CoronaQuest: Using a serious game to engage schoolchildren and their families in the prevention of the disease

Summary of the initiative

For a safe reopening of schools and sport and leisure activities, it is vital that children and adolescents understand and adhere to public health and social measures to limit the transmission of the coronavirus disease (COVID-19). To engage children and adolescents in a playful way in protective actions, the Department of Education, Youth and Culture of the Swiss Canton of Vaud developed a serious game called CoronaQuest.

Besides familiarizing children with the uptake of public health and social measures, the game provides emotional support to those going back to school after a period of lockdown by offering a calm and safe moment and encouraging everyone to be kind to each other. CoronaQuest is an online card game in which children can play against Corona using protective actions and the support of parents, teachers and everyone in the school environment. Currently, it exists in 12 languages and there is potential for further translations and adaptations if appropriately supported by relevant authorities.

Context and relevance of the project

CoronaQuest was launched on the day schools reopened after an eight-week lockdown in Switzerland. Its objective was to help children return to school feeling confident and supported by educating them in the use of public health and social measures against COVID-19 in a fun and interactive manner. The developer’s experience in programming serious games enabled its development within only 10 days. Swiss-based DNA Studios provided operational support and the State Counsellor of Vaud validated the development of the game, which ensured government funding. The game also serves as a debriefing tool to talk with children about their emotions during this unprecedented time.

A Save the Children survey of over 13 000 children in 46 countries in 2020 found that 83% had increased negative feelings due to the pandemic. Reports of unpleasant feelings were even higher, at 96%, when schools had closed for extended periods. Lockdowns caused stress, and likewise returning to school after a long period of isolation triggered concerns and anxiety in many children and families.

Photo above: School children playing CoronaQuest in groups to discuss the impacts of recommended safety measures on their lives, Switzerland, June 2020. Credit: Julien Schekter.
Summary of the analysis

Innovation factors

CoronaQuest is specifically designed to empower children to fight proactively against COVID-19 by engaging in public health and social measures and openly discussing their feelings and worries in relation to the pandemic.

In educational settings, this project goes beyond traditional health communication methods such as posters or lectures. It uses a medium that is familiar to children and which they associate with fun. The interactive nature of the game promotes retention of the educational elements and gives children a sense of self-efficacy and relevance in the fight against the disease. The game takes a comprehensive approach covering aspects such as symptoms and preventive actions, as well as issues such as loneliness, lack of social interactions and boredom.

One aim of the game is to promote empathy and mutual support. This was integrated in the game by adding cards with people that can support children in living their "new normal" at school such as teachers, parents, janitors and nurses. These cards help the player to reach higher levels in the game and therefore create a positive impression of the depicted person's role.

Accuracy of scientific information

To ensure the accuracy of information, the team collaborated with the cantonal health promotion authority responsible for school settings. All health information was provided by the cantonal health authority and the Swiss Federal Office of Public Health.

The cards recommending protective measures were reviewed by health specialists to provide the most suitable evidence-based practices. The team made sure that the messages were conveyed through simple words or phrases, while maintaining scientific accuracy.

To keep the game relevant and accurate over the course of the pandemic, the team adapted the game as new guidance evolved.

Impact on knowledge, attitudes and behaviour of the target audience

No formal impact evaluation has been conducted to date. However, some of the feedback provided by children, teachers, administrators and parents was captured in a video providing information on the impact and features of the game for people interested in promoting it.

User analytics of the game were obtained using a Matomo (Piwik) JavaScript Tracker if users consented to this option. As of November 2021, the game has been played around 500 000 times in more than 90 countries, mostly in Switzerland (49.0%), France (35.3%), the United States of America (6.3%) and Brazil (2.4%).

CoronaQuest was recognized by Game Connection Europe in 2020 as the "Best social effect / game beyond entertainment". It won the 2021 award of the International Educational Games Competition. The team also won the Serious Games Showcase & Challenge in the 2021 Best Government Serious Game category.
Gender equality, equity and human rights considerations

The project acknowledged the importance of gender equality in the design process by representing men and women in similar numbers and roles. The designers further tried to address traditional professional role stereotypes by displaying a female doctor and a male nurse in the game.

The simplicity of the game facilitates its translation into other languages and makes it suitable for all literacy levels. To make the game accessible to children without stable internet connections and/or reduce children’s screen time, the cards of the game are available in printable format.

CoronaQuest further comes with an instruction manual for teachers and parents to guide them in playing the game with young and older children. The game is open ended, encouraging adolescents to be creative and challenge the mechanism of the game, improve their strategy, and invent new cards. For example, some new cards proposed by the children have been introduced in the game, such as a card to represent journalists.

Limitations

One of the project’s limitations was the capacity to scale up the game and transfer it to other countries. Due to limited human and financial resources, the developers could not engage in targeted outreach to foreign education and health authorities. Global case study repositories can help to bridge this gap and provide a platform for international collaboration and exchange.

The developing team encountered hesitancy to use innovative educational tools in the form of serious games during the initial phase of the project. This can be addressed by raising further awareness of the benefits of such games among teachers, parents and school administrations.
Looking forward

The responsible team has no plans for the project’s future yet. If directives for protective measures change when the next school year begins, the project may introduce an updated version of the game adjusted to the revised guidance and recommendations.

References


iii. CoronaQuest video (https://coronaquest.game/about#video).


Illustrations by Sam Bradd

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