Chapter 69
Criteria of Development of Adaptive Didactic Games for People with Intellectual Disability

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ABSTRACT

Children with intellectual disability have a diminished ability of social intelligence; thus, it is necessary to develop abilities in the area "use of the community" in order to suitably use these resources. An educative alternative is the use of didactic games in order to instruct disabled people. The approach used in this chapter is to propose criteria to developing games for people with intellectual disability. The authors use prototypes of games like for example to describe the proposed criteria applied in the areas of development and the situations of learning towards which the game focuses, in order to obtain the learning, as it is the intention of the game. The result that is expected is to enable these players so that they are self-sufficient to obtain inclusion of these vulnerable groups to the social surroundings. Concluding the chapter is a proposal for the development of a formal game by a company that could commercialize it and make it available for the targeted community.

INTRODUCTION

"All the children have the right to play, to gain access to suitable information, to have fun and to the nondiscrimination." These are some of the rights that the UNO (United Nations Organization) establishes for all and each one of the children of the world. Nevertheless if equality in the creation of games for the children does not exist for the mentally ill, Will it be discrimination? What happens if the didactic methods are not diffused or implemented that approach the electronic intelligence for this sector of the population?

These problems seem distant to the majority of the population. It`s truth which games for special education exists, also exist didactic methodologies

to approach these people to the technologies of information. The problem is that they are not within reach of all. Only some can accede to them. This investigation proposes to create games to favor the learning of the mentally retarded.

Many years ago back when electronic games were considered detrimental for the children, because some were used to show violent contents, in the present time this situation has changed, the contents of the videogames for console, PC and Web now allow players to understand and to solve complex social problems, historical facts, economic processes, etc. players use the data in order to help them to improve their academic performance. At this moment the educational personnel accepts them like a mean to improve the capacity of the abstract thought.

The use of New Technologies in the field of education has played an important paper in the developed countries, not thus in other countries. The use of electronic games using of different platforms, consoles, mobile devices, PC etc. has been implemented like an educative alternative. From the infantile perspective this didactic technique is a game and is accepted like funny and not like something that "forced to learn", in addition this technique allows distraction, relaxation and joy. A game can be an instrument of study to relate it to the elements contained in the game; in addition it stimulates the senses of unconscious form, acting in attitude in order to modify a positive behavior towards learning.

In special education the use of didactic games is an alternative to develop delayed areas. The children with intellectual disability have diminished adaptive abilities, one of the most important is the ability of social intelligence, thus is necessary to develop knowledge that`s used in the community with the purpose of doing suitable use of the resources that the society offers such as transports, attendance in recreational areas and public places, shopping centers, school, etc. The problem is that in public routes these people

hardly can govern themselves, learn to move from a place to another in a City is very difficult for them. They also find difficult to understand text messages or to interpret pictograms.

Our objective is to propose criteria to develop adaptive didactic games for mentally retarded persons, who will help them in the improvement of the performance of daily activities.

This investigation implements two game prototypes as an example of the criteria that set out to take into account at the moment for creating this type of games. What is sought is to impel to the creation of games for this population with the necessary elements for the simulation of real surroundings where the mentally retarded player makes a route in simulated environment, manipulating a character in different scenes. The example has the objective of the apprehension of knowledge of the player when walking by the streets obeying the rules and signals of the pedestrian traffic, responding to stimuli caused by the multimedia ambient.

The expected outcome with the game is that the player takes to the practice the knowledge offered by the game in public places, as well as learns to identify signals and apply them in his daily life. Another objective is that the player can be able to form mental maps of the community in order to move from one place to another, selecting and identifying objects in a commercial market, recognizing transportation and their routes to allow him to be transferred without aid, to learn the coexistence and respect with the people in their school, to acquire capacities to develop recreational activities, good housekeeping, clean and order objects, maintain clothes ordered and clean, to know how to choose it according to the changes of the weather and station, to prevent accidents in the home being able to identify dangerously areas and objects, knowledge for going shopping and how to administer money correctly. In brief, to help them to be independent by means of the development of adaptive abilities.

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