Chapter 9
Assessment and Management of Communication Skills in Individuals with Intellectual Disability: Perspectives in the 21st Century

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ABSTRACT
The relationship between communication and cognition which has been explored since mid-1900s is a highly contentious topic. Hypotheses from various researchers have experienced a gradual shift from cognitive/innate bases to social perspective of acquisition and development of speech and language skills in individuals with intellectual disability. This acquisition tends to be delayed or deviant (qualitative and/or quantitative). In the recent years, research in this area is experiencing a paradigm shift evolving from ‘incapacity’ to ‘functioning’ which is obvious in the clinical practice of assessment and intervention of speech and language skills in these individuals. Further, the rehabilitation process is experiencing a transition from clinician directed to child-oriented or hybrid approaches of intervention. This chapter will be a comprehensive document of recent trends in research and practice related to acquisition of language, assessment and intervention of communication difficulties for professionals working with intellectual disability.

INTRODUCTION, BACKGROUND, AND MOTIVATION
Communication is an indispensable and integral part of daily living for any person. The ability (including the skills and deficits) to communicate is a complicated interactive phenomenon which is an outcome of coordinated actions between several entities such as anatomical, physiological, cognitive, linguistic and...
psychological components of the individual and the environment. The acquisition is further augmented with appropriate modelling and stimulation from the communication partners. This chapter will focus on the relationship between cognition and language; challenges in communication due to intellectual disability; and contemporary methods of assessment and management of communication difficulties in individuals with intellectual disability. The chapter does not intend to provide the readers with an exhaustive review of literature in this area, however, will to a great extent share the current intellectual climate prevailing in this part of world.

Research in the area of intellectual disability (Abbeduto, 2003) has been taking a three pronged evolution. The first one began with general shift in approach to focus on the subtypes of intellectual disability based on etiology than variation based on severity of intellectual disability. This allowed combining medical etiologies and behavioural description of intellectual disabilities. For instance, better language skills in individuals with William Syndrome against individuals with intellectual disability due to seizure disorders can be explained through this approach. The second focuses on the relationship between language and thought. Chomsky (1959), a nativist hypothesised language development to be driven by learning mechanisms that operate with minimal input from general faculties of mind. The third addressed predominantly on the manipulations of the environmental factors. These may be useful during assessment and intervention of communication skills in individuals with intellectual disability. Current trends in research focus predominantly on longitudinal observations and single case studies.

**Language and Cognition: The Relationship**

The relationship between the development of cognition and language has been debated in the literature. The cognitive theory of language development hypothesizes that language and cognition are linked developmentally in a ‘strong’ or in ‘weak’ form (Klein & Moses, 1999; Bohannon & Bonvillian, 2005). The ‘strong’ form hypothesis postulates that cognition is the major pre-requisite for language development while the ‘weak’ form, also known as ‘interactionist’ model warrants language and cognition as inter-linked and inter-dependent along with other social and linguistic variables (Kamhi & Johnston, 1982; Owens, 2005; Reed, 2005). This provides evidence in considering intellectual disability from a ‘delayed’ and ‘quantitative’ perspective in ‘strong’ form hypothesis, to the need for presence of certain linguistic capacities for language development in the ‘weak’ form hypothesis. Thus, language development depends not only on cognition, but also on socio-linguistic pre-requisites (Cromer, 1991). This is evident in early stages of sensorimotor development in children with intellectual disability where a delayed and not a deviant pattern of language acquisition is observed, especially in object permanence, first word stage, etc (Greenwald & Leonard, 1979; Kahn, 1984; Mahoney & Snow, 1983; Martin, McConkey, & Martin, 1984). An Indian study (Krupa, Perumal, & Kripa, 2009) conducted on language development (semantic intentions) in children below two years of age indicated a non-linear relationship between language and cognition in children with intellectual disability despite being matched for mental age. On a similar line, Finch-Williams, highlighted earlier in 1984 that language may not develop to the extent predicted by cognitive achievements, especially in individuals with severe and profound retardation. Evidences suggest that some cognitive skills continue to develop till early adulthood (Silverstein et al, 1982) and reaches a plateau at a specific age of an individual. The same is observed with language development as well.

In contrary to the postulates putforth by the proponents of the cognitive theory of language acquisition, Vygotsky (1962) suggested that language takes the lead role thereby facilitating the development