



# The Gyroscopic Classroom: Creating Equilibrium in a Virtual Learning Environment (Youth First Aid Case Study)

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Shelly King-Hunter (Longmore) and Joanna Muise

Canada

## Here's our context

The COVID-19 pandemic gained momentum across Canada in early March 2020, rapidly and unexpectedly closing most public interaction spaces, including schools, workplaces, and recreation facilities and recommending limitations in personal contacts. In less than one week, Canadians shifted from unrestricted lifestyles to being quarantined within their homes. Initial expectations of COVID-19 were focused on a short isolation period of one to two weeks, following which many Canadians believed they would be able to return to regular activities. As the understanding of the COVID-19 pandemic rapidly evolved, it became clear that returning to the previous living conditions would be much further into the future than initially anticipated.

In response to radically shifted personal and professional routines and protocols, as well as individual and community restrictions regarding mask wearing and physical distancing, families began seeking out virtual training activities for young people to participate in while schooling was disrupted. To support this, the Canadian Red Cross (CRC) accelerated the development and adaptations of current youth programs to serve urban and remote communities and virtual learning circumstances better. This initiative allowed youth program leaders to explore new options for delivering our existing Youth First Aid programs – *Stay Safe!* and *Babysitting* – using virtual meeting platforms (e.g.: Zoom).

## Here's what we're doing

Our first aid education philosophy promotes collaborative, learner-centred engagement focused on building confidence while promoting helping behaviours. Pre-pandemic, youth first aid courses were offered exclusively through in-person (face-to-face) delivery. Frequently, parents/guardians would seek youth first aid courses to provide their child with activity during holidays from school or on professional development days when schools were closed. Often hosted in a single day-long session (similar to day camp programs), course facilitators would create programming for up to thirty youth - which is similar to our public school class sizes in Canada.

Using the current *Babysitting* curriculum, we started exploring learning objectives that may be impacted by changing to a virtual delivery model (using a synchronous delivery approach). Facilitators for this project were currently active Youth Leaders, and the target learner audience was youth aged 11-15 years. Sessions were facilitated in English and French. As CRC's first virtual facilitation pilot, we also assessed the usability and application of functions within virtual meeting platforms.

Confident that we could support the intended learning objectives in a virtual space, we thought about structuring a play-based learning approach. We considered the following instructional techniques used in our

## View from the field

physical classrooms: brainstorming, small-group work, presentations, role-play, practice session, scenario, game, lecture, question and answer, demonstration, discussion, field trip, guest speaker, case-based learning/storytelling, and self-guided learning activities.

The pilot included three different approaches. Each approach maintained the same learning objectives and completion criteria. In each format, learning took place over multiple sessions.

- 1) Instructor-led (synchronous)
- 2) Instructor-led (synchronous) augmented with self-directed learning activities (asynchronous)
- 3) Instructor-led (synchronous) augmented with family learning activities (asynchronous)

Following successful testing of the *Babysitter* program, the same principles were applied to the Stay Safe! curriculum – targeted towards learners aged 9-11.

Particular attention was paid to the following considerations during testing:

- Principles for safe supervision in a virtual space (including the need for learners to maintain a live video feed during the session, arranging for backup communication modes with in-home adult supervision, a reduction in the facilitator to learner ratio, and maintaining local in-home adult supervision where learners were minors).
- Adjusting the course format to include multiple segments of two hours or less – lower dose, higher frequency of learning.
- Engaging young learners remotely through collaboration and play – mindful of reducing lecture or passive engagement.
- Repurposing existing facilitation tools (or modifying their use) - such as media slides and printed learner tools.
- Providing resources critical for participation vs sourcing within the learner's environment (e.g., dice for turns in an activity, markers and paper for idea sharing).
- Incorporating select improvised learning aids (ex: dish-washing gloves) when other materials were unavailable.
- Roles of family members who are in shared spaces to the youth learners.
- Solutions for technical glitches (connection, platform, or device-based).
- Using materials designed for print in a virtual space.

The evaluation strategy involved collecting feedback from Youth Leaders, learners, parents/guardians, and persons involved with supporting learning.

## Here is what happened

This pilot was a rich learning experience. Youth learners taught us about using the meeting platform (functions that were new to us, such as breakout rooms) and how they like to connect in a virtual space. We found learners to be very resilient - the adults (ourselves included) were more apprehensive. Since this pilot took place early in the pandemic, many of the social norms that have come to accompany online learning spaces had not yet been established. Youth, their families, and the facilitators explored a new learning context together and created understanding as a community.

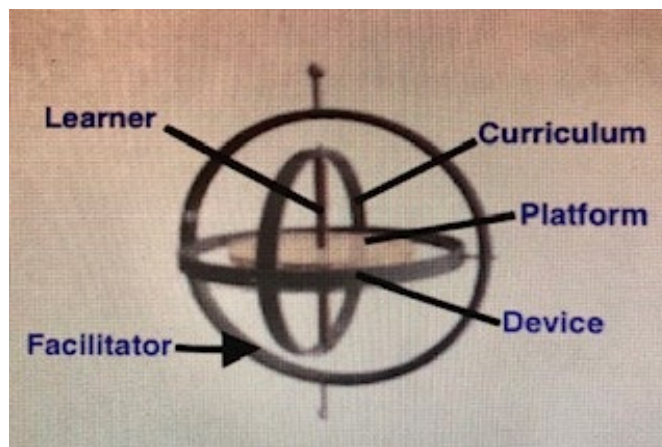
Our key learning as pilot leaders, is that virtual facilitation relationships (between the learner, facilitator, platform, learner's device and local environment, the curriculum, etc.) can be more complex than our previous experiences with in-person learning. It's not to say that in-person learning is without complexity; indeed, it also has unique nuances. It was the experience of our pilot facilitators (who had considerable prior knowledge of face-to-

face delivery of these courses) that the virtual space would present complexities not experienced previously. Our experience resembled a gyroscope - the inputs within a virtual learning space are in constant motion and are unique to each learner. In a group of ten learners, you will experience the impact of ten different internet connections, ten different learning devices (tablets, mobile phones and computers – each with different operating systems and functionalities), and ten different home environments filled with family members and pets. In reflection, we underestimated the time and effort that facilitators would need to dedicate to stabilizing the moving components of the gyroscope (each learner is a unique ecosystem) and balancing the group's momentum throughout the course compared to our prior in-person experiences.

Facilitators must be continually monitoring the platform (functionality, accessibility, and inclusivity), reacting to the learner's local environment and personal device, the group's relationship to the learning themes, and the intended outcomes. This balance is challenging while synchronously managing these forces for each learner in the intervention and becomes more complex than our prior experience with in-person learning. For example, an early lesson was that while our platform (Zoom) would allow for large groups of learners, safety supervision and facilitation were compromised when the learner video streams were split over more than one screen and required the facilitator to toggle to see them all. As a result, we reduced class sizes so that facilitators would be able to monitor all video feeds on a single screen.

Before facilitating virtual learning, beyond adjusting the learning activities, facilitators recognized the need to reflect on the delicate balance of inputs and consider how they can adjust their practice in the variables of this new space.

**Figure 1: The learning gyroscope (Image is licensed via Creative Commons)**



We personally coached the small group of facilitators through lesson planning during the pilot. Following our pilot phase, we began working on support tools for Youth Leaders to support the scalability of this delivery model throughout Canada. Several new tools were created:

- A delivery guide that details the nuances observed in virtual learning spaces (comparing and contrasting to our prior experience with in-person learning).
- A webinar where pilot facilitators shared their experience with other Youth Leaders, offering guidance on best practices and answering their questions.

## View from the field

- Examples of how each of the instructional techniques used within CRC first aid programs (example: brainstorming, small-group work, presentations, role-play, practice session, scenario, etc.) can be modified for application in a virtual space.
- Sample lesson plans used during the pilot.

Through the pilot process, we encountered some critical lessons learned of our own:

- Expect the unexpected. Your action plan for a power outage, poor internet connection, or other type of emergency will be different when facilitating virtually than in-person. Consider how you need to prepare differently for this learning space where you will be at a distance from the learners. Secondary modes of communication with the learner's in-home adult supervision are critical.
- Having a peer co-facilitate with you is incredibly helpful – often, we had one person facilitating and the other acting as their 'producer' (helping set up the next activity, checking in with parents or learners, etc.). They could also take over if the primary facilitators internet connection was compromised.
- Be very mindful of how much passive learning you include in your lesson plan (example: lecture, presentation, etc.). Sitting still can challenge the best of us to stay engaged. Some topics may benefit from a brief presentation, but our advice is to keep your lesson plans as active and learner-driven as possible.
- Embrace the unexpected. An unplanned visit from a younger sibling may initially feel like a distraction. Still, it can be an excellent opportunity for the group to pause and identify the age-appropriate snacks or games they would utilize if babysitting them. You can't always control the interruptions in a virtual classroom, but you can manage your reaction to them and draw benefits from them in your lesson.
- Regardless of how experienced you are with in-person (face-to-face) delivery, transitioning to facilitation in virtual spaces will likely humble you initially. Be careful of making assumptions – the strategies you would generally rely on in-person (example: to refocus learners or create connections among the group) may not work the same way in a virtual space. In addition to your lesson plan, have backup activities ready if needed. Be patient and kind to yourself. As a mentor once shared, this is most definitely an instance where practice makes *better* (not perfect).

## Questions for readers

1. Are there other measurement strategies we could employ to indicate a change in learners when engaging them virtually?
2. How can this approach be adapted to different populations? (Example: older learners, non-normative groups, certification-based programs, isolated learners, etc.)
3. Are there specific learning activities which we could use that improve the interactive, tactile use of the learner's local (home) environment?

## Corresponding authors:

Shelly King-Hunter (Longmore) - Canadian Council for First Aid Education, Canadian Red Cross [shelly.longmore@redcross.ca](mailto:shelly.longmore@redcross.ca)

Joanna Muise - Canadian Red Cross [joanna.muise@redcross.ca](mailto:joanna.muise@redcross.ca)



## Response from a peer reviewer

The purpose of this paper is to provide a reflection of the virtual first aid curriculum for children developed by the Canadian Red Cross (CRC) during the COVID-19 pandemic when social/physical distancing policies limited opportunities for face-to-face learning. The CRC launched 2 separate programs aimed at different age groups, each of which were converted from previously existing in-person programs. The authors suggest that the integration of all components that comprise a virtual learning environment is significantly more complex than that required by face-to-face learning.

This is an interesting example of how educators were forced to quickly adapt and convert to a virtual based learning environment. The authors appropriately ask how efficacious the virtual environment was in achieving the outlined learning objectives. They seek feedback for improvement, including on how to evaluate the success of their approach and adapt their approach to other learner types. Some suggestions are provided below to stimulate further discussion from readers:

1. **Measurement strategies:** Consider utilizing pre- and post- learning tests, or intermittent quiz questions during the didactic sessions asking learners to recall key points from what has just been taught or discussed. Games could also be used, drawing on freely available tools such as [Kahoot](#).
  
2. **Adapting the approach to different populations:** Consider applying [Bloom's Taxonomy](#) when developing and altering the curriculum for different learners and environments. Adopting a virtual approach to any curriculum is potentially feasible, but taking into consideration certain demographics of the learner will be necessary to fit their specific needs. It is difficult to outline what changes to adopt for each population group, but in general, I suggest taking into consideration
  - a. The learner (younger vs older, comfortable with technology or not?)
  - b. Type of information to be conveyed (knowledge-based vs hands-on skill), and
  - c. Complexity of the information.For instance, in the case of the older learner, this population may not be familiar with virtual meeting platforms and navigating around these platforms. It therefore might be ideal keeping interactions with the platform simple and consider adopting a more traditional approach (synchronous learning). On the other hand, more technologically experienced learners may benefit from incorporating discussions using breakout rooms with consideration adding an asynchronous component (flipped-classroom).
  
3. **Improving the interactive, tactile use of the learner's local (home) environment**

Try to incorporate case-based scenarios and role-playing where the learner's local environment is the location of the scene. Using family members, dolls, stuffed animals, or even a pillow with tape outlining a face to represent a patient can assist with creating a simulated environment for the learner to practice a skill.

Review kindly provided by Dr Amy Kule, Loyola University Medical Centre, Illinois, US