6. THE PHYSICAL ENVIRONMENT OF THE EARLY LEARNING CENTER

A Key to Quality Education

INTRODUCTION

Every year greater numbers of infants, toddlers, and young children enroll in early childhood education (ECE) programs around the world; in fact, the Organization for the Economic and Co-operative Development (OECD, 2017) estimates that among its member countries, nearly 85% of very young children attend ECE programs. ECE programs may be known by many different names, including preschool, early years’ programs, early learning centres, and day care. Most programs serve children ages two through five years, although some also provide educational services to infants and toddlers. Generally, these programs started in the mid-19th century with the primary intention of providing custodial care of children for working-class parents (Kamerman, 2006). Since then, ECE has evolved considerably and today’s child care programs are deemed vital to the current and future cognitive and social development of children. Countries that have ratified the United Nations Convention on the Rights of the Child, also support the notion that education is a right of all children, including the youngest.

It is hard to dispute the benefits of quality ECE for our youngest citizens. Both the direct and indirect advantages to society are also plentiful as ECE is touted as the panacea for poverty, illiteracy and lack of social mobility (OECD, 2013; OECD, 2017). The OECD’s report on the Program for International Student Assessment (PISA) scores highlights research suggesting that attendance in ECE programs yielded improved academic achievement much later, through age 15. However, the OECD cautions that these positive outcomes are strongest in those countries with “quality” programs (OECD, 2013, 2017). On an economic level, it is estimated that for each dollar invested in developing quality education program, the benefits are three-fold (Heckman, 2011), manifested in improved academic performance, health outcomes and skill readiness. Armed with sound evidence to support these positive results, nations around the globe have worked to implement practices and policies to improve ECE quality and access (Gorley, 2011). However, the key to realizing this prosperity appears to be strongly correlated with the “quality” of the program.

The question remains, though, how do we define the elements of a high-quality centre? Quality, as related to ECE programs, has not been consistently defined.
There is some consensus that the best programs enjoy highly-trained, professional teachers, low adult-student ratios, opportunities for parent involvement, consistent daily schedules of activities and a developmentally appropriate curriculum that is concentrated on the needs of the students (Bauchmuller, Gertz, & Rasmussen, 2014). Others have noted the need to consider the organizational climate of the school in discussions on quality (Dennis & O’Connor, 2013). Many cling to the perspective of the primacy of these social variables, and accordingly, research and policy tend to target the social and curricular aspects of a child’s educational experience. Undeniably, these elements are necessary for the creation of high-quality preschool education; however, the contribution of the physical setting to the quality of the educational experience, if not often acknowledged. For example, in the OECD’s 2006 Starting Strong publication devoted to improving early childhood education, none of the ten practice recommendations provided addressed the physical settings of schools (OECD, 2006).

The psychological, educational and social components of the learning environment are salient to the discussion on quality. However, failure to fully appreciate the impact of the built environment on learning is problematic, given the compelling body of evidence from the field of environmental psychology establishing the influence of physical and spatial settings where children learn with learning and developmental outcomes (Moore, 1986, 1996, 2007; Weinstein, 1987; Trancik & Evans, 1995; Maxwell, 2007; Lippman, 2010). Even before the research on these associations was well known, early educational pioneers recognized that the environment was a potent force, shaping the child’s educational experience and sense of himself as a learner. Among those was Italian physician and educator, Maria Montessori, who developed an educational method where the aesthetic, organization and function of the physical environment served as key facilitators of learning. These prepared environments provide the structure, materials and environmental cues to support engagement and discovery (Montessori, 2012). A similar perspective is evident in Reggio Emilia concept schools where the physical environment is dubbed “the third teacher” (Ceppi & Zini, 1998). Reggio Emilia classrooms are intentionally designed to be visually appealing to children. Materials are purposefully selected and beautifully displayed so as to inspire children, spark their curiosity, and draw them into the learning process (Ceppi & Zini, 1998). Specific constructed components, such as the presence of a central “piazza” facilitate collaboration and socialization among teachers, students and families (Lippman, 2010). The schools’ walls, materials, and learning spaces are all viewed as equally integral to creating engaging experiences, as social factors are (Ceppi & Zini, 1998).

Far from being merely an insignificant background, the physical environment influences those living and learning within its walls shaping all aspects of education in both positive and negative ways (Proshansky, Fabian, & Kamonoff, 1983). Poorly designed spaces, high levels of noise, and crowding have been decisively determined to disrupt children’s learning and social interactions as well as to contribute to their experience of stress (Maxwell, 1996; Legendre, 2003; Valente, Plevinsky, Franco,