

## Chapter 5

# Instructional Strategies for People With Profound Intellectual and Multiple Disabilities: Overview of Approaches and Two Case Studies

**Laura Roche**

*The University of Newcastle, Australia*

**Jeff Sigafos**

*Victoria University of Wellington, New Zealand*

### ABSTRACT

*Educating people with profound intellectual and multiple disabilities (PIMD) creates a number of challenges. One general challenge relates to identifying and successfully implementing instructional programs for developing and enhancing the person's adaptive behavior, such as teaching communication and social skills and increasing their overall level of engagement. The purpose of this chapter is to provide an overview of three main instructional approaches that have been applied to enhance engagement and adaptive behavior functioning among people with PIMD. These approaches are (1) intensive interaction, (2) systematic instruction, and (3) assistive technology. Two case studies are included to illustrate the use of assistive technology—specifically augmentative and alternative communication devices and micro-switches—with two adolescents with PIMD. This overview and the case studies suggest that the use of systematic instructional tactics to establish functional use of assistive technology can be an effective instructional approach for people with PIMD.*

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## **INTRODUCTION**

The general perspective of this chapter is that people with profound intellectual and multiple disabilities (PIMD) can benefit from educational and habilitation efforts. While providing an effective instruction to such individuals can be challenging due to the significant nature of their intellectual and physical impairments, there is some evidence to support the use of a number of different instructional approaches. For people with PIMD, it is generally the case that explicit, deliberate, and often intensive instruction is required to develop and enhance their communication and social skills, levels of engagement, and more generally improve their overall level of adaptive behavior functioning. This chapter provides background on the characteristics associated with PIMD and the challenges that arise in providing effective instruction to people with PIMD. Following this background section is an overview of three instructional approaches that have been applied for the purposes of supporting the engagement and adaptive behavior functioning of individuals with PIMD. These instructional approaches are (a) Intensive Interaction, (b) Systematic Instruction, and (c) Assistive Technology. The consideration of assistive technology interventions focuses on the use of augmentative and alternative communication (AAC) devices, specifically speech-generating devices (SGDs) and related microswitch technology. The use of such technology is illustrated by presenting two case studies in which two adolescents with PIMD were supported through the application of systematic instruction and assistive (AAC/SGD) technology. This overview and the illustrative case studies suggest that the use of systematic instructional tactics to establish functional use of assistive technology appears to be a promising approach for enabling people with PIMD to develop effective communication and social skills and increase their engagement in a range of functional activities.

## **BACKGROUND**

The term PIMD describes a population that presents with severe to profound intellectual disability and significant physical impairment (Bellamy, Croot, Bush, Berry, & Smith, 2010; Maes, Lambrechts, Hostyn, & Petry, 2007). Such individuals also often have additional sensory impairments, such as limited sight and impaired hearing. They may also have serious health problems, such as having seizures and requiring tube feeding or ventilation.

The combination of intellectual and physical impairments can severely restrict the person's learning and the acquisition and performance of communication, self-care, daily living, academic, social, and recreation/leisure skills. The presence of additional sensory and/or medical problems can further complicate instructional efforts and, in turn, their overall level of functioning and quality of life (Gulati & Sondhi, 2018). An additional factor complicating educational efforts is the observation that many such individuals often appear to be passive and seemingly under-responsive to learning opportunities and environmental stimulation (Arthur, 2003; Arthur-Kelly, Foreman, Maes, Colyvas, & Lyons, 2018). Furthermore, persons with PIMD present with very little or no speech and language development. The lack of responsivity and limited speech and language are likely to severely limit their ability to interact with others and their engagement in meaningful social activity (Atkin & Lorch, 2014; Belva, Matson, Sipes, & Bamburg, 2012; Greathead et al., 2016; Lancioni et al., 2019; Schweigert, 2012).

Teaching people with PIMD can also often be further complicated because of problems involving a seeming lack of motivation and a general level of under-responsiveness (Sigafos, Roche, & Tait, 2021). Thus, a major issue for educators relates to effectively engaging students with PIMD and creating effective

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