



## ***Comparative analysis of US and European preschool social and emotional learning programs***

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Social-emotional skills are crucial for preschool children's mental health and later school success. Most school-based SEL programs originate in the United States, reflecting a robust interest in SEL curricula from preschool through secondary school. While EU Member States are increasingly integrating social and emotional skills programs into school curricula, there is a lack of uniform terminologies, frameworks, and assessment criteria, necessitating the introduction of standardized practices. This study aims to offer an overview of US and European preschool SEL programs, utilizing content analysis to showcase the diversity of these programs. The analysis focuses on programs from the "EU-Self Programs for Social and Emotional Skills Development for Early and Preschool Children Applied in European Countries" by Koltcheva et al. (2022), including impact evaluations of nine programs in total. The study analysed the programs in relation to goals and outcomes, and findings reveal that there are no remarkable differences between US and European preschool SEL programs, although certain trends highlight distinctions among programs of different origins. The study will be useful for practitioners who are interested in introducing a preschool SEL program in their institution,

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## **Introduction**

Today's children face various challenges that pose risks to their well-being, including the impact of displacement resulting from factors such as war, pandemics, climate change, and natural disasters (Masten & Barnes, 2018). Therefore, promoting mental health during these early life stages is essential to enhance the well-being and quality of life for individuals, groups, and communities. Preschools are the one of the primary environments for children aged 3-6 years, making them ideal settings for implementing early prevention and intervention strategies. Social and emotional learning (SEL) is especially potent during preschool age because it aligns with the period when children's personalities and brains are still in the formative stages, a period when children undergo several significant transformations in their social and emotional skills, behavior regulation, and learning abilities (Bierman & Motamedi, 2015). As the human brain develops, neural connections are reorganized to form networks that mirror an individual's experiences, enabling them to adapt to their surroundings (Dennis et al., 2013). These experiences, encompassing situations, challenges, ideas, and social interactions, shape the brain's structural and functional patterns, ultimately influencing a person's evolving abilities and traits over time (Immordino-Yang et al., 2019). Consequently, interventions that promote an environment that contributes to healthy development (Butler et al., 2018; Farah, 2017) in these early years may have greater benefits than interventions later in schooling. (Cefai et al., 2018a).

Crucial for fostering a healthy social environment are social-emotional skills related to forming friendships and collaborating effectively with others. These skills encompass empathy, sharing behavior, cooperative play, patience, acceptance, conflict resolution, problem-solving, and managing relationships among children, as well as handling anger and frustration (Immordino-Yang et al., 2019). Each of these skills contributes developmentally to the essential aspects of SEL that are important for schooling. These skills form part of five interrelated areas illustrated in the wheel model developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2023) in the US:

1. Self-awareness (the ability to comprehend one's own emotions, personal goals, and values).
2. Self-management (regulating emotions and exercising self-control).
3. Social awareness (the capacity to understand and embrace others, empathize, and adopt different perspectives from individuals of various backgrounds and cultures).
4. Relationship skills (clear communication, negotiation, seeking and providing assistance).
5. Responsible decision-making skills.

### *Preschool SEL programs*

Preventive school-based SEL programs integrated into the curriculum nurture children's relationship skills, social problem-solving abilities, and ability to identify, comprehend, and regulate emotions (Domitrovich et al., 2017). These programs can also mitigate the risk of academic underachievement and other adverse outcomes, such as antisocial behavior and mental health problems (Bywater & Sharples, 2012). Research conducted among preschool children demonstrates that SEL programs can effectively promote and nurture

these essential skills and abilities (e.g., Cefai et al., 2018a; White et al., 2017). Due to these positive outcomes, more SEL interventions are being introduced in preschools to enhance children's social and emotional skills, prevent behavioural issues, inspire learning, and facilitate a seamless transition to primary school (Cefai et al., 2018b).

In a previous study of eight preschool SEL programs, White and colleagues (2017) found that some teaching practices were related to teaching specific competencies, while others were related to general social-emotional education. Their findings indicated that the skills most frequently addressed in evidence-based preschool SEL programs include emotional awareness, cooperative play, and problem-solving. The programs they investigated also highlighted teacher training, instructional and rehearsal procedures, and family involvement.

The majority of the effective interventions follow a step-by-step approach that tailors development to children's level of progress, following a sequential approach represented by the acronym "SAFE" (Durlak et al., 2011), integrated into the standard curriculum and led by teachers (Greenberg et al., 2003; Hoagwood et al., 2007). Delivering SEL curricula as a universal approach involving all children in the classroom can mitigate the risk of labeling and stigmatization. It allows children to partake in activities that reflect the group's diversity, promoting acceptance a sense of belonging, and enhancing the classroom environment (Cefai et al., 2015).

### *SEL programs in the USA and Europe*

In the United States, many policymakers and educators agree that social and emotional development is crucial for students' success in school (Denham & Weissberg, 2004; Camilli et al., 2010). This consensus has led to a strong interest in implementing SEL curricula from preschool through high school in various states (Committee for Children, 2019). Pioneering efforts in the United States have established the groundwork for the global development of SEL, marked by significant scientific contributions. Notably, a frequently referenced meta-analysis of SEL programs (Durlak et al., 2011) revealed that 87% of the studies were conducted within the United States (Humphrey, 2018).

Numerous commendable practices and programs are being implemented in various European countries (Cavioni et al., 2020; Cefai et al., 2021a; Fenwick-Smith et al., 2018; Simões et al., 2021) however, it's worth noting that the emphasis on social and emotional education in institutional settings is not uniformly prioritised across all countries (Cefai et al., 2018b). The growing interest in SEL in Europe has given rise to two distinct approaches to its implementation:

1. Adapting established SEL programs: In this approach, SEL programs that have been tried and tested in various countries, often from the US, are taken and modified to suit the specific cultural context and needs of European nations.
2. Developing home-grown SEL programs: Several European member states have opted to create and implement their own SEL programs designed to be more attuned to local contexts. This

approach aligns with the argument made by Weare and Nind (2011) that autonomy, local adaptability, and consideration of cultural context make SEL programs more flexible, holistic, and less prescriptive. Such programs are not only geared toward behavior change and knowledge acquisition but also aim to influence attitudes, beliefs, and values.

Weare and Nind's research (2011) indicates that universal, school-wide interventions assessed in the United States tend to be notably more effective compared to SEL programs evaluated outside the US, such as in Europe. The authors propose that this discrepancy is rooted in the operational approaches of schools. In the US, interventions are known for their rigorous program implementation, whereas European interventions tend to be more flexible, bottom-up, and adapted to the local context, which can be more challenging to control and effectively implement. This distinction is also evident in the evaluation of these programs: US schools often adhere to predefined programs that provide clear evaluation criteria, while European schools favour more open frameworks that are tailored to the specific context. This flexibility, however, makes it difficult to compare interventions across different regions (Cefai et al., 2021b).

### *The present study*

In the existing literature, most research is focused on schools, with limited data from preschool settings. However, it is logical to enhance the knowledge base at the preschool level, particularly in light of the literature on early intervention (e.g. Nores & Barnett, 2010) and CASEL's viewpoint that "effective SEL programming begins in preschool" (CASEL, 2012, p. 4). In this study, we used content analysis to investigate the commonalities and distinctions in the objectives and results of SEL programs developed in the United States and Europe, which have been implemented in preschools in European Union (EU) states. Our objective was to investigate the success of preschool programs implemented in the EU, both from the US and Europe, in equipping preschoolers with the competencies of SEL as defined by CASEL (2023). Additionally, we examined strategies, techniques, and demonstration tools employed by teachers in implementing these programs. The following research questions guide the analysis:

1. Which CASEL's areas of competence do preschool program interventions aim to address, and in which ones do the evaluation studies demonstrate success in developing?
2. According to the evaluation studies, which additional areas do the programs target and develop?
3. What teaching methods, techniques and demonstration tools are used for SEL programs in preschool setting?

### **Methodology**

The preschool SEL programs included in the content analysis were chosen from the Erasmus+ EUSELF project's compendium, titled "*Programs for Social and Emotional Skills Development for Early and Preschool Children Applied in European Countries*" (Koltcheva et al., 2022). This compendium was created by conducting a systematic review of existing SEL programs and encompassing descriptions of 59 programs,

many of which were either developed or utilised in various European contexts. The selection of programs was carried out by the first author based on predefined inclusion criteria.

*Inclusion criteria*

1. The SEL program is listed in the "*EU-Self Programs for Social and Emotional Skills Development for Early and Preschool Children Applied in European Countries*" by Koltcheva et al., 2022.
2. The intervention was implemented and evaluated among preschool children within the European Union (EU).
3. The intervention was originally developed in either the EU or the USA.
4. The main focus of the intervention was the preschool age group (3-6 years).
5. The intervention was a universal approach, targeting the entire preschool group.
6. At least one European impact assessment of the intervention was available in English and accessible through the EBSCO database or the Internet.
7. The evaluation of the intervention was primarily focused on measuring SEL skills of preschool children.
8. The evaluation study was published between 2010 and 2023.

*Exclusion criteria:*

1. Interventions with impact assessments primarily aimed at measuring the SEL skills of kindergarten teachers or parents were excluded.
2. Studies which combined the preschool and primary school age groups in a way that made it unclear which results specifically pertained to the preschool age group.
3. Programs developed by international research teams, making it unclear whether the program was of European or American origin.

The studies were assessed using the Mixed Methods Appraisal Tool (MMAT) developed by Hong et al. (2018). The MMAT allows for the assessment of the methodological quality across five categories of studies, which include qualitative research, randomized controlled trials, non-randomized studies, quantitative descriptive studies, and mixed methods studies. A study was classified as high quality if it met four or five criteria, moderate quality if meeting 3 criteria, and low quality if it met 2 or fewer criteria. Based on this evaluation, all studies were classified as medium or high quality; therefore, each was integrated into the final sample of this content analysis (cf. Mohamed Shaffril et al., 2020).

Fifty-nine programs were synthesized in the compendium of Koltcheva et al. (2022), and fifty-eight programs were examined. One program was included with the US origin, and the European adaptation was treated as a separate program. For each program, we examined the studies referenced in the compendium. For those without a corresponding study, we conducted hand-searching. Studies were excluded based on the

following reasons: no available empirical research in English (N=13); the program was not evaluated in the EU (N=9); not focused on topic (N=18); not on preschool population (N=8); program developed by an international research team, not being clearly European or American (N=1); inadequate quality (N=0). After the screening, 4 studies were left that were extended by manual searches (N=5), resulting in 9 papers in total.

### *Coding*

The data were collected and analyzed using a hybrid form of the grounded theory approach (Corbin & Strauss, 2008), incorporating a dual coding scheme with predefined deductive and inductive elements generated by the coders during text interpretation. In addition to the inductive approach, where codes are extracted from the data rather than using pre-existing categories (Boyatzis, 1998), deductive coding was applied to the analysis of texts. In the deductive approach, theoretical concepts are presented as categories of content analysis in the form of 'prefabricated' codes (Crabtree & Miller, 1999). We used the SEL competencies and skills as defined by CASEL (2023) as pre-existing categories and codes. The five broad areas described by CASEL have been identified as categories (e.g. self-awareness) and their corresponding skills as codes (e.g. identifying one's emotions). However, besides the CASEL competencies, we did not have a predefined code book, so the inductive method dominated the exploration of the texts, and the analysis was guided by the research questions. According to the research questions, we identified other skills that the programs aimed to develop. We examined the teaching methods and techniques employed and the demonstration tools utilized in each program. Additionally, we scrutinized the reported outcomes described in the studies: Codes were classified into categories, which helped to organize the codes and facilitate the analysis. The resulting categories include additional developmental areas (e.g., academic performance), problematic behavior (e.g., externalized behavior) and teaching methods, techniques and demonstration tools (e.g., dialogue and discussion). To make the coding results clear, a code was used a maximum of two times in the texts (once when defining the program's objectives and once when coding the results), even if the word symbolised by the code was used several times in the text.

### *Data analysis*

The analysis was conducted using ATLAS.ti software, involving two independent coders to ensure reliability. Krippendorff's Cu-Alpha was 0.88, indicating good reliability (Friese, 2021). The elevated Krippendorff's Cu-Alpha value indicates a high degree of similarity in how the two independent coders encoded the texts. Consequently, for simplicity, we decided to present the results based on the work of one of the coders (coder A). After applying the inclusion and exclusion criteria, 9 studies met the screening criteria, of which 6 were conducted in a European setting and 3 in the US setting, therefore the number of programs and the length of studies were not equal in the two groups. To facilitate a comparative analysis of European and US programs, we standardized the number of codes obtained. Standardized values indicate the occurrence of a given code per program. The number of occurrences of a given code was divided by the total number of programs in Europe or the US, e.g. the code Dialogue and discussion occurred twice in the texts of European programs and

there were 6 European programs in total, giving a standardized value of 0.333. This code also occurred twice in the texts of US programs and there were 3 US programs in total, giving a standardized value of 0.667.

## Results

Following the screening process, six studies of European- and three studies of US-developed SEL programs were included in the analysis (see Table I). Identified codes and categories, as well as the standardized values for the frequency of occurrence of the codes in the texts, are illustrated in Table II. Table II. also shows which areas the program aims to develop and which areas have been effectively developed according to the evaluation studies analyzed. None of the studies reported negative effects on children's development, and all of the programs have positive effects. All the studied programs proved effective in cultivating social and emotional skills. Moreover, the implementation of these programs resulted in the development of additional competences that contribute to children's mental health and overall performance. As Table III shows, among the CASEL's areas of competence, programs originating from the US primarily emphasize self-management and relationship skills, whereas those from Europe target self-awareness and responsible decision-making. Regarding social awareness, both sets of programs share equal objectives and outcomes.

**Table I.**

*Studies included in the review analysis.*

| Origin | Program                                | Country of origin | Study                          |
|--------|--|-------------------|--------------------------------|
| EU     | 1. Aprender a Convir                   | Spain             | Justicia- Arráez et al., 2015. |
|        | 2. Behaviour training in Kindergarten  | Germany           | Koglin & Petermann, 2011.      |
|        | 3. Papilio-3 to 6 Program              | Germany           | Scheithauer et al., 2022.      |
|        | 4. RESCUR Surfing the Waves            | Malta             | Cefai et al., 2018a.           |
|        | 5. Self KIT Program                    | Romania           | Opre et al., 2011.             |
|        | 6. Social-Emotional Prevention Program | Romania           | Ștefan & Miclea, 2014.         |
| USA    | 7. Emotions Course                     | USA               | Di Maggio et al., 2017.        |
|        | 8. High Scope Approach                 | USA               | Kelemen, 2016.                 |
|        | 9. Second Step (Faustlos)              | USA               | Fischmann et al., 2020.        |

US-origin programs were more successful in developing self-awareness and self-management, while European programs demonstrated greater effectiveness in cultivating relationship skills, and the results were the same between the two groups in developing responsible decision-making. Despite these small differences, the preschool SEL programs examined in the study strongly emphasize teaching children age-specific skills such as recognizing their own and others' emotions, self-regulation, effective communication, cooperation, and problem-solving. This aligns with the findings of White et al. (2017), who observed that preschool SEL programs typically focus on developing areas such as emotional awareness, cooperative play, and problem-solving.

**Table II.**

*The standardized values of the occurrence of a given code per program (aims and results)*

| Categories                        | Codes   | Program origin: EU (N=6) |    |   |    |   |    |   |    |   |    |   |    | Program origin: US (N=3) |              |    |   |    |   |    |   |
|-----------------------------------|---|--------------------------|----|---|----|---|----|---|----|---|----|---|----|--------------------------|--------------|----|---|----|---|----|---|
|                                   |   | EU                       | 1. |   | 2. |   | 3. |   | 4. |   | 5. |   | 6. |                          | US           | 7. |   | 8. |   | 9. |   |
|                                   |   | O                        | A  | R | A  | R | A  | R | A  | R | A  | R | A  | R                        | O            | A  | R | A  | R | A  | R |
| CASEL Self-awareness              | 9 codes<br>(e.g. Identifying one's emotions)  | 1.667                    | X  |   | X  | X | X  |   | X  |   |    |   | X  | X                        | <b>2.000</b> | X  | X |    | X | X  |   |
| CASEL Self-management             | 7 codes<br>(e.g. Managing one's emotions; identifying and using stress-management strategies) | 1.167                    | X  |   | X  | X | X  |   |    |   |    |   | X  |                          | <b>2.000</b> | X  | X | X  | X | X  | X |
| CASEL Social awareness            | 8 codes<br>(e.g. Demonstrating empathy and compassion)  | 0.333                    | X  |   |    |   | X  |   |    |   |    |   |    |                          | 0.333        |    |   |    |   |    | X |
| CASEL Relationship skills         | 9 codes<br>(e.g. Communicating effectively; resolving conflicts constructively)               | <b>2.833</b>             | X  | X |    | X | X  |   | X  |   |    |   | X  |                          | 2.000        | X  |   | X  |   | X  |   |
| CASEL Responsible decision making | 7 codes<br>(e.g. Demonstrating curiosity and open-mindedness)                                 | 0.833                    |    | X | X  |   | X  |   |    |   |    |   | X  | X                        | <b>2.000</b> |    |   | X  | X |    |   |
| Additional developmental areas    | Academic performance  | 0.500                    |    |   |    | X |    |   | X  | X |    |   |    |                          | <b>0.667</b> |    |   | X  | X |    |   |
|                                   | Attachment  | 0.000                    |    |   |    |   |    |   |    |   |    |   |    |                          | <b>0.333</b> |    |   |    |   | X  |   |
|                                   | Anti-bullying   | <b>0.167</b>             |    |   |    | X |    |   |    |   |    |   |    |                          | 0.000        |    |   |    |   |    |   |
|                                   | Creativity  | 0.000                    |    |   |    |   |    |   |    |   |    |   |    |                          | <b>0.667</b> |    |   | X  | X |    |   |
|                                   | Independence  | 0.333                    | X  | X |    |   |    |   |    |   |    |   |    |                          | 0.333        |    |   |    | X |    |   |
|                                   | Prosocial behavior  | <b>1.000</b>             | X  | X |    |   | X  | X | X  | X |    |   |    |                          | 0.000        |    |   |    |   |    |   |
|                                   | Resilience  | <b>0.333</b>             |    |   |    |   |    |   | X  | X |    |   |    |                          | 0.000        |    |   |    |   |    |   |
|                                   | Rules for living together   | <b>0.333</b>             | X  |   |    |   |    |   |    |   |    |   |    | X                        | 0.000        |    |   |    |   |    |   |
|                                   | Sence of observation  | 0.000                    |    |   |    |   |    |   |    |   |    |   |    |                          | <b>0.333</b> |    |   |    |   | X  |   |
| Problem behavior                  | SEL   | 1.667                    | X  | X | X  | X | X  | X | X  |   |    | X | X  | X                        | <b>2.000</b> | X  | X | X  | X | X  | X |
|                                   | Externalized behavior (aim: reduce)   | 1.000                    |    |   | X  | X | X  | X | X  |   |    | X | X  |                          | <b>1.333</b> | X  | X |    |   | X  | X |
|                                   | Internalized behavior (aim: reduce)   | <b>0.500</b>             |    |   |    | X |    | X |    |   | X  |   |    |                          | 0.333        | X  |   |    |   |    |   |
|                                   | Hyperactivity (aim: reduce)   | <b>0.333</b>             |    |   |    | X |    | X |    |   |    |   |    |                          | 0.000        |    |   |    |   |    |   |
|                                   | Irrational beliefs (aim: reduce)  | <b>0.167</b>             |    |   |    |   |    |   |    |   | X  |   |    |                          | 0.000        |    |   |    |   |    |   |
| Withdrawn behavior (aim: reduce)  | <b>0.333</b>  |                          |    | X |    |   |    |   |    |   |    |   |    | 0.000                    |              |    |   |    |   |    |   |

Notes: O: Occurrence of codes per program (standardized value).  
A: Aim. According to the study, this program aims to improve this area.  
R: Result. According to the study, the program was effective in improving this area.  
Numbers 1 – 9.: The serial numbers of the studies as shown in Table I.  
The larger values are in bold.



**Table III**

*A summary of the aims and results of the US and European programs within CASEL’s five areas of competence*

| CASEL’s areas of competence | Program origin: EU (N=6) |                             | Program origin: US (N=3) |                             |
|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|
|                             | AIM (standardised value) | RESULT (standardised value) | AIM (standardised value) | RESULT (standardised value) |
| Self-awareness              | <b>0.833</b>             | 0.333                       | 0.667                    | <b>0.667</b>                |
| Self-management             | 0.667                    | 0.167                       | <b>1.000</b>             | <b>1.000</b>                |
| Social awareness            | 0.333                    | 0.000                       | 0.333                    | 0.000                       |
| Relationship skills         | 0.667                    | <b>0.333</b>                | <b>1.000</b>             | 0.000                       |
| Responsible decision making | <b>0.500</b>             | 0.333                       | 0.333                    | 0.333                       |

Note: The larger values are in bold.

**Table IV**

*A summary of the aims and results of the US and European programs within CASEL’s five areas of competence*

| Categories   | Codes                                 | Program origin: EU (N=6) |    |    |    |    |    | Program origin: US (N=3) |              |    |    |    |
|--|---------------------------------------|--------------------------|----|----|----|----|----|--------------------------|--------------|----|----|----|
|  |                                       | O                        | 1. | 2. | 3. | 4. | 5. | 6.                       | O            | 7. | 8. | 9. |
| Teaching methods, techniques and demonstration tools | Active learning                       | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Arranging the educational environment | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Arts                                  | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Assessment                            | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Daily schedule                        | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Dialogue and discussion               | 0.333                    |    | X  |    |    | X  |                          | <b>0.667</b> | X  | X  |    |
|  | DVD                                   | <b>0.167</b>             |    |    | X  |    |    |                          | 0.000        |    |    |    |
|  | Expressions                           | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Feedback                              | <b>0.333</b>             |    | X  | X  |    |    |                          | 0.000        |    |    |    |
|  | Games                                 | <b>0.833</b>             | X  | X  | X  |    | X  | X                        | 0.667        | X  | X  |    |
|  | Games without toys                    | <b>0.167</b>             |    |    | X  |    |    |                          | 0.000        |    |    |    |
|  | Hold Tight technique                  | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> | X  |    |    |
|  | Language                              | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | Literacy                              | 0.167                    |    |    |    |    | X  |                          | <b>0.333</b> |    |    | X  |
|  | Mindfulness                           | <b>0.167</b>             |    |    |    | X  |    |                          | 0.000        |    |    |    |
|  | Modeling                              | <b>0.333</b>             |    |    | X  |    |    | X                        | 0.000        |    |    |    |
|  | Parent training                       | <b>0.167</b>             |    |    |    |    |    | X                        | 0.000        |    |    |    |
|  | Parent’s guide                        | <b>0.333</b>             |    |    | X  | X  |    |                          | 0.000        |    |    |    |
|  | Picture/story books                   | 0.333                    |    |    | X  |    | X  |                          | 0.333        | X  |    |    |
|  | Posters and pictures                  | <b>0.333</b>             |    |    | X  | X  |    |                          | 0.000        |    |    |    |
|  | Practice                              | 0.500                    |    |    |    | X  | X  | X                        | <b>0.667</b> | X  | X  |    |
|  | Puppets                               | <b>1.000</b>             | X  | X  | X  | X  | X  | X                        | 0.333        | X  |    |    |
|  | Reinforcement and tasks               | <b>0.167</b>             |    |    | X  |    |    |                          | 0.000        |    |    |    |
|  | Role-playing                          | <b>0.500</b>             |    | X  | X  |    |    | X                        | 0.000        |    |    |    |
|  | Sciences                              | 0.000                    |    |    |    |    |    |                          | <b>0.333</b> |    |    | X  |
|  | SAFE approach                         | <b>0.167</b>             |    |    |    | X  |    |                          | 0.000        |    |    |    |
|  | Songs                                 | <b>0.333</b>             | X  |    | X  |    |    |                          | 0.000        |    |    |    |
| Stories  | <b>1.000</b>                          | X                        | X  | X  | X  | X  | X  | 0.000                    |              |    |    |    |
| Take home activity                                   | 0.167                                 |                          |    |    | X  |    |    | <b>0.333</b>             | X            |    |    |    |
| Turtle technique                                     | <b>0.167</b>                          |                          |    |    |    |    | X  | 0.000                    |              |    |    |    |

Notes: O: Occurrence of codes per program (standardized value).  
 Numbers 1 – 9.: The serial numbers of the studies as shown in Table I.  
 The larger values are in bold.

Our findings also indicate that programs of US origin tend to target and develop such additional skills as academic performance, creativity, attachment, and sense of observation and reduced externalized behavior slightly more than European programs. On the other hand, programs of European origin are marginally more inclined to target and develop prosocial behavior, resilience, anti-bullying techniques, and rules for living together and reduced internalized behavior, hyperactivity, irrational beliefs, and withdrawn behavior.

Table IV illustrates that the nature of the evaluation study played a significant role in the analysis. In particular studies, such as Fischmann et al. (2020), there was either a lack of information or insufficient description regarding these program characteristics, rendering their identification impossible. It is worth noting that in preschool SEL programs, there is a preference for utilizing puppets, games, dialogue, and discussion and practicing the learned skills. Additionally, European-developed programs frequently incorporate the use of stories, role-playing, and modeling. Active learning, science, arts, and daily schedules were featured in one of the US-originated programs. Parental involvement in the social-emotional development process is explicitly emphasized (e.g., Akmal et al., 2020; McCormick et al., 2016). Although the studies reviewed underline parental involvement, it is interesting to note, however, that only one US-originated and one European preschool SEL program incorporate take-home activities, and two European programs offer a parent's guide.

## **Discussion**

The objectives of the US-originated programs focused more on self-management, which includes skills such as managing one's emotions and stress management strategies. Weare (2010) found that almost all US programs focus largely on skills, combining elements of cognitive behavioral therapy with social skills development for children. This finding is also supported by our study. US programs also strongly target the development of relationship skills, focusing on effective communication and constructive problem solving, skills which are particularly important for preschool children. Fostering effective communication skills in young children is crucial for them to thrive in their surroundings and lays the foundation for cultivating positive social connections and managing emotional responses (Dağal, 2017). Recent social-emotional learning programs for preschool children in the USA have focused primarily on developing self-regulation. The development of emotional understanding, social interaction skills, and problem-solving skills can combine to enhance a preschool child's ability to manage aggressive and intrusive behaviors (Bierman & Motameti, 2015).

Developing self-management and relationship skills is also a primary objective in the European-developed programs but with slightly less emphasis than the US programs. The European-developed programs prioritize the cultivation of self-awareness and responsible decision-making to a slightly greater extent compared to the preschool SEL programs developed in the USA. Research indicates that fostering self-awareness and cultivating positive attitudes toward oneself, encompassing aspects such as self-image, self-esteem, and self-confidence, can serve as a protective factor for children, protecting them against social vulnerability and emotional challenges (Papadopoulos, 2020). SEL programs, which enhance children's self-awareness, social awareness, and responsible decision-making, contribute to the improvement of learners' attitudes and beliefs about themselves and others. The development of these essential skills establishes the

groundwork for fostering productive citizenship (Eklund et al., 2018). Our results are consistent with the finding that the European approach places a greater emphasis on transforming attitudes, beliefs, and values, whereas SEL programs in the USA tend to concentrate more on the development of specific skills (Weare & Nind, 2011). Our findings also indicate that programs from the USA place a slightly higher emphasis on the development of academic skills, whereas European programs prioritize fostering prosocial behavior and enhancing resilience.

Evaluation studies suggest that SEL programs originating from the USA are more successful in fostering self-awareness and self-management, while European programs exhibit greater efficacy in nurturing relationship skills. However, both groups show similar results in developing responsible decision-making and social awareness. Furthermore, all of the preschool SEL programs examined in this study were successful in developing at least several SEL skills, and none of the programs had adverse effects on children's development.

The age of children plays a crucial role in shaping the teaching techniques and demonstration tools employed by teachers to foster SEL skills. We found that tools and methods favored by SEL programs for preschool children include puppets, games, dialogue and discussion, and practical application of newly acquired skills (cf. White et al., 2017). European programs more frequently incorporated stories, role-playing games, and modeling, while active learning, science, arts and daily schedules were present in one of the American-origin programs. Active parental participation is a fundamental element in the majority of preschool SEL programs (Gershon & Pelitteri, 2018). The enhanced significance of parental involvement is underscored by recent meta-analysis findings, indicating that engaging in home-based activities significantly contributes to the development of social-emotional skills and mitigates social-emotional and behavioral problems (Smith et al., 2020). In the programs we evaluated, parental involvement was highlighted; however, only one American and one European program included take-home activities, while another European programme provided a parents' manual.

### *Limitations*

It is crucial to acknowledge the factors that restrict the generalizability of our study's results. The programs analysed were selected from a compendium and programs not featured in the compendium were not incorporated into our analysis. We analyzed studies of programs available in English and conducted in Europe, which were not always sufficiently detailed, so important program elements could have been omitted from the analysis. Our analysis focused exclusively on outcomes related to children, and as a result, information regarding teachers' classroom management skills, teachers' social and emotional skills, teacher-child interactions, and parent-child relationships, was not addressed. Another limitation worth noting is the inherent subjectivity of the inductive content analysis method, although efforts were made to mitigate this by employing two independent coders who achieved high intercoder reliability. In the future, conducting a comparative analysis across countries using quantitative methods and addressing various aspects of the programs, would help to make a contribution to this field.

## Conclusion

In our study, we investigated whether there are differences in the aims, results, strategies and demonstration tools used by teachers in US-originated and European-developed preschool SEL programs implemented and evaluated in Europe. There are no marked differences between the content of the US and European preschool SEL programs analyzed, but underline by Weare and Nind (2011), US programs tend to develop skills, while European programs focus on changing attitudes and beliefs. All the programs assessed were effective in cultivating SEL skills, yet variations exist in their objectives and achieved outcomes. Teaching methods and demonstration tools are tailored to the age of preschool children, and we observed differences in these aspects among the programs. Recognizing these distinctions can be highly beneficial when seeking a preschool SEL program for particular groups of children, making it possible to make an informed choice that aligns with the specific needs. In the future, it would be useful to carry out a comparative study using quantitative methods between SEL programmes developed in different countries, in order to more accurately identify the differences that characterise the programs from different regions and cultures.

## Conflict of interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this manuscript.

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