

## Chapter 84

# The Student with Complex Education Needs: Assistive and Augmentative Information and Communication Technology in a Ten-Week Music Program

Helen J. Farrell

*The University of Melbourne, Australia*

### ABSTRACT

*Categories of potential research questions concerning trends and issues affecting the education of students with complex educational needs are numerous. For example, it seems that whether one studies musicians and their music, the processes of music, the performer, the composer, or the teacher-researcher, music is often observed as implicated in and determinants of the ways individuals are able to be intelligent.*

*The chapter reports the findings of a research project during which a ten-week music program was developed and implemented in a public special education setting in metropolitan Melbourne, Australia (Farrell, 2007). The program featured the application of information and computer technology and assistive peripherals for a defined classroom grouping of students with complex educational needs that embedded notions of differentiated instruction.*

*Like special education settings and classroom groupings of students with complex educational needs are observed within and across education systems of many sovereign states. However, from an Australian perspective, findings and conclusions suggest future directions in the application of assistive and augmentative information and communication technology for students with complex educational needs.*

DOI: 10.4018/978-1-4666-4502-8.ch084

## INTRODUCTION

Human rights law, regulation, and policy is informed by social and cultural theory that has challenged very powerful economically efficient and politically expedient values with social and cultural values centered on equal opportunity and diversity (e.g., notions of integration, normalization and least restrictive environment; educating all students together) (e.g., Lyotard, 1984). Derrida (1978) deconstructed language by taking pairs of terms by which one may ascribe binary opposites. He thought of one of the pairs of terms as dominant, the Being. He took the side of the minor term, the other, and asked the reader to imagine the minor infiltrating the dominant. Notions of disability and impairment are understood in the context of understandings of whatever is defined as normal or typical. He considered classification of these notions arbitrary and suggested that hierarchies of terms can therefore be dismantled. Derrida coined the term “difference” (from the French: *différance*) that keeps the ear alert to the call of the Other, not of the Being.

Christensen and Rizvi (1996), Gill (1999), Seelman (2000), Skrtic (1995), and Swander and Lubeck (1995) described paradigms that have shifted the location of the “problems” of disability and impairment from the individual to environmental responses to disability and impairment that evolved from the legacy of these scholars, activists with disabilities and impairments and their non-disabled allies. The paradigms frame disability and impairment from the perspective of a social and cultural minority group that is defined as a dimension of human difference and not as a defect. The goal for people with disabilities and impairments is not to eradicate their disability or impairment but to celebrate their distinctiveness, pursue an equal place in society and acknowledge that their differentness is not defective but valued. This social and cultural theory has called for those who advocate social and cultural values to emerge with voices that have produced very positive

effects (e.g., profound influence on social and cultural attitudes toward people with disabilities and impairments).

Core values embedded in human rights law, regulation, and policy in the context of disability include:

- The *dignity* of each individual, who is deemed to be of inestimable value because of his or her inherent self-worth, and not because he or she is economically or otherwise “useful.”
- The concept of *autonomy* or self-determination, which is based on the presumption of a capacity for self-directed action and behavior, and requires that the person be placed at the centre of all decisions affecting him or her.
- The inherent *equality* of all regardless of difference.
- The ethic of *solidarity*, which requires society to sustain the freedom of the person with appropriate social supports.

## BACKGROUND

Reported prevalence of disability and impairment vary widely. In many developed countries, the rates are quite high. Based on census data, the reported prevalence of disability and impairment in The United States and Canada are approximately 19.4% and 18.5% respectively. The reported prevalence in Australia is approximately 20%. Conversely, developing countries often report very low prevalence. Kenya and Bangladesh report prevalence under 1%. These rates vary for a number of reasons: Differing definitions of disability, different measurement methodologies, and variance in the quality of that measurement.

The United Nations promotes the rights and well-being of persons with disabilities and impairments. The Organization’s commitment to the full and effective participation of all persons with dis-

35 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/the-student-with-complex-education-needs/88226](http://www.igi-global.com/chapter/the-student-with-complex-education-needs/88226)

## Related Content

---

### The Differences of Perceived Efficacy Between Pupils and Experts in Fostering 21st-Century Skills

Chi-Syan Lin and Cheng-Ying Lin (2022). *International Journal of Curriculum Development and Learning Measurement* (pp. 1-13).

[www.irma-international.org/article/differences-perceived-efficacy-between-pupils/290386](http://www.irma-international.org/article/differences-perceived-efficacy-between-pupils/290386)

### Detecting Problems of Coexistence: Giving Voice to Students

Carlos Monge López, David Montalvo Saborido and Juan Carlos Torrego (2021). *Research Anthology on School Shootings, Peer Victimization, and Solutions for Building Safer Educational Institutions* (pp. 572-599).

[www.irma-international.org/chapter/detecting-problems-of-coexistence/263489](http://www.irma-international.org/chapter/detecting-problems-of-coexistence/263489)

### The School Experiences of Children with Inflammatory Bowel Disease

Maria Gordon (2016). *Challenges Surrounding the Education of Children with Chronic Diseases* (pp. 1-11).

[www.irma-international.org/chapter/the-school-experiences-of-children-with-inflammatory-bowel-disease/138945](http://www.irma-international.org/chapter/the-school-experiences-of-children-with-inflammatory-bowel-disease/138945)

### Empirical Study of Exporting a University Curriculum: Is It Successful, Is It Profitable, and Is Student Learning Effective?

Kenneth David Strang and Narasimha Rao Vajjhala (2023). *International Journal of Curriculum Development and Learning Measurement* (pp. 1-24).

[www.irma-international.org/article/empirical-study-of-exporting-a-university-curriculum/318120](http://www.irma-international.org/article/empirical-study-of-exporting-a-university-curriculum/318120)

### Computational Thinking in Educational Digital Games: An Assessment Tool Proposal

Halil Ibrahim Haseski, Ula Ilıcak and Ufuk Tutekin (2018). *Teaching Computational Thinking in Primary Education* (pp. 256-287).

[www.irma-international.org/chapter/computational-thinking-in-educational-digital-games/189875](http://www.irma-international.org/chapter/computational-thinking-in-educational-digital-games/189875)