



Erasmus+

Cognitive enhancement through psychomotor activity on a giant chessboard

CASTLE project – Erasmus plus

First few results on two years of experimentation 2014-2016

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RESEARCH DESIGN – TURIN UNIVERSITY

TARGET OF THE RESEARCH:

Check whether the psychomotor activities on giant chessboard can improve psychomotor skills, in 5/7 years old children.

POPULATION: around 700 children in spanish and Italian schools. **SAMPLE:** Not probabilistic elements representative. First and second grade classes of primary school.

SURVEY PLAN: experimental plan in two groups, with the identification of **experimental groups** (15/20 hours of activity per year) and **control groups** (normal curriculum).

SURVEY INSTRUMENTS: Observation grids compiled by external educators (in Italy by Turin University) and the teacher of the class.

Have been filled in about 2.800 grids

COMPILATION OF THE OBSERVATION GRIDS

Bivariate analysis of observation grids, through statistical analysis of the **differences before-after**.

About some child's abilities, the observers could report:

1 - Absent (skills not present);

2 - Base (skills present if the child is guided);

3 - Intermediate (skills shown with autonomic response by the child);

4 - Advanced (skills shown with autonomic response by the child and manifested with particular mastery).

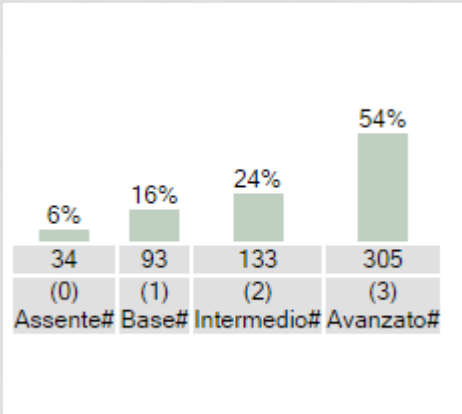
The first five questions allow to detect the **personal details** of the child: age, gender, school etc.

Fields from question 6 to question 14 were **filled in observing a specific path carried out in the gym**.

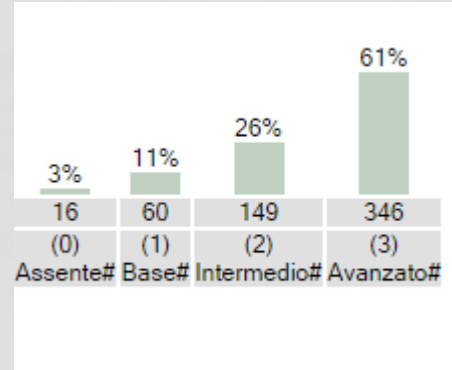
The questions from 15 to 25 were compiled by the class teacher: data focused on **skills and abilities that a child shows in the classroom**.

KNOWS HOW TO ORIENT HIMSELF IN SPACE

- Pre



- Post



FIRST FEW RESULTS

In summary: improvements on the advanced level (4= maximum control) are present on all the items of the observation grids, in both groups.

- Knows how to orient himself in space
- Moves in a coordinated way
- Uses body language to express himself and communicate his/her personal moods, emotions and feelings
- Moves correctly after deliveries similar to chess (ex: vertical, diagonal)
- Knows how to count objects or events, with the voice and mind, in the sense forward and backward and jumps of two, three
- Knows how to properly use the terms in / out to indicate an object in a certain position
- Provides correct information to another person to run a simple path
- Is able to tell a personal or fantastic story respecting the chronological or logical order
- Respects for his/her turn to speak
- Raises pertinent questions about what happens or will happen

ANALYTICAL WORK IN PROGRESS: KNOWS HOW TO ORIENT THEMSELVES IN SPACE

Processing (so far) of 71 cases **Control
Classes**

The difference test

Improves 21%

Processing (so far) of 61 cases
Experimental classes (*10 absences*)

The difference test

Improves 39,4%

**ANALYTICAL WORK IN PROGRESS: USE BODY AND MOTOR LANGUAGE
TO EXPRESS THEMSELVES AND COMMUNICATE THEIR MOODS, EMOTIONS AND
FEELINGS**

Processing (so far) of 71 cases **Control
Classes**

The difference test

Improves 26%

Processing (so far) of 61 cases
Experimental classes (*10 absences*)

The difference test

Improves 36%

The final report of the research will be ready by the end of this year

You can see many videos on this activity here:
eys.fide.com

Any questions on the research?

You can ask at
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**THANK
YOU!**