2019

CyGen

Cyber Safe Generation: Digital education by design

Participatory Design Model

EXECUTIVE SUMMARY (IO2)

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/

Co-funded by the
Erasmus+ Programme
of the European Union

Executive summary:
IO2 Participatory Design Model

CyGen's participatory design model is based on the methodology of participatory design. Put simply, this means that those who are the users of information technologies – in this case the CyGen digital education package – should have a central place in their development (Simonsen & Robertson, 2013). Participatory design literature incorporates a set of theories, practices and studies which engage end users fully in the design of technologies (Yarosh & Schueller, 2017).

CyGen was designed around a series of Design Cycles: a series of development activities completed in each partner country. The first design cycle was completed in the United Kingdom, the second in Denmark, the third in Belgium, and finally the fourth in Greece. This design enabled us to fully embrace the principles of participatory design, developing our digital education package alongside data collection and digital education package development in each partner country.

The principles of participatory design align to the values regularly used by the international CyGen team in their work (Lomax, 2012; Pyer & Tucker, 2017) across all our partner countries. The planning that underpinned the project developed from a single key focus; that children's voices should be central to the research and its outputs. Within the project, we worked with children to position them as co-designers. We also worked with parents and teachers. They – along with children - were our key stakeholders; their voices and opinions underpin both our findings and the outputs of the collaboration.

Child-centred methods were combined with flexibility of delivery within the project's Design Cycle. Involving them in this way was key to ensuring that the educational outputs reflected their needs. The process of involvement in and of itself was also

designed to support their development (Biggeri et al., 2019). Children in Denmark supported the initial design and testing of the Design Cycle and the associated toolkit. This process of engagement and feedback was continued throughout each of the four design cycles with key messages about 'what works' fed-forward to the other partners. In these ways, the project sought to "investigate, understand, reflect upon, establish, develop, and support mutual learning between multiple participants..." (Simonsen & Robertson, 2013 p. 2).

The **Design Cycle** incorporated three phases, as shown below:
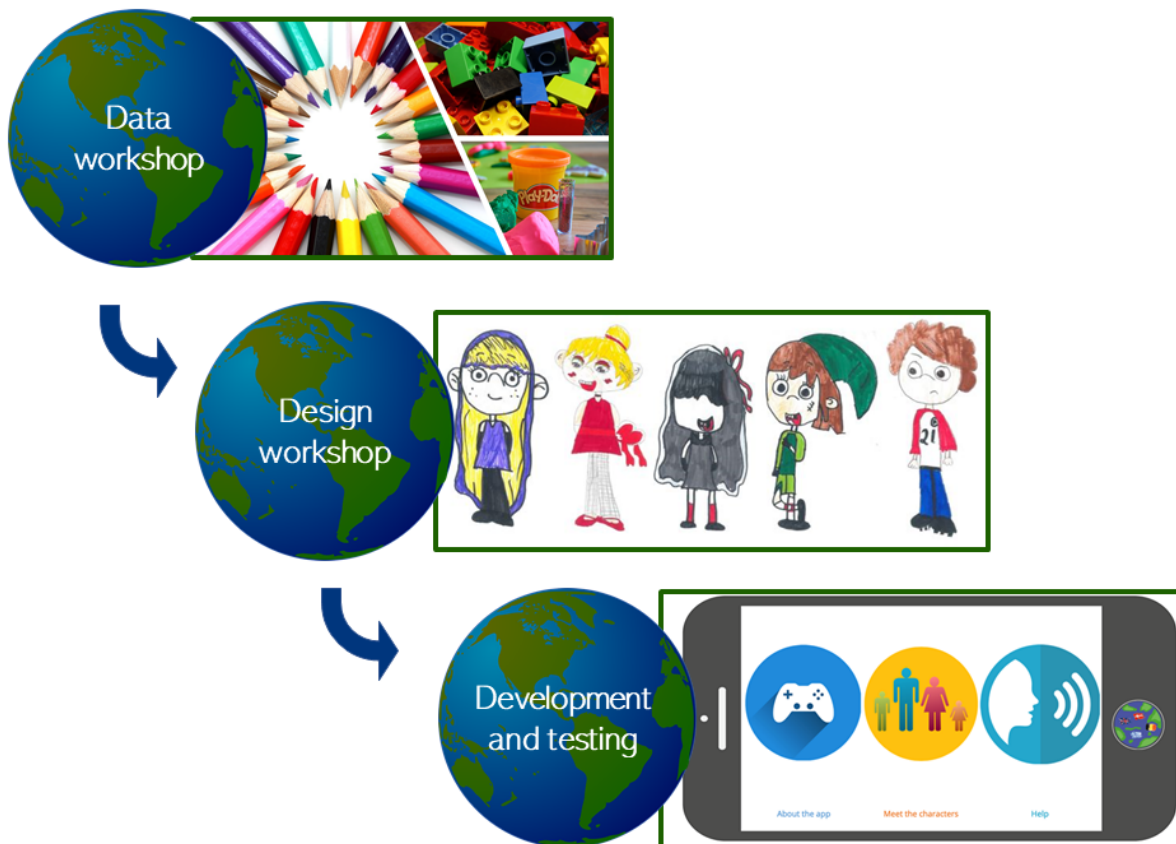
During the **Data Workshop** phase, we completed:

- 🌐 A data workshop to find out about how children in each of the four countries access the internet, what they use it for, and some of the challenges and opportunities that comprise their experience;
- 🌐 A focus group with the Young People's Panel (see below) to distil the key points arising from the data workshop;

- Focus groups and interviews with parents and teachers to develop an understanding of the ways in which they support children's engagement with the internet.

During the **Design Workshop** phase, we completed:

- A design workshop to continue to build example situations that the children we were working with had faced online, and how these might contribute to the design of the Webapp;
- A focus group with the Design Team (see below) to distil the key points from the design workshop, which were then shared with the Belgian Webapp developers;
- Focus groups and interviews with parents and teachers, giving further ideas for the Webapp and supporting pedagogic tools. In some of the countries, this part of the data collection was completed by children, with the support of CyGen researchers.

During the **development and testing** phase of the project, we completed:

- Review and feedback of the Webapp with the Quality Team;
- Delivery of a trial lesson from our teacher guidance;
- Short interviews with children, teachers and parents to obtain feedback about the Digital Education Package, and the project as a whole.

During the project, **children assumed roles within the project** alongside acting as participants. These roles included acting as members of:

- The Young People's Panel: supporting the CyGen team in each country to capture the key messages arising from the Data Workshop;
- The Design Team: supporting the CyGen team in each country to capture the key dilemmas arising from the Design Workshop, and participating in sharing this information with the Belgium Webapp developers;
- The Quality Team: reviewing the prototype Webapp with the CyGen team and offering initial feedback to the developers.

References

Biggeri, M., Arciprete, C. & Karkara, R. (2019) Children and Youth Participation in Decision-Making and Research Processes [Online]. In: *The Capability Approach, Empowerment and Participation*. London: Palgrave Macmillan UK, pp. 193–221. Available from: <http://link.springer.com/10.1057/978-1-137-35230-9_8> [Accessed 11 October 2019].

Lomax, H. (2012) Contested Voices? Methodological Tensions in Creative Visual Research with Children. *International Journal of Social Research Methodology* [Online], 15 (2), pp. 105–117. Available from: <http://oro.open.ac.uk/31040/1/Lomax_(part_edted)_14.1.12.docx>.

Pyer, M. & Tucker, F. (2017) 'With Us, We, Like, Physically Can't': Transport, Mobility and the Leisure Experiences of Teenage Wheelchair Users. *Mobilities*, 12 (1).

Simonsen, J. & Robertson, T. (2013) Participatory Design. In: *Routledge international handbook of participatory design*. Routledge, pp. 1–17.

Yarosh, S. & Schueller, S. M. (2017) Happiness Inventors: Informing Positive Computing Technologies Through Participatory Design With Children. *Journal of medical Internet research* [Online], 19 (1), p. 14. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28096066> [Accessed 11 October 2019].

The Partnership

University of Northampton

Hud CRES

2º OLOHMERO DHMOTIKO SXOLEIO KALAMATAS

Bring ideas to life
VIA University College

UC Leuven Limburg
MOVING MINDS