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Achievement to Environmental Components of Educational Spaces for Iranian Trainable Children with Intellectual Disability

Mehdi Khakzand^{a*}, Koorosh Aghabozorgi^b

^a*Iran University of Sciences & Technology (IUST), School of Architecture and Environmental Design, Tehran, 1684613114, Iran*

^b*Qazvin Islamic Azad University, Qazvin, Iran*

Abstract

Intellectually disabled children differ from other children in terms of physical, rational and behavioural aspects. The present research is aimed at identifying and reviewing the factors that improve their relationship with the surrounding environment in educational areas. The research method of this study was a survey that contained both qualitative and quantitative sections. The qualitative section involved the practical participation of intellectually disabled children and was implemented by drawing pictures. The quantitative section involved the use of a questionnaire. The findings show that factors like colours and proportions have a tangible effect on educational spaces at the level of education.

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Keywords: Architectural design; environment; trainable intellectually-disabled children; educational environment

1. Introduction

The human is an organism that always tries to establish a relationship with his/her surrounding environment and to cause change and transformation in it, also to meeting his/her requirements. Hence, humans may be affected typically by the environmental conditions and on the other hand with respect to his/her needs, values and objectives, s/he changes the environment. As the environment forms and restricts the activities of users, it seems necessary to ensure appropriate planning to achieve the maximum efficiency and growth. But there is a certain group of humans,

* Corresponding author: Tel.: +98 21 77240467; fax: +98 21 77240468.

E-mail address: mkhakzand@iust.ac.ir.

known as intellectually disabled children. They differ tangibly from the other children of the same age in terms of intellectual, physical, behavioural and personality traits, they are considered to be Exceptional persons and constitute 13% of members of community in various countries.

These small humans suffer from several disabilities such learning, intellectual disability, emotional dysphoria, kinetic-physical disability and visual and audio impairments. It is important that they have special environments for education that not only can meet their special requirements, but also can be adapted to their emotional and mental characteristics and will provide the conditions in such a way that their interaction with the environment and surrounding world will occur more easily and therefore they will more easily be able to reach their maximum human potential.

The present study is intended to identify and examine the elements, which upgrade the quality of the educational environment for intellectually disabled children and prepare the needed platform for their appropriate relationship with individuals and the surrounding environment. Thus, one can improve their intellectual and social growth by the aid of deeper recognition of intellectually- disabled children in terms of psychological and personality aspects and by creating special environments for them whereby they can utilise their maximum capacity and potential. It seems some factors such as light, types of materials, sound, colour and proportion may have an effect on the quality of the educational environment and cause enhancement to educational levels.

2. Literature review

In this section, we deal with findings and research, which have been carried out by psychologists and theorists of Exceptional children and on the other hand by architects and setting-designers regarding the field of intellectually disabled children.

2.1. Psychology of children with intellectual disability

2.1.1. The role of educational games in conveying information to disabled children

During the 1960s, training games have drawn special attention by many educational leaders and most researchers who reviewed and analysed the use of educational games in the classroom declared that games act strongly in conveying the concepts in learning environments and the element of participatory learning should be embedded into an empirical game to produce a different learning environment that can include competition, curiosity and creativity (Burenheide, 2006). Game therapy and puppet shows may improve the process of adaptation to the group and community in intellectually and/or physically disabled children (Carmichael, 1993). Hence, this issue is considered as a determining factor for the design of learning environments for trainable intellectually disabled children.

2.1.2. Art and art therapy

The researchers have shown that art therapy is also employed in various forms such as painting therapy, drama therapy, puppet shows, cinema (movie) therapy, music therapy and rhythmic moves for treatment and control of aggression (Crimmens, 2006). Art-therapists assume the art process is very efficient in the contribution to the appropriate growth of intellectually disabled children communications and reducing their aggressive moods (Kaplan, 2007). In addition to increasing power of perception and recognition by the aid of painting in intellectually disabled children, this conceptual art can increase their learning in some skills such as reading, writing and arithmetic (Case & Dalley 2008). Painting is assumed to be one of the paramount means of expression of intentions, thoughts, ideas and internal requirements of humans. One can discover appropriate information about personality traits, mental capabilities, emotional characteristics, failures, stresses and internal desires in paintings drawn by children. Similarly, this method was used to discover environmental concerns and requirements of intellectually disabled children in this article.

Majorek et al. (2004) examined the effect of exercise along with music on five children with Attention Deficit/Hyperactivity Disorder (ADHD). The results of this investigation showed that the exercise along with music might have a positive effect on problems of social behaviour and work speed in these children. Moreover, in healthcare environments, Bishop (2012) claimed that art plays a key role in a paediatric healthcare environment from a child and youth perspective.

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