

Beyond COVID–19: Innovative UDL Implementation in Early Childhood Education

Liton Furukawa

Royal Roads University, Canada

EXECUTIVE SUMMARY

The pandemic impacts children's physical and mental health, and children are now experiencing increased mental health and physical challenges as a result of COVID-19. This chapter presents Universal Design for Learning as a framework for curriculum reform that will improve children's learning experiences and enable more effective planning towards a more inclusive and interactive education method in early childhood education settings. This chapter focuses on a pilot study employing a mixed-methods design that explored how an innovative UDL model—interactive multi-sensory physical movements (IMPM)—was implemented in a kindergarten in Canada. This research is an evidence-based ongoing interdisciplinary study that highlights this new model with the aim of incurring long term benefits for children, parents, and ECE professionals. This research will also benefit the international ECE industry, scholars, researchers, and informed policy makers.

INTRODUCTION

The COVID-19 pandemic initiated an unprecedented crisis across the world. The pandemic impacted children's physical and mental health, and children have experienced increased mental health and physical challenges as a result of COVID-19 pandemic and lockdowns. Traditional classrooms were gradually replaced with blended learning methods. However, difficulties and challenges have been increasing for young children adapting to these virtual methods, especially for children who are

limited by physical disabilities or other difficulties. This chapter presents Universal Design for Learning (UDL) as a framework for curriculum reform that will improve children's learning experiences and enable more effective planning towards a more inclusive and interactive education method in early childhood education (ECE) settings. This chapter focuses on a pilot study employing a mixed-methods design that explored how an innovative UDL model – interactive multi-sensory physical movements (IMPM) – was implemented in a kindergarten in Canada. A case study approach was used, incorporating virtual interviews and observations designed to capture dynamic conversations with, and the experiences of, research participants. This research identified an improvement in ECE professionals' UDL-aligned instructional practices and positive attitudes toward using a new model to inform instructional enhancement through a feasible and accessible new innovative kindergarten model. The opportunities and challenges of applying this model for children at pre-school ages in both mainstream and special education settings with respect to the UDL implementation were discussed. This research is an evidence-based ongoing interdisciplinary study that highlights this new model with the aim of incurring long term benefits for children, parents, and ECE professionals. This research will also benefit the international ECE industry, scholars, researchers, and informed policy makers.

The specific content of each section is described in the following paragraphs. The researcher describes the nature of the problem to be addressed and why it is significant, which serves as a background for this study. This is followed by a discussion identifying current gaps in the research and how these gaps are addressed in this project. There is also a discussion on how the project draws on knowledge gained from previous research.

Background

The Canadian Institute for Health Information (2022) released the newest document, *Child and Youth Mental Health in Canada* (reporting data time until 2020), showing approximately 20% of Canadians aged five to 24 could develop a mental disorder. One in 11 youth in Canada will require medication for mental disorders as Figure 1 illustrates. There has been a 75% increase in visits to emergency departments and a 65% increase in hospitalizations for children and youth with mental illnesses since 2006 (Mental Health Commission of Canada, 2022). Mental illness can be cumulative, oppressive, and involve systemic issues that reappear in children's lives, causing adverse childhood experiences.

29 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/beyond-covid-19/353178

Related Content

Enhancing Web Search through Web Structure Mining

Ji-Rong Wen (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 764-769).

www.irma-international.org/chapter/enhancing-web-search-through-web/10906

Web Usage Mining with Web Logs

Xiangji Huang (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 2096-2102).

www.irma-international.org/chapter/web-usage-mining-web-logs/11109

Constrained Data Mining

Brad Morantz (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 301-306).

www.irma-international.org/chapter/constrained-data-mining/10836

Multilingual Text Mining

Peter A. Chew (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1380-1385).

www.irma-international.org/chapter/multilingual-text-mining/11001

Applications of Kernel Methods

Gustavo Camps-Valls, Manel Martínez-Ramón and José Luis Rojo-Álvarez (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 51-57).

www.irma-international.org/chapter/applications-kernel-methods/10797