Chapter 12
Perspectives Before and After COVID-19 for Technology-Based Education of Pediatric Cancer Patients

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ABSTRACT

This research has as theme the teaching and learning processes mediated by digital technologies aimed at young people undergoing oncological treatment. In this context, between 2015 and 2020 the authors developed a project called "learning with technologies workshop" in which patients' writing, reading, and logical reasoning skills were developed, using mobile devices tablets. During the COVID-19

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pandemic, the workshops were interrupted. In 2023, the authors resumed the project, now orientated by new trends in post COVID-19 education with technologies. Therefore, this chapter aims to discuss the trends prior and post COVID-19, identifying changes made to this research by analyzing an experience report of the new model of workshops developed in 2023. The results show that, in comparison, pre COVID-19 workshops were centered in individual tasks with little to no autonomy. In contrast, in post COVID-19 workshops students were incentivized to learn with autonomy, creativity, and citizenship in a digital culture.

INTRODUCTION

This research has as theme the teaching and learning processes mediated by digital technologies aimed at young individuals undergoing oncological treatment. According to the National Cancer Institute (Brazil, 2019) pediatric and adolescent cancer ranks among the main causes of mortality due to illness in the age group of 0 to 18 years in Brazil. Young individuals undergoing oncological treatment experience school absence during the treatment, receiving support from the school through distance learning or home-based assistance.

Technological resources can be an alternative for teaching patients undergoing oncological treatment (Brandao et al., 2019; Doorenbos et al., 2020; Kemp et al., 2021). The study of new methodologies enables the development of learning practices tailored to the needs of the patients. Concurrently, the development of digital games to assist in pediatric oncology services is a growing research topic (Bruggers et al., 2018; Cederved et al., 2022; Er et al., 2022, Schenck et al, 2023).

Between 2015 and 2020 we developed the "Learning with technologies workshop" project to address the educational difficulties of young people undergoing oncological treatment. The practices took place in an institution supporting childhood and youth cancer, in Brazil. The research aimed to investigate educational practices with mobile devices tablets to support in the scholar reinforcement of pediatric oncology patients. Each year, we developed different educational projects, using technological resources to playful learning activities.

In 2020, the workshops were interrupted due to the COVID-19 pandemic. During the pandemic, it was not possible to continue with the workshops. The patients were part of the at-risk group, needing to remain in isolation for an extended period. Furthermore, it was not also possible to do online practices, because many students lacked the necessary resources to participate in online classes. In Brazil, internet access and mobile devices are not economically accessible for families of low income, especially those facing health issues. Usually, most participants only had access to technology-based education during the workshops.