



Cyber Safe Generation: Digital education by design

# Scoping and needs analysis

EXECUTIVE SUMMARY (IO1)



Co-funded by the  
Erasmus+ Programme  
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## Project Overview

CyGen is a co-funded Erasmus+ Key Action 2 strategic Partnership. The project engaged directly with children (aged 8-13), teachers and parents in four European countries (United Kingdom, Belgium, Denmark and Greece) to:

1. Explore the digital opportunities and challenges as these are experienced by these groups;
2. Develop a novel participatory design methodology and methods in order to work collaboratively with children and young people;
3. Co-design a culturally, linguistically and age appropriate open-access multimedia education programme, a 'web app' with children in the four member states. Designed by children, for children, the web app recognises and builds on children and young people's knowledge and experience to support their safe, informed use of the Internet;
4. Produce online open-access guidance encompassing lesson plans and pedagogical resources to support teachers and educators in primary and secondary schools in diverse European education settings to support children's online safety

The CyGen project was created to understand the opportunities and challenges faced by children when they go online. The project worked with children, young people, teachers, parents and academics to map these opportunities and challenges and, with children, to design educational resources to support children's safety online. The project was unique in that children helped the project team to develop and evaluate an evidence-based digital educational programme to promote young peoples' online citizenship and safety across the four participating European countries (UK, Denmark, Belgium and Greece).

The outputs created for this project are:

-  IO1: Scoping and needs analysis
-  IO2: Participatory Design Model
-  IO3: Design workshops
-  IO4: Co-designed digital education programme
-  IO5: Evaluation

Further information regarding the evidence-based digital educational programme can be viewed via our website <http://cygen.eu/resources/>



## Executive summary:

# IO1 Scoping and needs analysis



This intellectual output maps the global, EU-wide and country specific challenges and opportunities facing children and young people in Belgium, Denmark, Greece and the UK on their safe, healthy use of the Internet through:

1. An analysis of the international, EU and country-specific policy and practice literature and research evidence on the digital challenges and the pedagogical approaches currently used in formal and informal educational settings within the partner countries;
2. A co-produced needs analysis undertaken with partner schools in each of the four participating countries to identify the digital challenges as described by children, teachers and parents and the everyday practices that they use to stay safe online.

In focusing on both the extant policy and research and the perspectives of stakeholders, the scoping review highlights best practice and gaps in existing pedagogy and evidence as outlined in the literature and experienced by children, teachers and parents in each of the four countries. This evidence provided the foundation for the participatory methodological approach and the cyclical co-design underpinning the development of the digital education programme.



## Analysis of the international, EU and country-specific evidence

Key findings from the international, EU and country-specific policy and research evidence are:

### The digital environment: opportunities and challenges

- 🌐 The digital environment offers under-utilized opportunities for learning, creativity and social connectivity (Holloway et al., 2013);
- 🌐 While online activities are increasingly embedded into children's everyday lives at home, at school and at leisure (House of Lords, 2017; Livingstone, 2014), young people across the globe face unequal and rising online risks with countries meeting these challenges with varying levels of success (Haddon & Livingstone, 2012; [Global kids online](#); [EU Kids online](#));
- 🌐 Gaps in digital provision for young people across member states include a lack of awareness and application of approaches to teaching and learning and varying and sometimes inadequate application in schools (BIK, 2014; Zaman and Mifsud, 2017);
- 🌐 The limitation of pedagogical approaches to a narrow focus on e-bullying and e-safety and evidence that such programmes have limited impact on children's approaches to online risk (Enable, 2015);
- 🌐 A widening gap in knowledge, in particular, about younger children's experiences and how to support them in a constantly changing digital landscape (Ólafsson et al., 2013).

### Addressing opportunities and challenges with children: building children's digital resilience

- 🌐 A growing recognition among international policy makers of the importance of supporting children to engage effectively and safely in the digital world (Children's Commissioner 2018; Erstad and Amdam, 2013);
- 🌐 An emerging evidence that children need to be supported to develop strategies to help themselves through engaging with appropriate opportunities & challenges online rather than through avoidance & 'safety behaviours' ([Global kids online](#); [EU Kids online](#); [UK Council for Internet Safety, 2019](#)). Evidence that this works best when it starts with children's knowledge and experiences (Chakravorty, 2016) and the ways in which this can be



supported by role play, group cooperation and small group discussion (Herbert and Lohrmann, 2011);

- 🌐 Acknowledgement of children's rights to participate and be heard (UNCRC, Article 12) and recognition that engaging pupils in developing educational programmes has an increased likelihood of successful impact (McWhirter, 2008; Enable, 2015).

## Empirical data collection

Key findings from the needs' analysis undertaken with children, teachers and parents in the partner schools in Belgium, Greece, Denmark and the UK on the digital challenges and everyday practices that they use to stay safe online are:



### Opportunities from the internet: children's perspectives




- 🌐 Access: The children who participated in CyGen told us that they use a range of different devices to access the internet, including mobile phones, tablets, gaming consoles and laptops/ PCs. Children in Denmark were given an iPad to use at school and home.
- 🌐 Social connectivity: Children across all partner countries told us that they share content and connect socially with friends, enabling them to feel engaged with peers and part of a community. Spending time online enables children to follow the experiences of their friends, and to share their own content in return. Children valued the internet as a source of information for homework and as a way of consolidating and extending their knowledge.
- 🌐 Embedding familial relationships: Gaming consoles and apps provided children with opportunities to play with older and younger siblings and parents which the UK and Danish children reported as extremely important in their relationships.
- 🌐 Children as producers of content: Children in the UK showed us how they used the internet to create content (films, games) which they shared with friends and family (in the UK) and more widely (in Denmark).
- 🌐 Children as consumers: Children used online resources to develop their knowledge and skills (e.g. in relation to online games or hobbies such as sports and cooking).





## Challenges: Children's perspectives

Children told us about a range of challenges that they experience when spending time online; some were drawn from stories that they had been told by adults, older siblings or peers, whilst others were examples of situations that they had experienced themselves.

-  Unequal access: All the children are using a range of technologies to go online. However, children across the partner countries have unequal access to technologies and as a consequence unequal opportunity to engage with the digital environment. Greek children in the study were less likely to have their own devices and more likely to use familial devices or parents' mobile phones. Teachers in our Greek school noted that the limited availability of up to date technology and limited training restricted their ability to support children's digital engagement. Within our Danish school, children were given iPad at the start of their education which enabled them to use a range of educational and fun applications on a regular basis.
-  Protecting personal information: Children were aware of the importance of taking care of personal information, explaining that when information was shared online it was almost impossible to control what happens to it. While generally they knew about the application of parental controls and the implications of their own personal digital footprints, the extent to which this knowledge impacted on their online decision-making differed between the partner countries.
-  Online safety and emotional wellbeing: Children discussed the potential problems associated with their use of particular games, through which they could be contacted or even threatened by individuals who were previously unknown to them. Some children noted the presence of content online which could impact on their wellbeing, for example sites or games which supported self-harm. The potential for being bullied online was also a key theme in some of our countries (Greece and Denmark). Children had a range of strategies for keeping safe online, including asking siblings and parents for support. Generally, children felt that teachers should teach them about keeping safe online, whilst parents should support their decision making in practice. Children valued the support of trusted adults to help them to stay safe.





- Constantly changing technology: While parents and teachers wanted to support children, they were concerned with the speed at which technology developed. Parents and teachers expressed anxiety that their own knowledge quickly became outdated, limiting their capacity to support children. Teachers and parents also noted the importance of adults supporting children to learn and adapt for the future, where technologies – and associated challenges and opportunities – would continually change.

### The role of parents and teachers: supporting children’s digital engagement

- Children told us that parents and teachers play a key role in supporting them online. Parents were considered an extremely important part of children feeling safe online. Some children engaged regularly with their parents online, whilst others reported observing their parents’ online practices. Children reported how parents:
  - Use history on devices to see what’s been looked at;
  - Often connected to children’s accounts so that they can see what is happening in them
  - Use parental controls;
  - Talked with them about the use of technology, focusing on the challenges associated with keeping safe online.
- Parents shared examples of the ways in which they supported their child’s use of the internet, ranging from restricting access, to boundary setting (boundaries for children to apply to their use of the internet), developing and maintaining open communication, and sharing experiences online.
- Some parents, for example in Greece, reported low levels of confidence in managing their children’s online participation. As a result, they tended to both restrict access and sit alongside their children as they engaged with the internet. In the UK and Belgium, children that we spoke to could only generally access the internet in familial areas of the home (living rooms, dining rooms etc). In Belgium, parents also reported that they hoped that their children would learn to go online safely at school.
- Teachers across the countries reported different ways of working with parents to support children, including sharing information with parents (e.g. through information events and letters home). In Greece, teachers reported that some parents appeared to lack confidence in supporting their children.





This was also reflected in Greek parents' contributions, whereby they felt that children were safer going online at school.



Parents and teachers across all countries reported anxieties about the constantly changing landscape of websites, games and digital hardware. They felt that they faced increasing challenges in supporting children in developing their digital literacy and keeping them safe online.





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## The Partnership



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