invited to reflect on bodily reaction to negative emotions and conflicts and the Importance of words where children learn how to communicate with others and voice their opinion in a proper manner.

2.5.2.2. Projects and initiatives to promote SEL in Romanian educational system

The interest for SEL is increasing in the Romanian educational system as the number of initiatives promoting SEL, at macro and micro level. Most of these are projects that raise awareness on socio-emotional learning and offer training to teachers while other initiatives are organised at national level and generate more deep change in adopting SEL in a policy framework at national level. In the last years socio-emotional learning and student well-being have become priorities, especially due to the pandemic context. One relevant action was the publication of a guide for school counsellors on “Programs and counselling activities for the development of students' socio-emotional competencies”, with three components (for primary, secondary and tertiary education) and specific examples of activities, programs for developing SE competencies. More than 70 examples and activities are organised on five dimensions of social emotional learning.

“Educated Romania” project (Romania Educata, 2022)

This project started in 2018, it was proposed and supported by the Romanian Presidency and the priority areas, targets, objectives and directions of action are clearly identified. For the implementation of this project it is necessary to develop a legislative package, so that public policy documents, reports and associated actions to substantiate the legislation of a new model of governance in education. The expectation of this legislative framework is to be able to respond to the educational and economic needs of a modern, global, competitive, highly technological and digitised world (www.edu.ro , 2022).

SEL is one dimension approached in this project at least in preschool education, warning about the need for teacher training in this area.

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"A voice for education" (https://cdn.edupedu.ro)

This initiative reflects the need of organising and updating the legislative frame, to contribute to the modernization of education in Romania, in accordance with the European space. The project covers different topics related to the development of pre-university education including SEL:

1. Teaching career and career of teachers,
2. School management and governance of the education system,
3. Financing,
4. Curriculum (curricular approaches to support the development of relevant skills in today's society - literacy, STEM and SEL- social and emotional learning),
5. Assessment of learning outcomes,
6. Functional literacy,
7. Inclusive education,
8. Digitization,
9. Dual education
10. Infrastructure.

SEEVAL - Social and Emotional Education Building Inclusive schools and Ownership of Values (https://seeval-project.eu)

This is an Erasmus + project with international collaboration between different organisations from Bulgaria, Italy, Malta, Austria, Greece and Romania through the National Centre for Policy and Evaluation in Education (NCPEE). The aim of the project is to design training courses and protocols of action for a whole school approach in implementation of Social and emotional education (SEE). The resources created are offered freely accessible (as OER) educational practices for social and emotional learning, on each SEL dimension. It is a three years' project (2019 – 2022) and project activities are focused on students in middle school and in the beginning of high-school education (10–16 years' old). Students with special educational needs and at risk are also part of the beneficiary.

HumanKind

The socio-emotional education program – SEL, through which teachers will be trained to support students in the optimal development of socio-emotional skills (https://ave-romania.ro/humankind/)

It is a program of social emotional learning, based on scientific techniques in the fields of neuroscience, positive psychology, socio-emotional learning (SEL) and mindfulness. It was developed by Romanian NGO (AVE – Asociația pentru Valori în Educație), and targeted:

- 12 public schools in and 10 Romania;
- 60 teachers and 12 school principals from 11 counties, involved in the project

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- 4 training sessions mentoring sessions with specialists for 16 months.

The specialists are training teachers in terms of awareness and understanding of their own emotions, but also how they can be applied in working with students, concepts such as understanding the relationship with oneself and others, responsible decision making or emotional self-control.

EduStart

It is a platform for assessing socio-emotional skills in students in the context of learning. Teachers, managers or people who support training programs for students, can create an account on the platform and test for free the level of development of future skills in the students you work with.
The main purpose of this platform is to assess students' socio-emotional skills.

Self Kit (http://selfkit.ro)

It is a psychological and educational counselling program based on the principles of Rational Emotional and Behavioural Theory (REBT / TREC). The aim of the program is to develop social emotional competencies, preventing affective and behavioural disorder to children and teenagers, therapy of emotional dysfunctions. The training courses are directed to psychologists and school counsellors, clinical psychologists, teachers, parents, and grandparents, and are conducted using the blended learning approach.

2.5.3. General Overview Teaching methods and techniques

"In the current context (COVID pandemic 19) talking about technology, counselling and communication is a necessity. Academic counselling is a necessity for the educational environment, both university and pre-university. Life in general during this period has been and it is a challenge. Keeping our physical distance, the facial mask, the presence of the survival backpack (disinfectant, antibacterial wipes, etc.) are part of our present life but the question is How does all this affect our long term life and how do we each respond to this physical isolation / distancing?

Also the use of information and communication technologies (ICT) during this time into an increasingly digitised educational environment are subject to further challenge us during this period, but did the technology manage through all communication platforms and applications to meet individual and groups educational needs?" (Almășan, 2021). We are still so close and so sensitive to this event, therefore it is necessary to take into account this way of conducting education during the pandemic, in future education plans.

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The methods and techniques as also digital applications used in the class and the adapted teaching methods makes us say that the two components "were born" from world events - PANDEMIC! In Romania the use of didactics and innovative pedagogies as an approach for learning became in a significant measure a current practice in the public-school space as well as in the private schools. Interactive teaching strategies promote active learning, involve sustained collaboration between students who work together (organised in micro-groups) to achieve predetermined goals. The teacher is not the informational messenger but takes the role of organiser, facilitator, and mediator of learning activities. The didactic approach is designed so that it no longer focuses on the teacher, but on the student and the teacher becomes the organiser of a learning environment adapted to the particularities and the needs of the beneficiaries, facilitating the learning process and skills development.

The premises for the use of methods in the current training systems must be related to the connection between the three components of the educational process: teaching - learning - assessment, and learning theories, which are the foundations of training systems. Training means how to select, arrange, balance, connect and put into practice the following four categories of components: 1) Training objectives 2) Contents 3) Strategies and methods 4) Evaluation (Boncea, A., 2016)

Theoretical approach of school intervention

The constructivist approach,

Constructivism is an educational theory and practice that analyzes learning processes from the perspective of the learner. According to theory, the process of knowledge is not a passive one, but actively constructed by the learner, and the function of knowledge is adaptive and serves to organise an experiential world. Rooted in the learning concept of John Dewey and Jean Piaget, the constructivist theory encourages the child to rediscover the laws of the universe and recompose the history of science from previous experiences, whilst the teacher's roles are to motivate the child to build his own knowledge and to build "cognitive conflicts" that facilitate learning. Lev Vygotsky takes the step towards social constructivism, in which the social contexts of learning, especially the teacher-student relationship, acquire a special importance.

For example: Description of key competencies by level (elementary, functional and developed). At the end of the 4th grade, the students will be able to:

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Level / competence	Elementary level (at the end of the 4th grade)
Digital competence	-Intuitive and spontaneous expression of emotional states experienced through the interaction with digital applications and devices - Use of simple functions and applications to express in a personal and original way emotions, feelings, events, concrete life situations in familiar contexts
Learning how to learn	- Checking the learning activity and result together with the teacher in order to identify areas for improvement, awareness of one's own preferences, interests and emotions in learning, development of self-esteem, confidence in one's own potential for success

Description of key competencies, adapted from Annex1 - Description of key competencies by levels (elementary, functional, and advanced) – Landmarks for national curriculum design, update and evaluation (https://www.edu.ro/sites/default/files/DPC_31.10.19_consultare.pdf)

Key competencies are considered equally important for a fulfilling and successful life in the knowledge society. They apply in a variety of contexts and in a variety of combinations, are interconnected and intertwined giving the fact that some components of specific competencies are supported by other components of other competencies. High-level skills such as critical thinking, problem solving, negotiation, creativity, analytical and intercultural skills are included in all key competencies.

In the context of the European Qualifications Framework:

- knowledge is described as theoretical and / or factual, and is defined on several levels, being expressed by the following descriptors: knowledge, understanding and use of specific language, explanation and interpretation;
- skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). Skills can be expressed through the following descriptors: application, transfer and problem solving, critical and constructive reflection, creativity and innovation;
- attitudes are the proven ability to apply knowledge and skills autonomously and responsibly. In the context of the European Qualifications Framework, the attitude describes the way in which the learner relates to his / her own activity, mainly from the perspective of responsibility and autonomy.

The training profile of the 4th grade graduate refers to:

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1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical skills (A) and basic skills in science and technologies (B)
4. Digital competence
5. Learning how to learn
6. Social and civic competences
7. Spirit of initiative and entrepreneurship
8. Awareness and expression.

Competence	Description
Digital competence	Using simple functions and applications of digital devices in the immediate environment, with adult support Developing simple digital content in the context of learning activities Compliance with basic rules on safety in the use of devices, applications, digital content and on the internet.

Example, the profile of the 4th grade graduate. Adapted from Annex1 - Description of key competencies by levels (elementary, functional and advanced) – Landmarks for national curriculum design, update and evaluation (https://www.edu.ro/sites/default/files/DPC_31.10.19_consultare.pdf)

"The community and the school to which the child and the parent belong represent the place where we meet traditions and customs that define us. We share common values and we train at a local level, communities of parents, children, teachers, etc. Suddenly the community shares impressions, emotions, opinions only using social media."

(https://drive.google.com/file/d/1H8jC6A45uzQ7lK273ejy14t6MaQsoD0d/view)

In order to be effective, online teaching-learning methods must relate to all the resources involved:

- the human factor (availability and skills of the teacher -and students, age of students, number of participants);
- content to be taught / learned (study discipline, level of difficulty, amount of information);
- time factor (duration of the entire activity, duration -at any time, time allotted for opening and closing the activity);
- the devices used by the teacher and the students, the platform's features and limits

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In addition to the traditional teaching methods according to -Cerghit (Cerghit, 1976), oral and written communication, methods based on immediate contact with reality and its substitutes, action-based methods, a number of active a number of active-participatory methods are used nowadays, some with special value in teaching, others especially in learning and assessment.

By using the features that some platforms offer (assigning students to workrooms - -online correspondence of teamwork; the ability to share the screen so that all participants can see a document, a presentation, etc., and the ability to share documents from cloud, so that all participants can view or edit them in real time, etc.), we can adapt a number of active-participatory methods. Starting from the selection made by Negreț - Dobridor and Pânișoară (Negret-Dobridor, Panisoara, 2005), recommend:

- *icebreaking games* - very good for the beginning of the activity and the integration of students in lesson, very useful in the case of new groups of students; it can be assimilated to the moment of capturing attention (for example, a poll / survey about how students feel, how they spent the weekend / holiday, what they read before, what music they prefer or how long it took them to solve a certain task, what difficulties they encountered during the performance of a task, etc.);
- *role-playing games* - facilitate the interweaving of personal factors with situational factors, ideal for consolidation -and learning; students can receive a role before the online meeting. For example, for teaching a literary text, the roles can be: the author, the main character, one of the secondary characters, a literary critic, a director who intends to picturize the text, etc.; in a recap for mathematics-, the students can interpret a famous mathematician to present his theory; in history, everyone can play the role of personalities involved in historical events and explain their position, etc.;
- *the plus and minus technique*, which facilitates peer learning and collaborative learning, can be successfully applied online, students work in pears and make two lists - one with the pluses, the other with the minuses on the knowledge they have at the end of a learning unit; the lists are available to all students and based on them the teacher can form new groups or teams more balanced;
- *the jigsaw can be applied online* using a presentation tool - each team receives a page / slide to work on, in a specific order; at the end, the teacher runs the presentation, and everyone has an overview of the topic addressed; the same model can be used in the technique of journalism / newspaper writing;
- *the method of thinking hats* (*Six Thinking Hats Method* - Edward de Bono, 1985) favours the development of thinking strategies and is recommended in sequences of consolidation and deepening learning; working in teams of six students can each receive a hat to be used in analysing a given topic or, -forming six teams, each team works under a hat; some e-learning platforms allow students to be grouped into teams; however, the method must be applied taking into account the stages of thinking, according to Piaget's theory;
- *the "found objects" technique,* adapted for online, requires students to present an object in their immediate vicinity that is related to what is being taught and to explain the connection between them; the technique favour the transfer of knowledge;

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- *gallery tour* - is an appropriate method for learning and assessment; online, students can present the results of the team work in several ways: a team member distributes the screen to present the project (document, poster, etc.) and team members collaborate through verbal interventions, colleagues ask questions and write in chat (available for all online platforms) their proposals, suggestions, opinions; another option is for all the projects to be included by the teacher in a presentation tool and as he or she runs the presentation, each team presents the project, and colleagues also ask questions.

Therefore, we can conclude that it is necessary to highlight in our relationships with students the non-cognitive skills. The "Taxonomy of Affective Objectives" (developed by Krathwohl - see Viviane De Landsheere; Gilbert De Landsheere, 1979) defines five general non-cognitive competencies from which several non-cognitive competencies are derived. The teacher can relate to each of these competencies during the educational process.

1. Non-cognitive receiving of pedagogical message, through a) affective - motivational awareness; b) voluntary employment; c) directing attention.
2. Non-cognitive answer to the internalized pedagogical message, through a) motivational assumption; b) voluntary employment; c) positive emotional involvement;
3. Non-cognitive valorization of the received and internalized pedagogical message, through a) affective assumption; b) motivational support; c) acceptance at character-level;
4. Non - cognitive organization of the received pedagogical message, internalized and valued, by a) assuming a dominant value of the pedagogical message at character- level; b) ordering the essential values of the pedagogical message at a character-level;
5. Non-cognitive characterization of the pedagogical message received, internalized, valued, organized, by a) establishing the values of the pedagogical message at the level of character attitude; b) the generalization of the pedagogical messages' value, at the of conception about the world, completely internalized, cognitively (logically, rationally) and non-cognitive (character).

This taxonomy can be capitalized in the specific context of each discipline and level of education, each psychological age and school. Even if specific "affective" goals / competencies cannot be operationalized in the same way as cognitive and psychomotor, they provide the teacher with an open methodological framework for exercising his emotional empathy and motivation, necessary in the construction of any effective pedagogical message. (Cristea, 2018).

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2.6. SEL PRACTICES IN PRIMARY SCHOOLS IN TURKEY

2.6.1. General Overview

In parallel with the developments in the world on social-emotional learning, the concept of social-emotional learning has been included in academic research since the early 2000s in Turkey. Researchers pointed out the importance of social-emotional learning at school (Türnüklü, 2004).

When examined the scientific articles it is seen that limited number studies which made in 1st class (Diken, Cavkaytar, Batu, Bozkurt, and Kurtılmaz, 2011), 2nd class (Obalar, 2009; Diken, Cavkaytar, Batu, Bozkurt, and Kurtılmaz, 2011), 3rd grade (Bilek, 2009) ,4th grade primary education (Baydan, 2010; Esen-Aygün and Şahin-Taşkın, 2022), 5th grade (Çapan, 2006). In addition, some measurements tools were developed for primary school students' SEL skills (Esen-Aygün & Şahin-Taşkın, 2018; Baydan, 2010). These measurement tools, which have been brought into the national literature, are important in terms of measuring and evaluating the level of social-emotional skills in Turkey. Also a limited number studies published related to pre-service primary teachers' views on SEL (Esen-Aygün & Şahin-Taşkın, 2016), primary teachers' views on SEL (Esen-Aygün and Şahin-Taşkın, 2017), teaching programs are examined within SEL skills (Esen-Aygün, 2019; Esen-Aygün and Şahin-Taşkın, 2021).

The first systematic study on social-emotional learning in Turkey is the Emotional and Social Development course. The Emotional and Social Development Course was implemented as a result of the "Education of Gifted People Project" in the 2002-2003 academic year, with a protocol signed between the Ministry of National Education and Istanbul University (Hasan Ali Yücel Education Faculty). The project started in 2002 with 12 gifted and gifted first-year students with 12 normal mental potentials. Until the completion of the project, 24 new first students continued to be admitted each year. Within the scope of the project, students identified as gifted and talented and students with normal mental potential were given education in the same environment, and all students were provided with an education opportunity suitable for their readiness level, interests and learning profiles.

The Emotional and Social Development Curriculum has been developed and put into implementation by the Turkish Ministry of National Education [MoNE] in 2012. The curriculum aimed students from 1st grade to 8th grade to develop social-emotional skills such as understanding and expressing themselves well, empathizing to solve problems, etc.

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However, this curriculum has been developed as part of the 'Education of the Gifted Students' project started through the protocol signed by Istanbul University, Hasan Ali Yücel Education Faculty and the Ministry of National Education. The project aimed to meet the gifted students' social-emotional needs. Based on this aim, gifted and talented students and students who are not gifted and talented received an education in the same environment. Accordingly, it was emphasized that the curriculum developed would improve non-gifted students' social-emotional learning skills (MoNE, 2012). Implementing the curriculum revealed that the curriculum did not improve non-gifted students' social-emotional development (Esen Aygün, 2017). Then, the implementation of the curriculum has been cancelled by 2018.

TUSIAD published a report in 2019 with the theme "Social-emotional learning: Key to Work and Life Competencies on the Verge of the New Industrial Revolution", drawing attention to the fact that social-emotional learning is a lifelong learning skill. The report, which deals with social-emotional learning in its historical context in Turkey and the world, offers suggestions that will shape the direction of future social-emotional learning studies. The awareness that will be created in the society with the inclusion of SEL skills in the general educational objectives of the MoNE, will enable it to be implemented on a local and school basis. TUSIAD report comprehensively explains the importance of social-emotional learning. In the report, it is emphasized that the issues regarding the social-emotional learning should be handled within the scope of the general objectives of the Ministry of National Education, so that social awareness will be provided. The report also looked at social-emotional learning from the perspective of business and industrialization. Accordingly, it is stated that social-emotional learning must be addressed in formal and non-formal education. Based on the necessity of social-emotional skills in business life, as stated in the TUSIAD report, it is understood that these skills are an indispensable part of lifelong learning. Underlining that social-emotional learning should be systematically addressed and included in school curricula in Turkey, the report provides significant evidence in terms of the recognition of the concept of social-emotional learning by individuals other than educators and its handling beyond academic research.

In line with the developments in social-emotional learning in the world and Turkey, the Board of Education has reconsidered social-emotional learning in 2020. There is also a model proposal in the study, in which the committee, which deals with social-emotional learning with a very broad perspective within the scope of OECD, WHO, Big Five, CASEL and 21st-century skills, presents a situation analysis from the past to the present (Erdeve & İnci, 2020). The Board put forward a new model by focusing on the current view of the teaching of social-emotional learning skills in our country in line with the values and competencies included in the curriculum of the MoNE with the National Education Basic Law No. 1739 and the 2023 Education Vision Document, is a nationally important one shot. The model called Kite Model aims to raise children's

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feelings and desires through healthy living skills, communication skills, research and learning skills, production skills and cooperation skills, and to raise them as "productive, active, well-mannered and thinking" individuals.

Kite model consisting of local elements is seen for the concept of social-emotional learning, which is now used universally, which is also expressed in the study in which the model is presented, taking into account the structure and values of the Turkish National Education. It is thought that this model is important in terms of accepting and giving importance to the concept of social-emotional learning by the Turkish National Education system and, in parallel, taking into account social-emotional learning skills in the regulation of education.

Class Guidance Curriculum was published by the MoNE in 2020. Within the scope of this curriculum, social-emotional development is taken into account.

Within the scope of social-emotional development, students need to;

1. Acquire the knowledge, behaviours as well as attitudes to know themselves, understand and manage their emotions, and develop healthy interpersonal relationships,
2. Make decisions, setting goals, taking the necessary measures to achieve the goals and making efforts in this direction,
3. Ensure their safety and develop life skills.

For these purposes, the following competencies have been determined.

- Self-Awareness
- Understanding and Managing Emotions
- Interpersonal Skills
- Decision Making
- Ensuring Personal Safety

OECD carried out Social and Emotional Skills Study (SSES) in 2019. The study aims to measure the social-emotional skills of students in the 10 and 15 age groups. The age group of 10 in Turkey consisted of primary and secondary school students. Findings showed that students in the 10-year-old group had higher scores than the students in the 15-year-old group in almost all sub-skills of social-emotional learning. This study is

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important Since this is the first large-scale research that focuses entirely on social-emotional skills in our country as well as in the world.

Besides all these developments, social-emotional development has taken place in the early childhood curriculum put into implementation in 2013. However, today there is no curriculum has been implemented to develop primary students' social-emotional learning skills in Turkey (MoNE, 2020). Accordingly, a curriculum that considers primary students' needs regarding social-emotional learning needs to be developed.

2.6.2. Teaching Methods & Techniques Used

Social-emotional learning is expressed in the broadest sense as the ability to understand, manage and express a situation (SEL, 2003). In today's era of change, and especially with the effect of the COVID-19 epidemic, the importance of social-emotional skills often comes to the fore to meet the needs of individuals. At this point, school is the environment in which the individual is most socialized after his/her family, which has a critical importance for the development of this ability. Social-emotional skills can be guided by the teaching techniques applied at school. For this situation, drama, games, stories, projects and discussion techniques are used intensively. However, modernity is important in the teaching process. Accordingly, educators should keep teaching methods and techniques up-to-date and ahead of the times. Using innovative and contemporary teaching methods and techniques that support social-emotional development in the teaching process is necessary.

King et al. (2011) argue that learning-teaching processes that include activities such as discussions and peer teaching are effective in developing thinking skills. In addition, Thomas (1992) identified the characteristics of a classroom environment that would improve thinking skills as follows:

- reflect real-life situations and contexts,
- encourage collaboration between teachers, disciplines and students,
- encourage curiosity, exploration and research,
- encourage students to take responsibility for learning
- failure is seen as a learning opportunity,
- acknowledge not only performance but also effort.

Alternative assessment forms are taking the place of standardized tests in measuring and evaluating social-emotional acquisitions. At this point, teachers' observations and learners' efforts should also be taken into account (King et al., 2011)

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3- INTEGRATION OF COMPUTATIONAL THINKING WITH SEL

3.1. Computational Thinking

Throughout humanity, people have thought about thinking and have shown an interest in thinking. Mostly, the beginning of this interest is based on Ancient Greece, where the culture of questioning and dialogue was adopted. Another view on this subject points to the Age of Enlightenment, which emphasizes rationality and progress (Presseisen 1986). Today, thinking skills are frequently discussed due to modern technology and rapid change. Thinking emerges as a process that develops naturally in every individual from birth. It enables the individual to provide information through reasoning, analysis, problem-solving and decision-making processes (Nickerson et al., 1985). In the 21st century, technology has become an inseparable part of our lives and also directly influences the way of thinking of today's people. With the increase in the number of stimuli and the decrease in the attention span, it is essential for today's people to think in keeping with the present. Thus, teaching accurate thinking emerges as a need and is seen as a key competence. Education of thinking skills enables the regulating the increasing knowledge density in the rapidly changing world and turning it into a skill. It is thought that individuals will lead a more qualified life by systematizing and learning to think.

Computational thinking as a term was first used by Seymour Papert in 1980. Computational thinking is regarded as the process of systematizing effective thinking. It is a skill that plays a role in the process of identifying the problems encountered in daily life and producing solutions. Therefore, to develop an effective way to solve problems, it is necessary to use computational thinking (Wing 2011). Accordingly, through an effective way of thinking, students will be able to bring a cognitive order to the solutions to the obstacles they may encounter in their lives. Computational thinking includes skills that individuals use to overcome difficult situations. These skills are expressed as decomposition, abstraction, pattern recognition and algorithmic thinking. Decomposition is defined as breaking complex problems into smaller parts. Abstraction is identifying important information in a problem and ignoring irrelevant information. While pattern recognition is determining whether any of the problems or solutions, we have encountered in the past creates a pattern with other situations, algorithmic thinking is explained as determining the steps and rules to be followed to achieve the same desired result each time (Denning & Tedre, 2019).

Overall, computational thinking is the process of dividing and solving a problem into simple steps that even a computer can understand (Lu & Fletcher, 2009). Learning this way of thinking will help individuals develop themselves and help them to cope with complex problems in all areas of their lives.

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3.2. Computational Thinking Dimensions and Ideas: How to Integrate CT with SEL

3.2.1. Decomposition

3.2.1.1 Definition

Decomposition is the first skill to be discussed in the context of computation thinking. As a tributary notion to the act and activity of coding and via an inspired transposition of computer-enabled tasks onto human cognitive processes it's defined as a method for breaking down a complicated problem into smaller and more controllable parts.

Because this skill targets the task at hand and breaks it into smaller and manageable elements it is also known as the "Divide and conquer" technique, a reference to a strategy used by many historical figures for a number of complicated situations and proposes effective organisational solutions such as, after having decided which the smaller parts of the task are, they can each be efficiently assigned to a participant better equipped to deal with it as part of team activities. The skill also implies that the children using it will understand what elements of the task are immediate and which are not (but will have to be done afterwards).

Naturally, the ability to break situations into their most basic elements and thus more subject to one's control has far-reaching emotional outcomes. Exercising some form of introspection and thought organisation from an early age / as early as possible given each child's stage of development can make sense of a chaotic world and not be overwhelmed with seemingly complicated personal and social events.

Some examples of decomposition-based activities range from real-life tasks and activities to role-playing situations or more complex learning activities. Here are some examples of means of developing and strengthening social-emotional skills by making use of computational thinking through decomposition. Children as young as three can apply this concept to various extents, however, the following situations apply to children aged 9-11.

One of the examples can be Getting ready for school tomorrow, an activity that can be discussed in class. Out of the many situations a child can encounter during the day, one of the more important ones refers to how they prepare for the next day at school. At these ages, they have the ability to prepare, sequentialize and anticipate events and thus know the courses that they will have, the lessons and the homework needed to be completed. For example, every child has a school timetable or a class schedule where classes are organised in order by the days of the week. Let's say the child has 4 classes the next day: Math, Music, English Language and Physical Education. In order to get ready for each of those subjects, they have to

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break them down into what is needed for each and then arrange the backpack as such. Surely, the child will prepare course books and notebooks for each subject and will organise his/her time so that the homework for each will be done while noting that they will discard the course books used on that day unless they have the same class on the next day. He/she might also prepare special clothing or equipment for Physical Education. This is a very basic form of decomposition of a larger issue - Getting ready for school tomorrow - into these smaller tasks which imply that he/she will prepare the necessary items for school by subject, in sequence (as needed) and following a class schedule. Surely, a parent can help, but it is better to simply supervise and see that it is all done correctly and the child is confident that he/she is well organised for the next day at school, which will eliminate any anxiety of not being adequately prepared.

This simple activity, when practised as often as it should, improves SEL skills such as self-management, self-awareness, social awareness and responsible decision making.

As for activities that make use of decomposition in the classroom we can name Help Mike the Cat get to the milk bowl which requires children to work as a team in a context that requires them to understand how events are done in sequences and how to divide a complex task into a sequence of simpler actions. This task makes use of unplugged robotics through movement cards on a grid and can be found in the Handbook of Teaching Materials (2021).

Help Mike the Cat get to the milk bowl

- Step 1. To begin with, the teacher has to create a simple story where a character must move from a starting point to another, which could be read to the children (e.g. there is a grumpy cat, called Mike, that is grumpy because it is hungry! Mike wants to get to the bowl to drink the milk, maybe the children could help Mike?)
- Step 2. The children have to draw or to build with recycled material (i.e. plastic bottles, caps, cardboard etc.) or select a puppet of the main character (in our example: the cat) and the end-point (the bowl of milk).
- Step 3. Children place the created character (the cat) and the endpoint (the bowl of milk) onto two distant squares of the grid.
- Step 4. Children have to observe the position of the characters and then use the cards to code the movements of the character from the starting point to the endpoint.

Outcome

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This activity fosters social-emotional skills such as social awareness (of one's and other's role in the task), responsible decision making and relationship skills (in relation to the responsibilities of each participant and the fictional needs of the cat). It also facilitates teamwork, discussions and improved spatial awareness. The children come together to help Mike get to his bowl and understand that he has to do it one step at a time - this implies they will break down his path into the steps seen on the cards and create a viable situation in which Mike eventually gets his bowl of milk.

3.2.1.2. Examples of How to Implement

Decomposition is an approach that aims to break a complex problem into simpler parts that are easier to handle. The decomposition process consists of phases in which potential elements are classified (the essential elements and the relationships between the components are defined), strategies are determined to carry out the chosen decomposition, and the types of decompositions that are useful are repeated (Beecher, 2017; Selby & Woollard, 2013).

Before decomposition, a problem is defined as consisting of a single occurrence. The factors affecting the problem, and the results affected by the problem can be predicted or known, but the internal dynamics of the problem are not known. Decomposition divides the problem into its constituent elements to understand its intrinsic functions. Thus, not only the inputs and outputs of the problem can be defined, but also its internal components (Wing, 2006).

In computational thinking, problems are structural (dividing the problem into pieces to solve them separately), functional (understanding the function of performance for each situation), sequential (solving by determining the order of functional stages), and dependent (resolving over the link between parts). These pathways seem to be more functional for certain problem solutions. Thus, sub-problems can be defined better, and their solution can be managed better (Wieringa, 2009).

After deciding how to do the parsing, more than one strategy can be tried. For example (a) Means-end decomposition: starting from the very end to reach the expected solution, (b) Bottom-up decomposition: Understanding the relevant axis using specific components, (c) Multivariate decomposition: multiple variables meaning a single component, (d) Multi-level parsing: parse multiple same components, and (e) Comparative decomposition: explanation of sub-elements when comparing components (Rich et al., 2019).

While evaluation is made through social-emotional learning, the development of primary school students' ability to distinguish problems in schools will contribute to their cognitive and emotional abilities. It is an

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important achievement for students to be able to define problems not as an unknown closed box, but as small components divided into parts (Rijke et al., 2018).

For practice we highlight some examples how to introduce decomposition:

- When we taste an unfamiliar dish and identify several ingredients based on the flavor, we are decomposing that dish into its individual ingredients.
- When we give someone directions to our house, we are decomposing the process of getting from one place to another (e.g., city, interstate, etc.).
- When we break a course project into several steps, we are decomposing the task into smaller, more manageable subtasks.
- In mathematics, we can decompose a number such as 256.37 as follows: 2*102+5*101+6*100+3*10-1+7*10-2

3.2.2. Abstraction

3.2.2.1 Definition

Guttag (2013) defines abstraction as a process by which we preserve or suppress information. We preserve information that is relevant in a given context or suppress information that is not relevant so that we can solve a problem.

We use abstraction to organize things:

- A daisy is a flower, a flower is a plant, and so on.
- We see the “big picture” so we can reason without thinking about the details
- Transfer learning or learning by analogy

3.2.2.2. Examples of How to Implement

Wing (2006) introduced computational thinking as a universal skill for everyone to understand and solve human problems and behaviours by fundamental concepts of computing. Later, Wing (2011) provided a revised definition for computational thinking where it was conceptualized as a thought process underlying the process of formulation of problems and solutions in a way that an information-processing agent can effectively perform. There are important processes in computational thinking but one of them is highlighted as the most prominent one, namely abstraction (Wing, 2011).

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Abstraction refers to the process of deciding and preserving the relevant information and suppressing the irrelevant information in a given context (Wing, 2011). In short, it is the decision process of extraction in which details will be highlighted where the others will be ignored (Wing, 2008). By the abstraction process, attention is only given to the important details of the given problem or context (Washington et al., 2021). Therefore, abstraction provides the opportunity to handle complex situations (Wing, 2011).

The abstraction process is a product of the effort of solving real-life problems through information-processing agents, such as computers (Beecher, 2017). Real-life has a complex structure with lots of details which cannot be described to computers; thus, models are created for real-life experiences with selected important details and these models are described to the computers for solving problems (Beecher, 2017). Similarly, in real life, individuals have complex problems with endless details which make the solution more difficult. With abstraction, individuals can spend less time on unnecessary details in daily life and focus on a certain aspect of a subject (Wing, 2011). Hence, ignoring the irrelevant details and highlighting the necessary ones, namely, abstraction lay the foundation of computational thinking (Wing, 2008).

Integrating computational thinking into social-emotional learning may be promising. During problem-solving through computational thinking, individuals need to be mindful and develop important attitudes like embracement and tolerance of uncertainty, persistence, collaboration, critical thinking, and openness to learning experiences (McVeigh-Murphy, 2019). These attitudes individuals build in the computational thinking process may be quite rewarding for social-emotional learning, as well. Consistently, McVeigh-Murphy (2019) refers to computational thinking as a tool for improving the social-emotional skills of individuals. Moreover, McVeigh-Murphy (2019) provides some instruction suggestions for empowering the connection between computational thinking and social-emotional learning, such as encouraging curiosity and critical thinking, increasing communication and collaboration, discussing alternatives and problem-solving processes, and making informed decisions.

Each process in computational thinking may have unique contributions to social-emotional learning and its fundamentals. Considering the possible unique contributions of abstraction, it may be especially rewarding for responsible decision making in social-emotional learning. Responsible decision making consists of problem identification, social norm analysis, goal setting, and problem-solving (Payton et al. 2000). Thinking about this complex and comprehensive process, ignoring or suppressing the irrelevant details nature of abstraction (Wing, 2011) may facilitate a responsible decision-making process. Moreover, since abstraction requires a mindful process of self and environment to distinguish relevant and irrelevant parts in problem-

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solving, it may help individuals to increase both self-awareness and social awareness which are important fundamentals of social-emotional learning.

3.2.3. Pattern Recognition

3.2.3.1 Definition

Pattern recognition is presented from varied scientific perspectives, usually as a core task of computational thinking. It is also shown as recognition of patterns which recognize specific situations that are repeated (Rodríguez del Rey et al. 2021). In other words, pattern recognition will guide to make connections between similar problems and experiences. Pattern recognition occurs when we identify the arrangements and relationships between parts of a data set. If we want to find patterns in problems, we seek for which that are the same in each problem.

Pattern recognition is perceived as a key to identify causes and correlations which enable people allows make predictions (Andrian & Hikmawan, 2021). Pattern recognition helps recognize the characteristics within ideas and objects.

In the light of this understanding, objects can be sorted. Problems may be solved. As a result, pattern recognition determines rules for adding new objects to the particular group.

Pattern recognition can be used during all lessons. It helps in analysis, in economics, art, and literature and social life.

Manipulating patterns can be useful in education, for example, by studying patterns hands-on. Students observe the regularity of change. For example, a digital slider is a device for the math teacher.

Pattern recognition is crucial in metacognition when encountering new ideas. Regular reflection heps students to recognize patterns. It also helps them in approach to learning and avoid making the same mistakes over and over. Pattern recognition can be developed from early childhood in educational environment (Calderon, Crick & Tryfona, 2015).

Finding patterns is vital in making tasks easier and solving problems. The patterns which we analyze enable us to overcome the obstacles of problem-solving.

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3.2.3.2. Examples of How to Implement

Pattern recognition is one of the thinking processes of computational thinking that guides individuals to make connections between similar problems and experiences (Andrian & Hikmawan, 2021). It involves observing patterns and regularities in data. In this stage, students will be required to understand if there are similarities among and within problems. They will be guided through questioning, drawing as well as listening to sounds to recognize the patterns. The examples are as follows:

Questioning: The following questions will help them to identify the patterns:

Are there any patterns that you observe?

Do you notice any similarities between…?

Do any of the parts of this problem share qualities? Does anything repeat?

Do you see a pattern?

Does anything repeat?

What comes next?

What do these things have in common?

Which one is the odd one out?

How would you group these?

Drawing: The following examples can be used to identify the patterns:

Students can be provided with a worksheet that includes sentences explaining what happens in the story (or in the Decomposition phase they are required to write down what happened in the story and break it down into smaller sections).

Then, students are required to circle the sentences to address similar issues

Students can be provided with a worksheet that contains scenes of the story they watched, then they are required to identify the similar scenes through colouring.

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Sounds: Students are required to identify similar sounds (If applicable).

Other examples to introduce recognition of patterns in practice:

- when we checkout we seek for a registrar,
- patterns in traffic helps drivers whether and when to switch lanes
- in stock prices we look for patterns,
- to create theories and models, scientists use patterns.

We look for patterns when we are interested in avoiding repetitions in case of mistakes.

3.2.4. Algorithms

3.2.4.1 Definition

Algorithms and complexity

When first introduced the term C.T. Wing (2006), described as a way in which the learners think to solve problems. Continuing, in the spirit of Wing, Guzdial (2008) refers to C.T. as a way to think about the way we think on calculations, while Denning (2011) expanded the concept of C.T. so as to include the problems as information processes and their solutions as algorithms.

An algorithm is a procedure to solve a well-defined computational problem. The development and analysis of algorithms are fundamental for computer science: networking, artificial intelligence, databases, graphics, operating systems, security, etc.

Algorithm development requires an understanding of the alternatives available to solve a computational problem, including hardware, networking, programming language, and performance, it also requires understanding what it means for an algorithm to be “correct” in the sense that it fully and efficiently solves the problem.

The main memory of a computer (where the data is stored) is linear, consisting of a sequence of memory cells that are serially numbered 0, 1, 2….is the simplest data structure is a linear array, and an element’s value is accessed by its unique index.

An array can be used, for example, to store a list of names, and efficient methods are needed to efficiently search for and retrieve a particular name from the array. Many algorithms have been developed for sorting and searching lists of data efficiently.

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For example, sorting the list into alphabetical order permits a so-called binary search technique to be used. This search technique is similar to searching a telephone book for finding a particular name.

If knowing that the book is in alphabetical order allows one to turn quickly to a page that is close to the page containing the desired name. Many algorithms have been developed for sorting and searching lists of data efficiently.

Algorithmic Thinking Definition

Algorithmic thinking is a derivative of computer science and coding. This approach automates the problem-solving process by creating a series of systematic logical steps that process a defined set of inputs and produce a defined set of outputs based on these.

Algorithmic thinking is not solving for a specific answer; instead, it solves how to build a replicable process – an algorithm, which is a formula for calculating answers, processing data, or automating tasks.

Algorithmic Thinking Examples

If you are like me, examples can help conceptualize how algorithms operate and what they are capable of doing. Here are three examples that cover algorithms in basic arithmetic, standardized testing, and our good ol' friend, Google.

Algorithmic Thinking in Long Division

Without having to dive into technology, there are algorithms we teach students, whether or not we realize it. For example, long division follows the standard division algorithm for dividing multi-digit integers to calculate the quotient.

The division algorithm enables both people and computers to solve division problems with a systematic set of logical steps, which this video shows. Rather than having to analyse and parse through these problems, we are able automate solving for quotients because of the algorithm.

Algorithmic Thinking in Standardized Testing

A somewhat recent development in standardized testing is the advent of computer adaptive assessments that pick questions based on student ability as determined by correct and incorrect answers given.

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If students select the correct answer to a question, then the next question would be moderately more difficult. But if they answer wrong, then the assessment offers a moderately easier question. This occurs through an iterative algorithm that starts with a pool of questions. After an answer, the pool is adjusted accordingly. This repeats continuously.

The purpose of this algorithmic approach to assessment is to measure student performance in a more targeted way. This iterative algorithm isn't just limited to standardized tests; personalized and adaptive learning programs use this same algorithm, too.

Algorithmic Thinking in Google

Have you ever wondered why the chosen results appear for a query as opposed to those on the second, third, fourth, or tenth pages of a google search?

You guessed it! Google's search results are determined (in part) by the PageRank algorithm, which assigns a webpage's importance based on the number of sites linking to it. In other words, the algorithm looks at hyperlinks to a webpage as an upvote.

So, if we google 'what is an algorithm,' we can bet that the chosen pages have the most links to them for the topic 'what is an algorithm.' It's still more complicated than this, of course. PageRank also looks at the score for the site that is linking to the webpage to rank the authority of the link. And there is still much more; if you are interested, this article goes into the intricacies of the PageRank algorithm.

What can we take away from this? There are over 1.5 billion websites with billions more pages to count, but thanks to algorithmic thinking we can type just about anything into Google and expect to be delivered a curated list of resources in under a second. This right here is the power of algorithmic thinking.

Design Thinking Definition

Design thinking is **a user-cantered approach** to problem solving. Applying this technique enables us to take on vague and open-ended problems that don't have a defined output.

Design thinking starts with asking: 'why is this a problem?' The process ends with a deliverable of sorts, whether technological or constructed with tape and paper. Rather than being a replicable approach like computational thinking or algorithmic thinking, design thinking is conceptual, and its outputs are unique.

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The **design thinking** process contains the following steps:

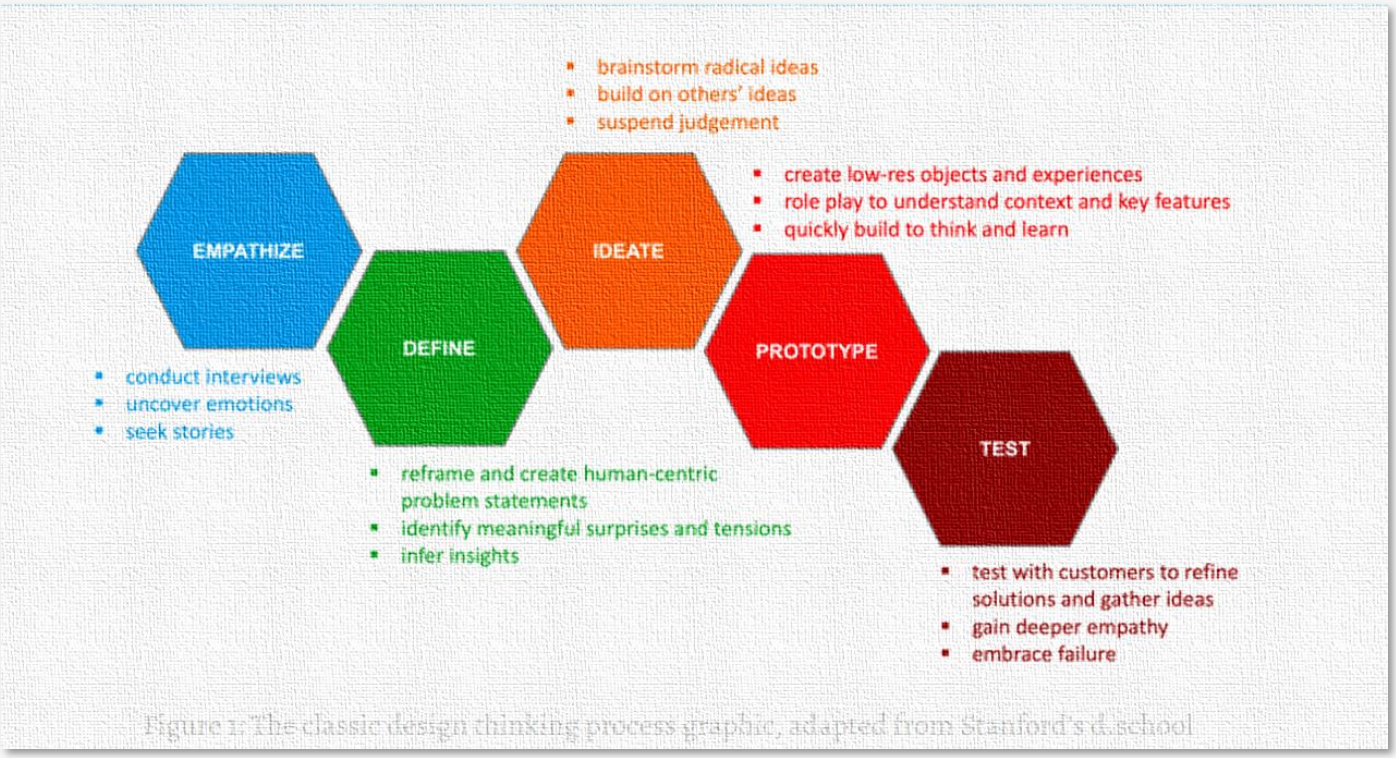

Figure 1: The classic design thinking process graphic, adapted from Stanford's d.school

empathize, define, ideate, prototype, ideate, and test (plus improve).

Empathize: Research the needs of the user to understand why they have the problem and identify their pain points.

(re)**Define:** Specify and articulate the problem based on feedback from the empathize phase.

Ideate: Strategize different ways to solve the problem that fit the user's needs.

Prototype: Build models of sample solutions.

Test: Try the prototypes, experiment with them, and seek feedback.

Improve: Consider what worked and what did not from the testing prototypes, return to the ideate phase to develop enhanced prototypes, and test again.

This is a non-linear process meaning that we return to steps and restart in certain areas. Design thinking is deliverable focused, making sure what we create best serves and represents the end user's needs.

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With industrial and scientific developments, many new optimization problems are needed to be solved. Several of them are complex, multi-modal, high-dimensional, and nondifferential problems and some new optimization techniques have been designed.

Swarm intelligence (SI) is a recent research topic which mimics animal social behaviours. Up to now, many new swarm intelligence algorithms have been proposed, such as group search optimizer, artificial physics optimization, firefly algorithm and ant colony optimizer (ACO).

All of them are inspired by different animal group systems. Generally, they are decentralized, self-organized systems, and a population of individuals are used to interacting locally. Each individual maintains several simple rules, and the emergence of "intelligent" global behaviour is used to mimic the optimization tasks.

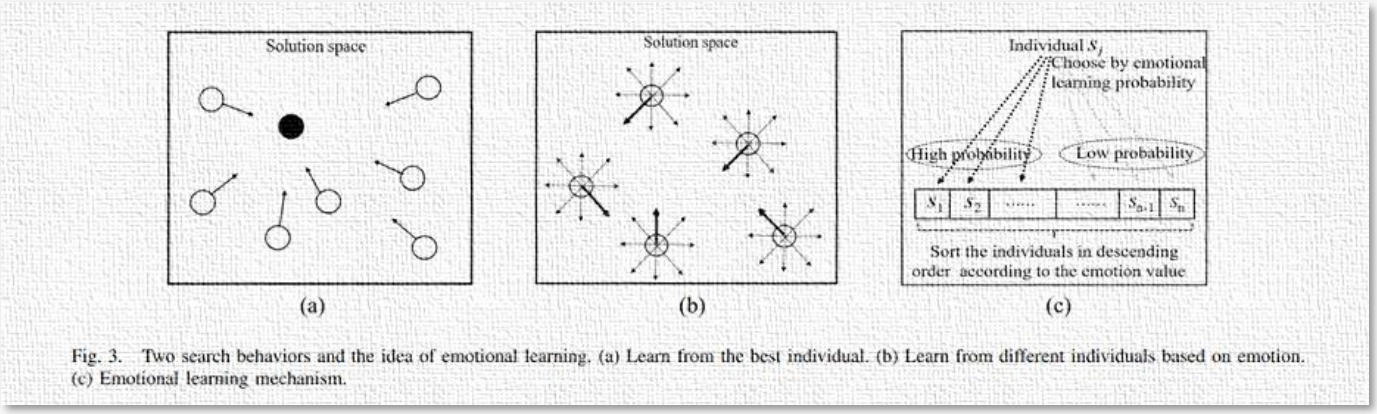

Fig. 3. Two search behaviors and the idea of emotional learning. (a) Learn from the best individual. (b) Learn from different individuals based on emotion. (c) Emotional learning mechanism.

Artificial Neural Networks, are the new systems and computational methods for machine learning, presenting the knowledge, and eventually applying the obtained knowledge in order that the output responses of the complex systems can be forecasted. The original notion of this type of network is inspired by the function of a biological neural network to process information and data to be able to learn and create knowledge. The key element of this notion is making new structures for the information processing system. This system is composed of a host of extremely compact processing elements named neurons which work together to coordinate to solve a problem. Synapses are connections between neurons through which information flows from one neuron to another.

Emotion means movement, incitement, and excitation. Emotion is the brain’s various incitements in relation to provocation, spirit, habitude, personality, temper and so forth. In terms of physiology, excitement is caused by tranquillizing hormones or neural stimuli such as Dopamine, Oxytocin, Noradrenaline, Serotonin, and Cortisol.

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Reptiles react to symbols of chemical, touch, and sight senses and their reactions have already been determined in accordance with their bodies. The sense of smell of the mammals which are active at night becomes a dominant sense and replaces the sight sense; consequently, the lobes of sense of smell in mammalian brains in comparison with their sizes are bigger than the reptiles'. Emotion is an organized psychic state in Limbic system of mammalian brains. Emotions are more complicated than reptiles' reflexive responses. Take the emotion of love as an example among the mammals which is developed in Cingulate Gyrus and facilitates the children's nutrition and caring.

Limbic system can be defined as emotions at specific parts of brain. The most significant parts of this system are Amygdala, Hypothalamic, Cortex Pryfrantal, Gyrus Syngvlat and Hippocampus which are all located in cortex [22]. It should be noted that emotions are not merely related to Limbic system, yet it has been shown that some of these Limbic systems are not directly related to emotions. However, some non-Limbic systems can be found which have more effects on creating emotions.

Emotional computation is considered as an interdisciplinary field including computer science, psychology and cognitive science. However, this field might originally refer to the previous philosophic questions about emotion. Emotional neural network is a field of artificial intelligence which has resulted in designing the systems which can recognize process and even interpret the emotions. Emotion recognition starts with the sensors which receive the raw data about the physical state or user's behavior. The obtained data are compared with the human signs which have already been categorized to understand the emotion. Another improvement in this regard is designing some machines presented to show the innate emotion which are able to simulate the emotions. Analyzing the speech patterns, speech emotional processing recognizes the user's emotional state. Processing is obtained by investigating the facial expressions or the body language through the sensors.

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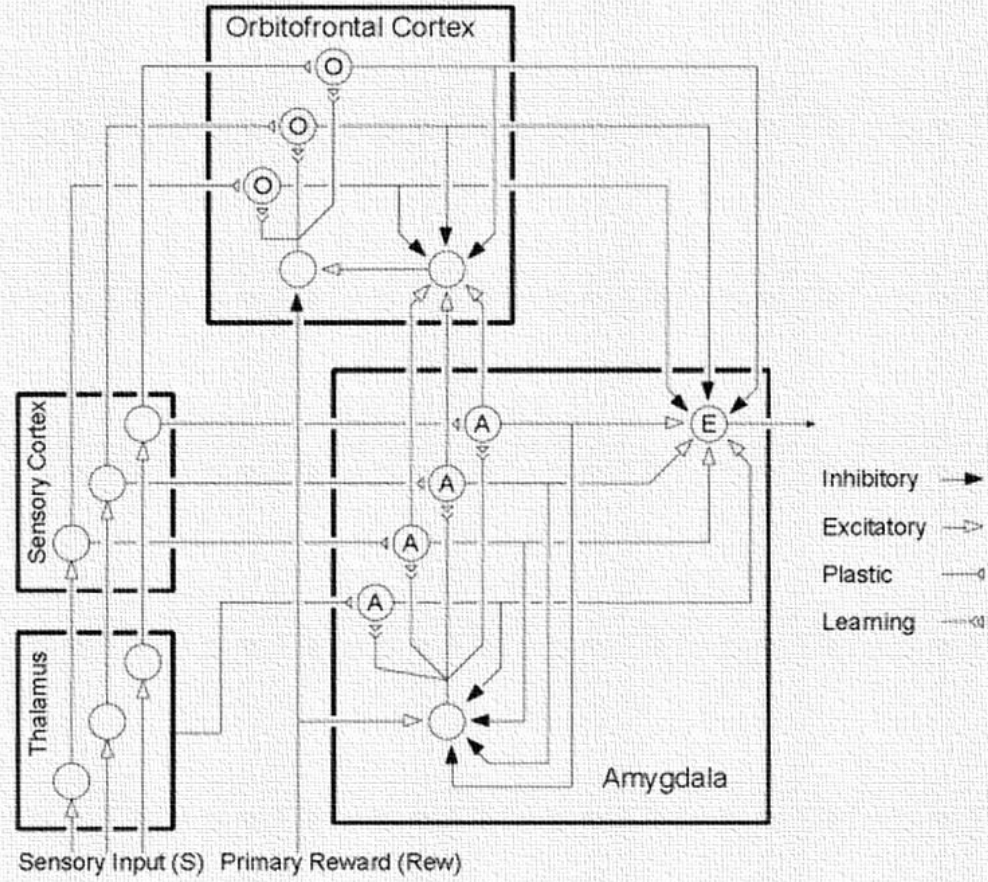

Figure 1. Structure of computational model of Emotional Learning in the Amygdala

3.2.4.2. Examples of How to Implement

Computational thinking is not just a foundation for technology skills like coding, but it is instead a vehicle to generate social and emotional attitudes needed for students to be future ready. Accordingly, computational thinking can be integrated into social-emotional learning as follows:

In decomposition a learning environment need to be created for students in which students can break down problems. For example, students can be lead through questions such as can you break this down? In the abstraction stage, students need to focus on the important parts of the problem and change the way the data is presented. Accordingly, questions enable students to focus on the important information in the problem

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can help to abstract. Data visualization can also be considered for the abstraction stage such as: drawing a diagram, making a graph.

The word algorithm is “a method used to solve a problem consisting of fully defined commands" (Futschek, 2006). In other words, the algorithm expresses the steps and rules that must be followed to achieve the desired result (Lamagna, 2015). In this sense, algorithms represent step-by-step solutions to specific problems. Accordingly, in algorithms, the solution is considered as an integration of small steps. This makes the solution simpler.

Different types of algorithms are required to solve different types of problems in everyday life. There are many types of algorithms. In algorithm teaching, three types of algorithms are discussed. These types are identified as linear (logical), cyclic and branching. A Linear (logical) algorithm refers to a sequence of steps that are progressed one by one sequentially (Cooper et al., 2000). For example, creating daily routines such as waking up, washing hands, brushing teeth, and doing can be structured with linear algorithms. The cyclic algorithm, which is another type of algorithm, is a structure designed by constantly repeating certain operations to reach a solution. For example, hammering nails and using an eraser are activities using a circular algorithm. Finally, the branching algorithm refers to a structure that includes candidate solutions for the solution of the problem. The word branch in this expression represents subsets of different solutions belonging to different paths while reaching the solution. For example, when the classroom lamp is not working: Is it plugged in? If not, plug it in, if yes, check whether the bulb has exploded, if not, check whether the bulb has come loose from its place, fix it if it is, then check the presence of electricity, if it is not, buy a new light bulb.

ENSEL NETWORK

Rotterdam University of Applied Sciences with the cooperation of the Social Cooperative of Cyclades as receiving Organisation have organize a Minor Project for Social Emotional Learning-SEL, in Europe for the 2022-2023

The internship is aimed at investigating and finding ways to improve Social Emotional Learning-SEL, in Europe.

For this internship, four students from the University of Rotterdam with the supervision of Prof. L. F. J. Martijn (Rens), and Prof. Koning, M.A. (Mirjam), coordinators of the minor Beyond Borders (Minor+ Beyond Borders - Hogeschool Rotterdam), collaborating with Miltos Sakellariou, MSc Counseling Psychology, President of

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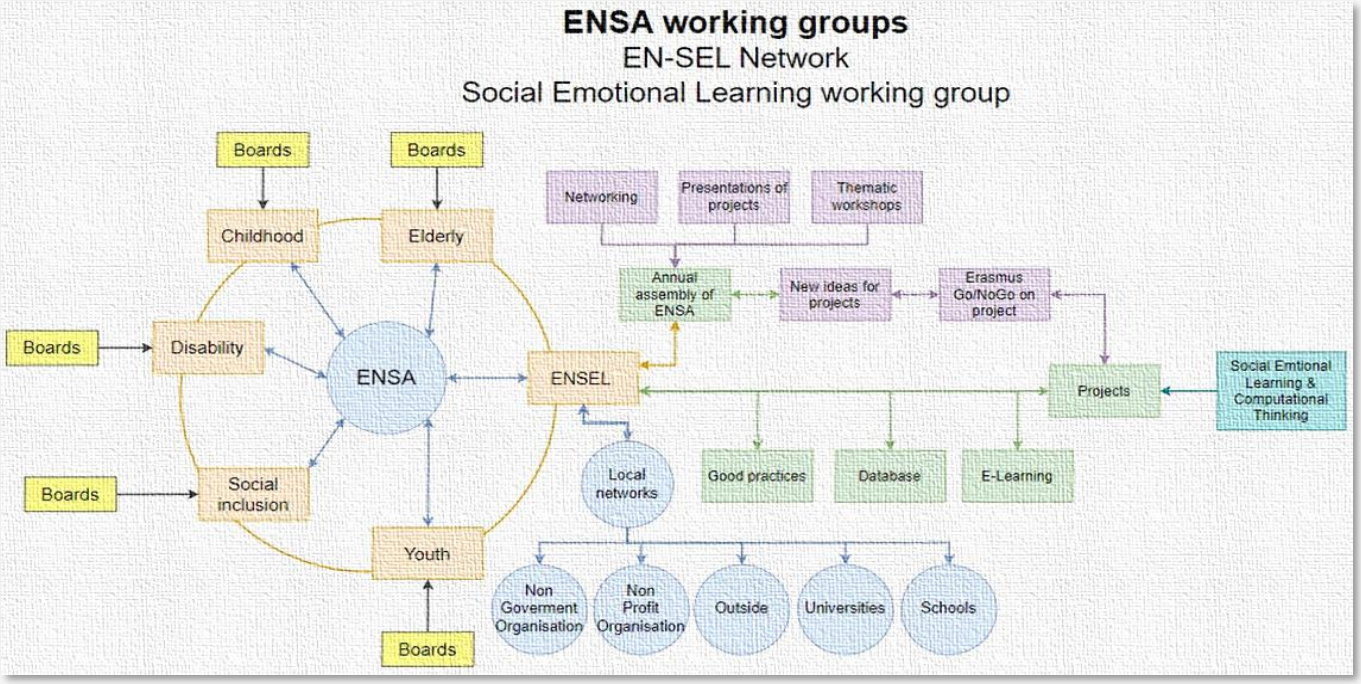
the Social Cooperative of Cyclades-ALTERA VITA, cooperate for the formation of the EN-SEL- European Network for Social Emotional Learning and Well Being.

To do so, we applied the method of **Design thinking.** This method has a lot of tools to find a solution to a complicated problem and to create a **prototype.**

This prototype was presented at the ENSA annual Assembly (EUROPEAN NETWORK OF Social Authorities) on the 15th of November 2022 in Venice at a specific panel



with presentations of projects for SEL from Universities, Schools, Associations of people with Disabilities, with an Holistic Approach and focus for the Well- Being.

At the panel for SEL presented insights and outputs from the REFLECT https://reflectproject.wixsite.com/site and COMPUSEL projects https://www.compuseleu.com/. from Prof. Dr. Cigdem SAHIN TASKIN Çanakkale Onsekiz Mart University-Turkey, and Associate Professor Adelinda Araújo Candeias, Universidade de Évora, Escola de Saúde e Desenvolvimento Humano – Departamento de Ciências Médicas e da Saúde, Portugal.

At the end of the Annual Assembly of ENSA on 15th November 2022 in Venice, after a proposal of Annalisa Bisson, Legal Representative of ENSA network - Director of International Relations, Veneto Region, and the acceptance of the Members, was created a new working group for promoting well-being and implementing Social Emotional Learning in Europe.

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OBJECTIVES AND ACTIVITIES

The main objectives of the new thematic group for Wellbeing and Ensel-Network:

1. To coordinate actions and initiatives at the European level and develop partnerships across Europe

2. To campaign and advocate for a common European strategy for life skills, especially for Social and emotional competencies in Europe and to monitor and influence policies at the national and European levels for schools, Universities, Communities, and Organisations.

3. To produce and promote the exchange of good practices, enforce capacity building and provide tools and training to professionals working in the field.

4. To raise awareness among the public and empower children and young people as well as parents, teachers, and stakeholders professionals, on how to achieve implement Life Skills in a Holistic approach in their communities for the wellbeing.

For more information about different ongoing projects in Europe for SEL and Well-being, please visit the links below:

EU-projects:

- COMPUSEL https://www.compuseleu.com/
- REFLECT https://reflectproject.wixsite.com/site
- The living Art-Art of Living https://livingarterasmus.wixsite.com/livingart
- RED https://erasmusredproject.wixsite.com/red-project
- DANCEFULNESS https://dancefulness.eu/

Here is the link of the ENSELPLATFORM: https://en-sel.eu/

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4- CONCLUSION

4.1. Suggestions for the Curriculum Design

School is the most favourable learning environment in which the individual socializes After the family. The individual reconstructs himself socially and emotionally in school. For this reason, the school plays a crucial role in shaping the social-emotional development of the individual, and school programs should support individuals' social-emotional learning as well as their academic success. An individual who is socially and emotionally well-educated will easily adapt to his environment and the difficulties s/he meets (Cherniss, 2000).

Developing social-emotional skills provides inclusiveness and diversity in all areas of education by its very nature. Therefore, should be considered a priority in the curriculum. With the COVID-19 pandemic, students had to communicate in a much more distant world. This has led us to update existing approaches to social-emotional learning, as well as develop a curriculum for students.

Teacher training is a very important step in the development of social-emotional skills. Pre-service teachers will be able to develop these skills early and form an important basis for the students they will train and the learning environments they will structure. In addition, pre-service teachers will learn how to be careful and purposeful through computational thinking in the problems they encounter, and they will be able to find solutions to complex problems. On the other hand, it is necessary to increase digital competencies to prepare prospective teachers for the future. For this reason, technologies and applications suitable for the digital age are required in an innovative curriculum that aims at social-emotional development. Digital technologies should also be considered as a tool in developin social-emotional skills.

So as guidelines for future actions in school context and curriculum development development we suggest:

This report recommends the “urgent definition of an integrated strategy to promote socio-emotional skills and psychological health from schools” including:

1. The explicit learning of socio-emotional skills, along with their curricular infusion, in a transversal and longitudinal model;
2. Learning socio-emotional skills in informal learning contexts;

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3. The implementation of interventions that promote well-being and psychological health, starting from pre-school education;
4. Valuing student participation;
5. Promotion of healthy school climates;
6. Commitment to the development of socio-emotional skills of teachers and principals, as well as other stakeholders in the school ecosystem;
7. Positive disciplinary management;
8. Strengthening support for learning and inclusion;
9. The establishment of a monitoring/evaluation system for these indicators;
10. The creation of authentic partnerships with families and communities, based on the good experiences recorded on the ground;
11. The introduction of the promotion of socio-emotional skills and self-care in the initial training of future educators and teachers

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

5- REFERENCES

Aggeliki Thanou, Miltos Sakellariou, M. Paramythiotou, D. Messaris, and others (2018), The secrets of the rainbow, guide to various educational activities at the school, an intervention program for school violence in elementary schools 1st edition Athens PATAKIS (Eds).

Almășan B., Dumitrache A., Pertea A., Norel M., Horumbă M. , Practical Guide for the Online Teacher , University Publishing House, Bucharest ISBN 978-606-28-1436-6, DOI 10.5682 / 9786062814366

Almășan B, Tomșa, Gh., (2021), Academic Counseling and Information and Communication Technology, Benefits and Risks in the SARS-CoV-2 Pandemic Context , (pp . 32-44) in

Anagnostopoulou, M., S. (2005). The interpersonal relationships of teachers and students in the classroom - Theoretical analysis and empirical approach. Thessaloniki: Kyriakidis Brothers.

Andrian, R., & Hikmawan, R. (2021). The importance of computational thinking to train structured thinking in problem-solving. Jurnal Online Informatika, 6(1), 113-117.

Anna McVeigh-Murphy (2019). Computational Thinking, Algorithmic Thinking, & Design Thinking Defined

Argetoia, O. P. (2022). Consiliere și dezvoltare personală. Clasa a V-a. București: Booklet.

Argyle, M. (1988). Bodily Communication (Τόμ. 2). New York: Methuen.

Barbara L. McCombs, (2004). The learner-centred Psychological Principles: A framework for Balancing Academic Achievement and Social- Emotional Learning Outcomes. In: Joseph E. Zins, Roger P. Weissberg, Margaret C. Wang, Herbert J. Walberg (Eds.), Building Academic Success on Social and Emotional Learning: What does the research say? (pp. 23-37). New York and London: Teacher's College, Columbia University.

Baron, R., Branscombe, N. & Byrne, D. (2013). Κοινωνική Ψυχολογία, μτφρ. Ε. Μπελεζίνη. Εκδόσεις: Ίων.

Bertanlanffy, L. (1968). General Systems Theory. New York: George Braziler.

Bowen, M. (1975). Family therapy after twenty years. In S. Arieti (Eds.), American Handbook of Psychiatry. Vol.4. New York: Αθήνα:Ελληνικά Γράμματα.

Battistich, V., Solomon, D., Watson, M., & Shaps, E. (1997). Caring school communities. Educational Psychologist, 32, (137-51).

Battistich, V. (1997). Character Education, Prevention, and Positive Youth Development, University of Missouri, St. Louis, USA

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Boncea ., A., (2016) - Modern teaching strategies. interactive teaching- learning -assessment methods, Annals of the “Constantin Brâncuşi ” University of Târgu Jiu, Education Sciences Series , Nr. 3/2016

Boni, M. (2009). Polska 2030 Wyzwania Rozwojowe [Poland 2030 Challenges for Development]. Warsaw, Poland: Kancelaria Prezesa Rady Ministrow.

Borowski, T., (2019), CASEL’s Framework for Systemic Social and Emotional Learning, retrieved from: https://measuringsel.casel.org/wp-content/uploads/2019/08/AWG-Framework-Series-B.2.pdf

Botelho, G., (2021), Organizational Awareness: Are You Able to Read the Signs?, retrieved from: https://www.hrexchangenetwork.com/employee-engagement/columns/organizational-awareness-are-you-able-to-read-the-signs

Boyatzis, R.E., Goleman D., & Rhee, K.S. (2000), Clustering competences in emotional intelligence: Insights from the Emotional Competence Inventory. In: R. Bar - On & J. Parker (Eds.), The handbook of emotional intelligence (pp. 343-362). San Francisco: Jossey - Bass.

Brackett, M. & Katulak, N., (2007). Emotional Intelligence in the Classroom: SkillBased Training for teachers and students In: Joseph Chiarrochi & Marziyah Panju (2008). 7 Successful Strategies to Promote Emotional Intelligence in the Classroom, Great Britain: MPG Books Ltd

Bronfenbrenner, U. (1979). The ecology of human development experiments. Cambridge, MA: Harvard University Press.

Calderon, A.C., Crick, T. and Tryfona, C. (2015) 'Developing computational thinking through pattern recognition in early years education'", Proceedings of the 2015 British HCI conference, 13 - 17 July, ACM, Lincoln. DOI: 10.1145/2783446.2783600.

Carver, C. S. (2003). Self-awareness, In M. R. Leary & J. P. Tangney (Eds.), Handbook of self and identity. New York: Guilford

Cefai, C.; Bartolo P. A.; Cavioni. V. & Downes, P. (2018). *Strengthening Social and Emotional Education as a core curricular area across the EU. A review of the international evidence*, *NESET II report*, Publications Office of the European Union, doi: 10.2766/456730

Cerghit , I. (2009). Alternative and complementary training systems. Iasi : Polirom Publishing House.

Chowdhury (2003). Natural language processing., Ann. Rev. Info. Sci. Tech., 37: 51-89

Compton, R. (χ.χ.) Conflict Resolution Education and Social Emotional Learning Programs: A critical comparison of school-based efforts. 1st edition: Cohen, J. Compton, R., & Diekman, C. (2000).

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Consult Plus & Asociatia de Stiinte Cognitie din Romania, Program de formare Dezvoltarea socio-emoţională a copiilor şi adolescenţilor prin programe EREC, retrieved from: https://xdocs.ro/doc/suport-de-curs-self-kit-loywzy7r6m83

Cook, S. H. (1999). The self in self-awareness. Journal of Advanced Nursing, 29(6), 1292–1299. DOI: https://doi.org/10.1046/j.1365-2648.1999.01014.x

Costa, A., and Faria, L. (2013). Aprendizagem social e emocional: reflexões sobre a teoria e a prática na escola portuguesa. *Anál. Psicol.* 31, 407–424. doi: 10.14417/ap.701

Cristóvão, A. M., Candeias, A. A., & Verdasca, J. (2017). Social and emotional learning and academic achievement in Portuguese schools: A bibliometric study. *Frontiers in psychology*, *8*, 1913. https://doi.org/10.3389/fpsyg.2017.01913

Cristea, S. (2018). „Taxonomy of non- cognitive objectives, from the «affective domain»" in the Education Tribune accessed at https://tribunainvatamantului.ro/2018/02/01/ taxonomy-of- non- cognitive -objectives -in-the-affective-domain /LEN 1/2011, National Education Law

Cui, Z., Xu, Y., & Zeng, J. (2012). Social emotional optimization algorithm with random emotional selection strategy. Theory and New Applications of Swarm Intelligence, 33-50.

Dell, P.F. (1982). Beyond Homeostasis: toward a concept of coherence. Family Process, 21, 21 & 2.

Donges (2019). A GUIDE TO RNN: UNDERSTANDING RECURRENT NEURAL NETWORKS AND LSTM

Dracinschi, M. C. (2012). European experience of social and emotional learning programs. *Journal of Educational Science*, *1*, 36-44.

Durkheim, E., (1980), Educaţie şi sociologie, Editura Didactică şi Pedagogică, 1980.

Educational counseling, counseling and guidance for career and school consulting, Ed. Universitară, Bucharest, ISBN 978-606-28-1267-6, DOI 10.5682 / 9786062812676

Ekman P. (1999). "Basic emotions." Handbook of cognition and emotion

Elias, M. J., Tobias, S. E. & Friedlander, B. S. (2019). Inteligența emoțională în educația copiilor. Editura Curtea Veche.

Elkaim, M. (1991). Αν μ'αγαπάς μη μ'αγαπάς. μτφρ. Ν. Χρηστάκης. Αθήνα: Κέδρος.

Encyclopædia Britannica, Inc.

European Seminar « Echanges Culturels de Jeunes par le Théâtre, Quels enjeux et quel avenir dans un monde en crise ? **»** May 2016 CREARC-Grenoble.

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Falahiazar, A., Setayeshi, S., & Sharafi, Y. (2015). Computational model of social intelligence based on emotional learning in the Amygdala. Journal of mathematics and computer Science, 14, 77-86.

Federação Nacional de Educação (FNE). (2012). *Parecer sobre a proposta-base de revisão da estrutura curricular*. Retirado em dezembro 15, 2012 de http://www.fne.pt/upload/parecerFNE_RC.pdf *420*

Federação Nacional dos Professores (FENPROF). (2011). *Desvalorização de algumas disciplinas e concretização do que prevê o OE/2012.* Retirado em dezembro 15, 2012 de http://www.fenprof.pt/?aba=27&mid=115&cat=226&doc=6012

Flavian, H. (2016). Towards teaching and beyond: strengthening education by understanding students' self-awareness development. Power and Education, 8(1), 88–100. DOI: https://doi.org/10.1177/1757743815624118

Gaś Z.B. (2006), Profilaktyka w szkole, Warszawa, WSiP

Gigantesco, A., Palumbo, G., Zadworna-Cieślak, M., Cascavilla, I., Del Re, D., & Kossakowska, K. (2019). An international study of middle school students' preferences about digital interactive education activities for promoting psychological well-being and mental health. Annali dell'Istituto Superiore di Sanità, 55(2), 108-117.

Goldenberg, I. & Goldenberg, H. (2000). Οικογενειακή θεραπεία. Μια επισκόπηση. Αθήνα: Εκδόσεις Έλλην.

Goleman, D., (1995). Emotional Intelligence. New York: Bantam Books, 1995. Print.

Goleman, D., Boyatzis, R., & McKee, A. (2002). Primal Leadership: Realizing the Power of Emotional Intelligence. Boston, MA: Harvard Business School Press.

Gotovos, A. (2002). Pedagogical Interaction. Communication and social learning. Athens: Gutenberg.

Gurney, K. (2018). An introduction to neural networks. CRC press.

Guttag, J. V. (2013). Introduction to Computation and Programming Using Python (Spring 2013 edition ed.). Cambridge,Massachusetts: The MIT Press. ISBN 9780262519632.

Haley, J. (1963). Strategies of psychotherapy. New York: Grune & Stratton.

Haley, J. (1984). Ordeal therapy: unusual ways to change behavior. San Francisco: Jossey-Bass.

Haley, J. (1996). Learning and teaching therapy. New York: Guilford Press.

Handi (2019). Simplified: Sigmoid Neuron — A building block of Deep Neural Network

Hoffman, L. (1981). Foundations of family therapy. New York: Basic Books.

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Hogg, M.A, & Vaughan G.M. (2010). Κοινωνική ψυχολογία, μτφρ. Ε., Βασιλικός & Α., Αρβανίτης. Αθήνα: Gutenberg.

HUANG, XU & YU (2015). Bidirectional LSTM-CRF models for sequence tagging

Humphrey, N. (2018). School-based social and emotional learning interventions: common principles and european applications. In K. V. Keefer, J. D. A. Parker, & D. H. Saklofske (Eds.), *Emotional Intelligence in Education: Integrating Research with Practice* (pp. 199- 216). Switzerland: Springer.

I. C. Education (2020). Convolutional Neural Networks,» 2020. [56] v. choubey, Text classification using CNN

Jackson, D.D. (1965). The study of the family. Family Process, 4(1), 1-20.

Journal of mathematics and computer science 14 (2015) 77 – 86 Vol14_Iss1_77-86_Computational_Model_of_Social_Intel.pdf

Katz, D. & Kahn, R. L. (1978). The Social Psychology Of Organizations. NewYork: John Wiley & Sons

KETHEA organization against drugs in GREECE: social and emotional skills FOR ELEMENTARY SCHOOLS'STUDENTS: https://drive.google.com/drive/folders/16epvpUTgx6ttfSNIJNZc30gzZACTth9M?usp=sharing

Kleiber, M., Kleer, J., Wierzbicki, A., Galwas, B., Kuznicki, L., ´ Sadowski, Z., & Strzelecki, Z. (2011). Raport Polska 2050 [Poland 2050 Report]. Warsaw, Poland: Polska Akademia Nauk

Kossakowska, K., & Zadworna, M. (2021). Evaluation of a pedagogical e-tool for promoting students' well-being: The perspective of future prevention providers. *Kwartalnik Naukowy Fides et Ratio*, *47*(3), 324-338.

Kušen, E., Cascavilla, G., Figl, K., Conti, M., & Strembeck, M. (2017, August). Identifying emotions in social media: comparison of word-emotion lexicons. In 2017 5th International Conference on Future Internet of Things and Cloud Workshops (FiCloudW) (pp. 132-137). IEEE.

Lai, Z., Feng, X., Yu, H., & Luo, F. (2018). A parallel social spider optimization algorithm based on emotional learning. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 51(2), 797-808.

Lantieri, L. (2017). Dezvoltarea inteligenței emoționale a copiilor. (M.-G. Deniz, Trans.)Curtea Veche Publishing.

Lawson, G.M., McKenzie, M.E., Becker, K.D. *et al.* The Core Components of Evidence-Based Social Emotional Learning Programs. *Prev Sci* **20,** 457–467 (2019). https://doi.org/10.1007/s11121-018-0953-y

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Lee, S. Y. M., Chen, Y., & Huang, C. R. (2010, June). A text-driven rule-based system for emotion cause detection. In Proceedings of the NAACL HLT 2010 workshop on computational approaches to analysis and generation of emotion in text (pp. 45-53).

Lightner, L., (2021), What are Social Awareness Skills? Definition Examples, retrieved from: https://adayinourshoes.com/what-are-social-awareness-skills-definition-examples-eq/

Madanes, C. (1981). Strategic family therapy. Jossey-Bass Publishers.

Madanes, C. (1991). Strategic family therapy. In A.S. Gurman & D.P.Kniskern (Eds), Handbook of Family Therapy (Vol. II). New York: Bruner/Mazel.

Maray Bowen, M. (1996). Τρίγωνα στην οικογένεια, μτφρ. Ε. Γκίκα & Μ. Λεβή. Αθήνα: Ελληνικά Γράμματα.

Matos. M, et al., (2022). Observatório de saúde psicológica e bem-estar: monitorização e ação. *DGEEC*. https://www.dgeec.mec.pt/np4/1357.html

Matsangouras, H. (2006). The school class. Athens: Grigori.

Merrihue, W. V. (1960). Managing By Communication. U.S.A.: BookDepart.

Ministério da Educação: Decreto-Lei nº 6/2001. *Organização e gestão do currículo nacional*. D.R. I Série (15), 18 de janeiro, 2001.

Ministério da Educação: Decreto-Lei nº 74/2004. *Organização e gestão do currículo*. D.R. I Série (73), 26 de março, 2004.

Ministério da Educação: Decreto-Lei nº 50/2011. *Objeto*. D.R. I Série (70), 8 de abril, 2011.

Ministério da Educação: *Lei de Bases do Sistema Educativo Português*: Lei nº 46/86. D.R. I Série (273), 14 de outubro, 1986.

Ministério da Educação: Parecer nº 2/2012. *Parecer sobre Proposta de Revisão da Estrutura Curricular para o Ensino Básico e Secundário.* D.R. II Série (48), 7 de março, 2012. Retirado em dezembro 15, 2012 de http://www.portugal.gov.pt/media/140257/revisao_estrutura_curricular_basico.pdf

Ministério da Educação e Ciência (MEC). (2011). *Revisão da Estrutura Curricular*. Acedido em 15 de dezembro de 2012 em http://www.portugal.gov.pt/media/140257/revisao_estrutura_curricular_basico.pdf

Minuchin, S., & Fishman, H. (1981). Family therapy techniques. Cambridge, MA: Harvard University Press.

Molnar, A., Lindquist, B. (1994). Προβλήματα συμπεριφοράς στο σχολείο. Οικοσυστημική προσέγγιση. Αθήνα: Ελληνικά Γράμματα.

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Moorhead, G. & Griffin, R.W. (1995). Organizational Behavior: Managing People and Organizations (Tóμ. 4). Houghton Mifflin.

Neacșu, I., & Suditu, M. (2020). Educația emoțional-afectivă. Noi explorări, noi strategii. Polirom.

Negreț -Dobridor, I., Pânișoară, I.O.. (2005). The science of learning. From theory to practice. Iasi: Polirom.

Nielsen, M. A. (2015). Neural networks and deep learning (Vol. 25). San Francisco, CA, USA: Determination press.

OECD (2015). *Skills for Social Progress: The Power of Social and Emotional Skills*. OECD.

Oprescu, A., Baban, A., & Benga, O. (2015). Strategii de prevenție a problemelor de comportament. A.S.C.R [Asociaţia de Ştiinţe Cognitive din România].

Paun , E., Vrasmas , E., Almășan, B. (2020), Education through the lens of equity . Competition and cooperation in school, University of Bucharest Publishing House ISBN 978-606016-1214-7

Payton, J. W., Wardlaw, D. M., Graczyk, P. A., Bloodworth, M. R., Tompsett, C. J., Weissberg, R. P. (2000). Social and emotional learning : A framework for promoting mental health and reducing risk behaviors in children and youth. Journal of School Health, 70(5), 1-8.

Pițilă, T., Mihăilescu, C., & Coman, C. (2021). Dezvoltare personală. Clasa a II-a. Editura Didactică și Pedagogică.

Promoting Mental and Emotional Health K.Weare, G.Gray, HEU, University of Southampton and WHO Regional Office for Europe:

https://drive.google.com/open?id=1TznBwaX_RvS38TW1Umktdk9D9JMb9Arp

Richardson, B. G., & Shupe, M. J. (2003). The Importance of Teacher Self-Awareness in Working with Students with Emotional and Behavioral Disorders. Teaching Exceptional Children, 36(2), 8–13. Retrieved: http://www.casenex.com/casenex/cecReadings/theImportanceOfTeacher.pdf

Rodríguez del Rey, Y. A., Cawanga Cambinda, I. N., Deco, C., Bender, C., Avello-Martínez, R., & Villalba-Condori, K. O. (2021). Developing computational thinking with a module of solved problems. Computer Applications in Engineering Education, 29(3), 506-516.

Ross K.M. & Tolan P. (2018). Social and Emotional Learning in Adolescence: Testing the CASEL Model in a Normative Sample. *The Journal of Early Adolescence*, 38(8):1170-1199. doi:10.1177/0272431617725198

Sakellariou, M. (2007). Mixed counselling groups in Prevention and Voluntarism, Athens.

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Sakellariou, M. (2012). School Violence and Bullying. Dealing with it in school and family system. https://drive.google.com/file/d/11h9GlMWanhPVczHIW85HQM_lp6BkgncP/view

Selvini Palazzoli, M., Boscolo, L., Ceccin, G. & Prata, G. (1978). Paradox and Counter Paradox. New York: Iason Aronson. University of Stirling for the SCOTTISH CENTRE FOR INTERGENERATIONAL PRACTICE Intergenerational Place-based Education Where schools, communities, & nature meet

Short, J., Williams, E., & Christie, B. (1976). The social psychology of telecommunications. Toronto; London; New York: Wiley.

Social and emotional education at school. (2011) Authors: Collective work, Golden C. Chatzichristou, Panagiota Dimitropoulou, Catherine Lambropoulou, George Boumpousis, Lymperopoulou Joy, Athanasia Kati, Konstantina Lykitsakou, Alexia Bakopoulou, Vicky Nikolopoulou, Evangelia Benaveli, Panagiotis Lianos, Katerina Georganti, Theodora Woven, George Georgouleas. Publishers: Print, National and Kapodistrian University of Athens. School Psychology Research and Applications Center.

Ștefan, C. A., & Kallay, E. (2010). Dezvoltarea competențelor emoționale și sociale la preșcolari. ghid practic pentru educatori. Cluj Napoca: A.S.C.R [Asociaţia de Ştiinţe Cognitive din România].

Ștefan, C. A., & Kallay, E. (2010). Dezvoltarea competențelor emoționale și sociale la preșcolari. ghid practic pentru părinți. Cluj-Napoca: A.S.C.R [Asociaţia de Ştiinţe Cognitive din România].

Steven, J. S., & Howard E. (2011). The EQ Edge: Emotional Intelligence and Your Success. 3rd Edition. Wiley & Sons, Incorporated.

Sutton, A. (2016). Measuring the effects of self-awareness: Construction of the Self-Awareness Outcomes Questionnaire. Europe's Journal of Psychology, 12(4), 645-658. https://doi.org/10.5964/ejop.v12i4.1178

Tao, J. (2004). Context based emotion detection from text input. In Eighth International Conference on Spoken Language Processing.

Taylor, S. N. (2006). Why the real self is fundamental to intentional change. Journal of Management Development, 25(7), 643-656. https://doi.org/10.1108/ 02621710610678463

Tsiplitaris, A. (2004). Psychosociology of the school classroom. Athens: Atrapos.

Underhill, A. (1991). The role of groups in developing teacher self-awareness. ELT Journal, 46(1), 71–80. DOI: https://doi.org/10.1093/elt/46.1.71

Verderber, R. (1998), The Art of Communication, Athens: Hellenic

Vernon, A. (2004). Dezvoltarea inteligenţei emoţionale prin educaţie raţional-emotivă şi comportamentală: clasele I-IV. A.S.C.R [Asociaţia de Ştiinţe Cognitive din România].

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Watters, A. (2017). Social-Emotional Learning (Algorithms)

Weisberg, R. P. & Cascarino, J. (2013). Academic Learning + Social-Emotional Learning = National Priority, Phi Delta Kappan. *95*(2), 8-13. https://doi.org/10.1177%2F003172171309500203

Williams, E. N. (2008). A psychotherapy researcher's perspective on therapist self-awareness and self-focussed attention after a decade of research. Psychotherapy Research, 18(2), 139-146. https://doi.org/10.1108/02683940710757191

Woynarowska B. (2017), Edukacja zdrowotna. Warszawa: PWN

Zadworna-Cieślak, M., & Kossakowska, K. (2018). The Subjective Mental Well-Being of School-Age Children – Educational and Prophylactic Challenges. Educational Studies Review, nr 27 (2/2018), 129–148. DOI: 10.12775/PBE.2018.021

Zakaria, R., Herawati, Y. W. (2018). Indonesian Teacher's Self-awareness and Self-reflection for Millennial Teacher Professional Development. Proceedings of the 1st International Conference on Recent Innovations (ICRI 2018), 622-628. DOI: 10.5220/0009913406220628

Links

- https://programyrekomendowane.pl/
- https://www.bbc.co.uk/bitesize/guides/zxxbgk7/revision/2
- https://programyrekomendowane.pl/strony/artykuly/spojrz-inaczej,29
- http://cbseacademic.nic.in/web_material/Manuals/Handbook_for_Teachers.pdf
- https://www.issup.net/system/files/curriculum-downloads/Example%20UPC%20Trainer%20Manual.pdf
- https://www.youthworkireland.ie/images/uploads/general/library_database_2012.pdf
- https://dictionary.apa.org/emotion
- https://www.javatpoint.com/machine-learningdecision-tree-classification-algorithm
- https://medium.com/tech-based-teaching/thinking-in-patterns-a-brief-intro-to-pattern-recognition-4c33258acad
- www.edu.ro
- www.romaniaeducata.ro
- https://www.edu.ro/sites/default/files/DPC_31.10.19_consultare.pdf
- https://www.edu.ro/sites/default/files/_fi%C8%99iere/Romania%20Educata/Memorandum%20Romania%20Educata%202021.pdf (accessed in May 2022)
- https://cdn.edupedu.ro/wp-content/uploads/2022/04/Comunicat-Presa_Lansare-O-voce-pentru-educatie_14.04.pdf (accessed in May 2022)

This project has been funded with support from the European Commission. This presentation reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

- https://seeval-project.eu
- Almasan, B., Dumitrache, A., Gheorghe, M., Visan A., *Homework - Teacher 's Guide* https://drive.google.com/file/d/1GxHTlDDNQvJ0V8MMSoTN-NUae6EDNLG4/view
- Almasan, B., Dumitrache, A., Gheorghe, M., Visan A., Home Lesson - Parent Guide https://drive.google.com/file/d/1H8jC6A45uzQ7lK273ejy14t6MaQsoD0d/view

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