

# IMPLEMENTATION OF THE FIFTH DIMENSION MODEL IN THE SPECIAL SCHOOL IN URUGUAY

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## Abstract:

Presents some preliminary results of research on the implementation of the Fifth Dimension Model (5<sup>th</sup> D) in the Special School in Uruguay, which intended to promote the appropriation of cultural tools and enhance the learning of children in the context of non-evaluative involvement. The study was based on Social Learning Theory and the contributions of Cultural Psychology. The research focuses on the importance of working on the social construction of ICT-mediated learning environments to identify areas (or zones of proximal development) opening to transcend the deficit. The research led to the hypothesis that 5<sup>th</sup> D in the context of Special Education promotes new forms of communication and expression to these children, allowing them to learn collaboratively. The methodology is qualitative action research. The research provides important elements for intervention in the educational practices of teachers and for strengthening research on ICT-supported collaborative learning for disabled populations.

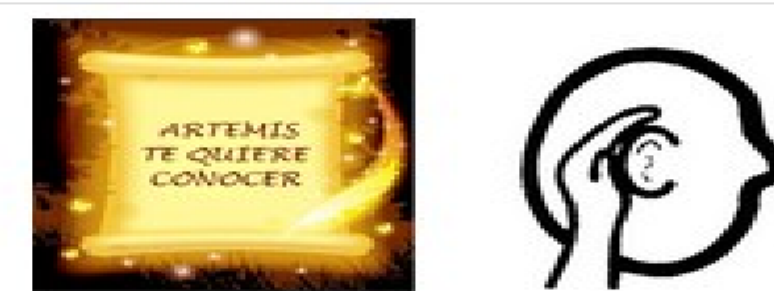
Keywords: Fifth Dimension; Disability; Special Education. disabled populations.

## Objectives:

Study the impact of the 5<sup>th</sup> D model in the teaching and learning processes of children with motor disability in Special Education in Uruguay

Describe and analyze the characteristics of the interaction among different agents in the development of the activity, and the processes by which the interaction intervenes in the development of significant learning in children.

## Methodology:



### Data Analysis

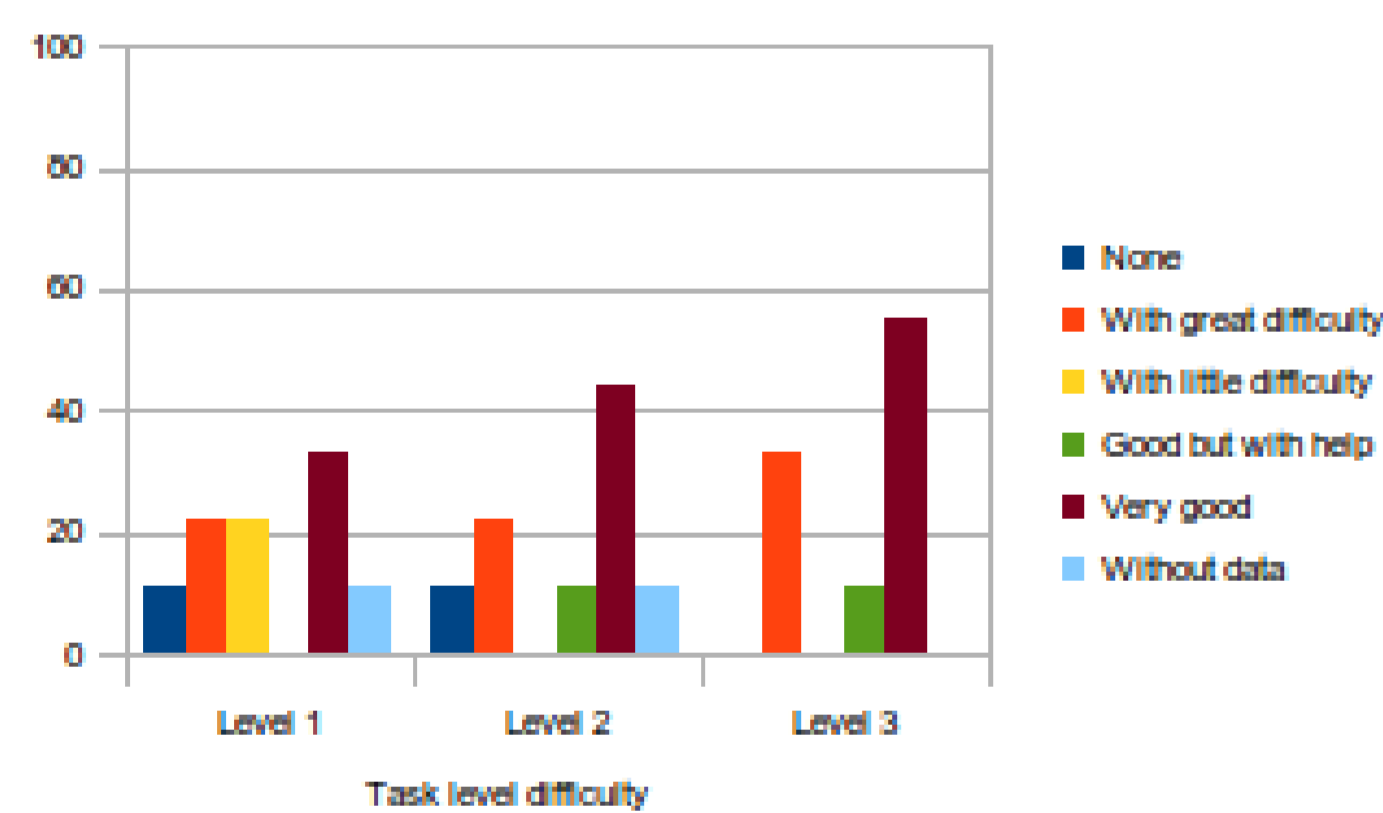
The analysis was conducted as the information was collected. After each work session university students would make an assessment of the activity according to the proposed indicators: *Interaction quality*; *Collaboration quality*; *Use of reading and writing or augmentative and alternative communication devices (AACD)*. These indicators are presented in a grid with a scale consisting of the following values: None, with much difficulty, with little difficulty, Good (with help), Very Good.

The methodological strategy selected was qualitative, or more precisely, action-research. Action-research in educative area has an extended tradition in the world (Lewin, 1946; Fals Borda, 1999).

### Participants

A total of ten children participated whose age range was between 9 and 11 years. Half of them had a diagnosis of cerebral paralysis with significant effect on movement control of their upper limbs; three had split spine, arthrogyrosis; and the remaining one had a syndrome that generate malformations. Most of them had difficulties associated with attention, perception and communication. Three had no spoken language, and seven had not acquired reading and writing skills.

## Results:

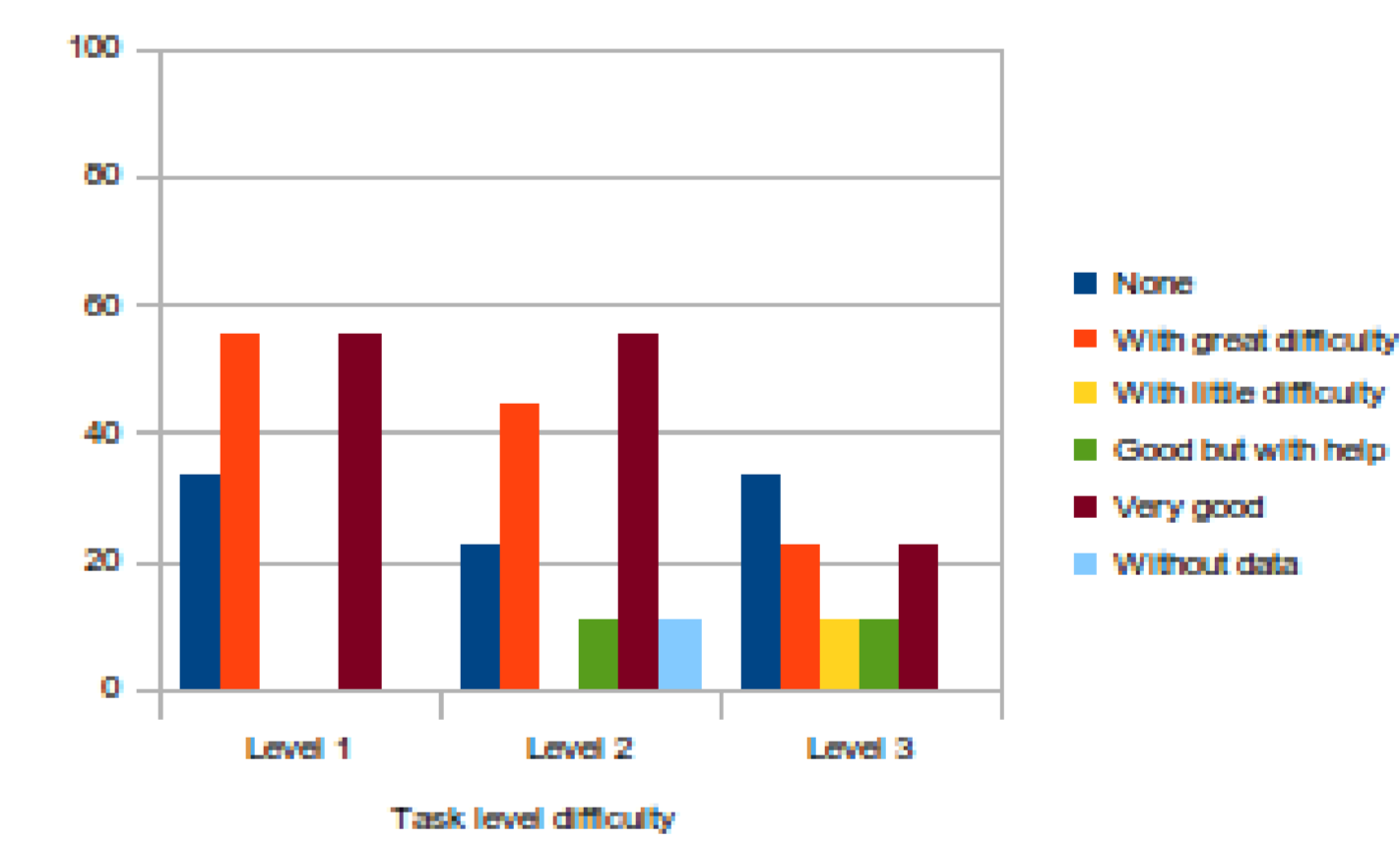
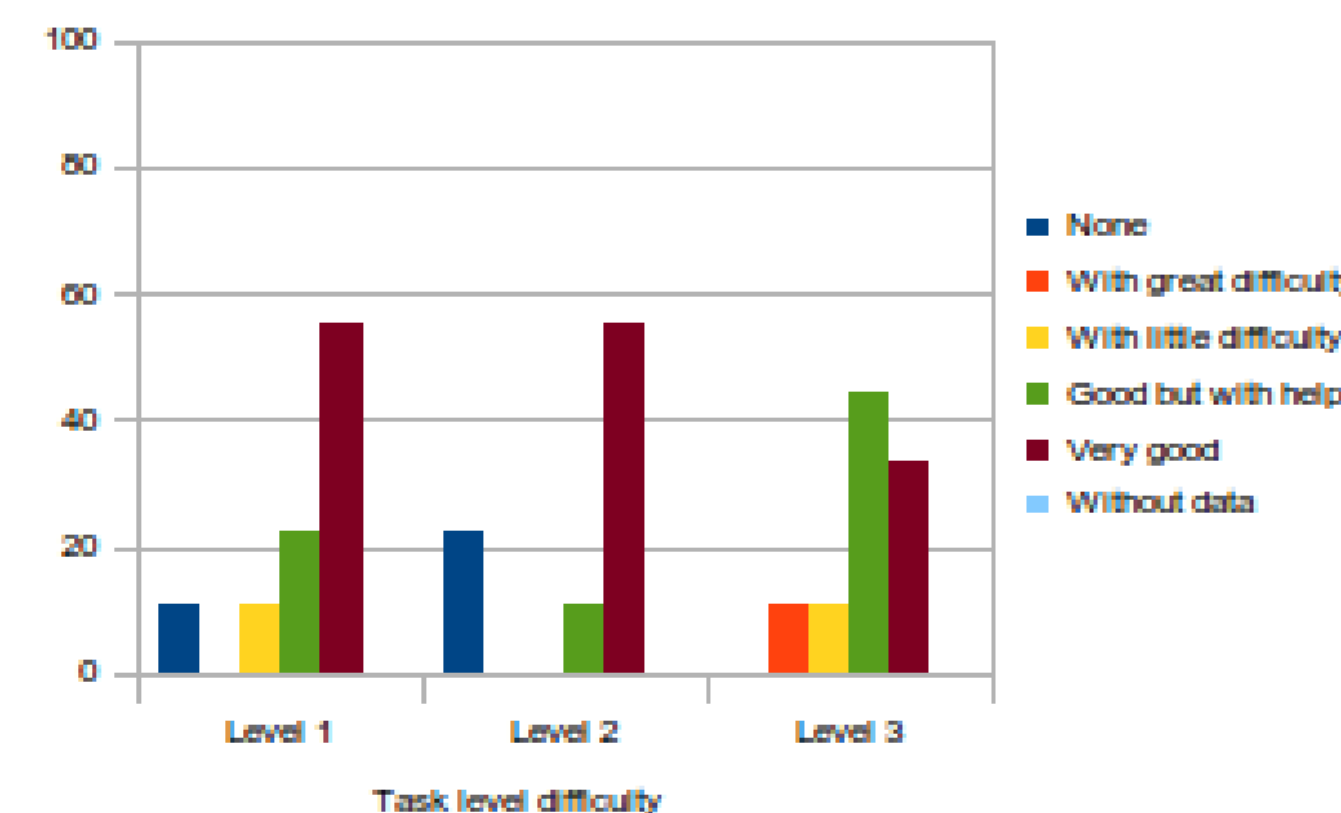


AACD

**Graph. 1** shows that the interaction increases according to the difficulty of the task. As for the quality of the interaction, the predominance of two extremes stands out, "with great difficulty" and "very good". This could be explained by the characteristics of the children and the tasks. In those children who did not have acquired reading and writing skills, the tasks were generally more difficult. At level 1 and 2 they did not need to use writing, but they had to into play abilities to build a narrative in pictures.

**Graph. 2** represents the values assigned to this indicator in the evaluations made by students. Regarding the quality of the collaboration, at level 1 and 2 of the task predominated a perception of the collaboration as "very good", while at level 3 was detailed as "good".

**Graph. 3** shows the evaluation made by the students of this indicator. Regarding the use of reading, writing and augmentative and alternative communication devices, it was represented the "None" value at all three levels of the task. The lack of proficiency in writing by the majority of the population explains the variability regarding its use at level 3, because in this task they have to do a narrative composition. Moreover, these results influenced the gradual introduction of pictograms as writing system for solving tasks.



3

## Conclusions:

The implementation of the 5<sup>th</sup> D Model through the Maze "The magic worlds of Artemis" in this school collaborated in the development of actions designed to address the situation of social inclusion of this population through construction of activities focused on the interests of the children and resolution of which relied on the collaboration with others. The introduction of different mediators (instrumental and social) in the activity was aimed at promoting a positive affirmation of the identity of the children in which they, with the necessary support, explored different strategies to solve the challenges present in every level of the activity. In this regard, the exchange of letters of children with the magical character and the development of activities in collaboration with collage students and with their pairs enabled the construction of a narrative about themselves and their school.

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