

# Paving the way for successful Montessori schools in the public sector: Tools for guiding teachers who are introducing the Montessori Method.

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## INTRODUCTION

About three years ago, I had the chance to participate in the process initiated by the Local Educational Authority of the province of Trento. This project led, after a period of specific teacher education on Montessori's philosophy, the sponsoring of experimental project designed to spread her thought and practice. In this way, during the school years 2016-17 and 2017-18, three primary school classes based on Montessori's Method were introduced in two comprehensive schools (Trento 6 and Rovereto Est).

## RESEARCH QUESTIONS

The research presented aims at monitoring the experimental project, in order to help the teachers progressively develop their practice in line with Montessori's indications.

The main question I am trying to answer to is:

To what extent is the teacher action in line with Montessori's thought?

The two related questions are:

What is the level of perceived self-efficacy on the part of the teacher?

What is the level of wellbeing in schools for children and parents?

## METHODS

In the first stage of the research, qualitative instruments (such as discussions with teachers and classroom observations) have been used, initially to define methodological principles with the teachers and school heads/executives/managers and subsequently to produce a checklist to gather data about specific teacher and child behaviours.

The checklist is designed for observing teacher and child behaviour using the Likert scale, recording presence or absence or the number of instances:

### 1. Learning environment

L1	The environment is clean	1	2	3	4	5
L2	The environment is tidy	1	2	3	4	5
L3	The environment shows a clear organisation of	1	2	3	4	5
L4	The environment contains novel features	Yes	No			
L5	The environment contains pleasing objects	Yes	No			
L6	The environment contains plants	Yes	No			
L7	Animals are present in the environment	Yes	No			
L8	The environment is taken care of by the children	1	2	3	4	5

### 2. The children

C1	The children work in pairs or in small groups	1	2	3	4	5
C2	The children work individually	1	2	3	4	5
C3	The children organize conferences	# Instances				
C4	The children put away their materials	1	2	3	4	5
C5	The children carry out different activities	1	2	3	4	5
C6	The children choose to work in places other than	1	2	3	4	5
C7	The children choose who to work with	1	2	3	4	5
C8	The children move around the classroom freely	1	2	3	4	5
C9	The children go to work in places outside the	1	2	3	4	5
C10	The children go outdoors	1	2	3	4	5
C11	The children wear slippers	1	2	3	4	5
C12	The children can freely drink water or tea	Yes	No			

### 3. Montessori materials

M1	The materials have a clear spatial collocation (by	1	2	3	4	5
M2	The materials are clean	1	2	3	4	5
M3	The materials are tidy	1	2	3	4	5
M4	The materials change during the school year	1	2	3	4	5
M5	The children's work is collected and stored (by	1	2	3	4	5
	the children or by the teacher)					

### 4. The teacher

T1	The teacher presents the materials separately	1	2	3	4	5
T2	The teacher presents the materials to small	1	2	3	4	5
T3	The teacher works at plenary level	1	2	3	4	5
T4	The teacher gives feedback to the children	1	2	3	4	5
T5	The teacher keeps a documentation of the	1	2	3	4	5
T6	The teacher moves around in the classroom	1	2	3	4	5
T7	The teacher organizes the groups that work	1	2	3	4	5
T8	The teacher is distracted by the children during	1	2	3	4	5
T9	The teacher communicates with colleagues or	1	2	3	4	5
	parents					

In the second stage, with the emphasis on the use of instruments for quantitative data gathering, two standard and validated questionnaire will be used: *Teacher Self-Efficacy Scale* (Tschannen-Moran & Woolfolk Hoy, 2001); italian version (Biasi & Domenici, 2013) and *Quality of Wellbeing at School* (Tobia & Marzocchi, 2015; italian version).

The first is designed to ascertain the level of perceived self-efficacy on the part of the teacher, while the second investigates the level of wellbeing in schools for children and parents.

## DATA GATHERING

Using this checklist, during the school years 2016-17 and 2017-18 I personally conducted nine observations in each of the school classes for about 70 minutes in the morning.

The collected data is related to 73 pupils, their parents (68% of them answered the questionnaires) and 7 teachers.

## LIMITATION OF THE STUDY

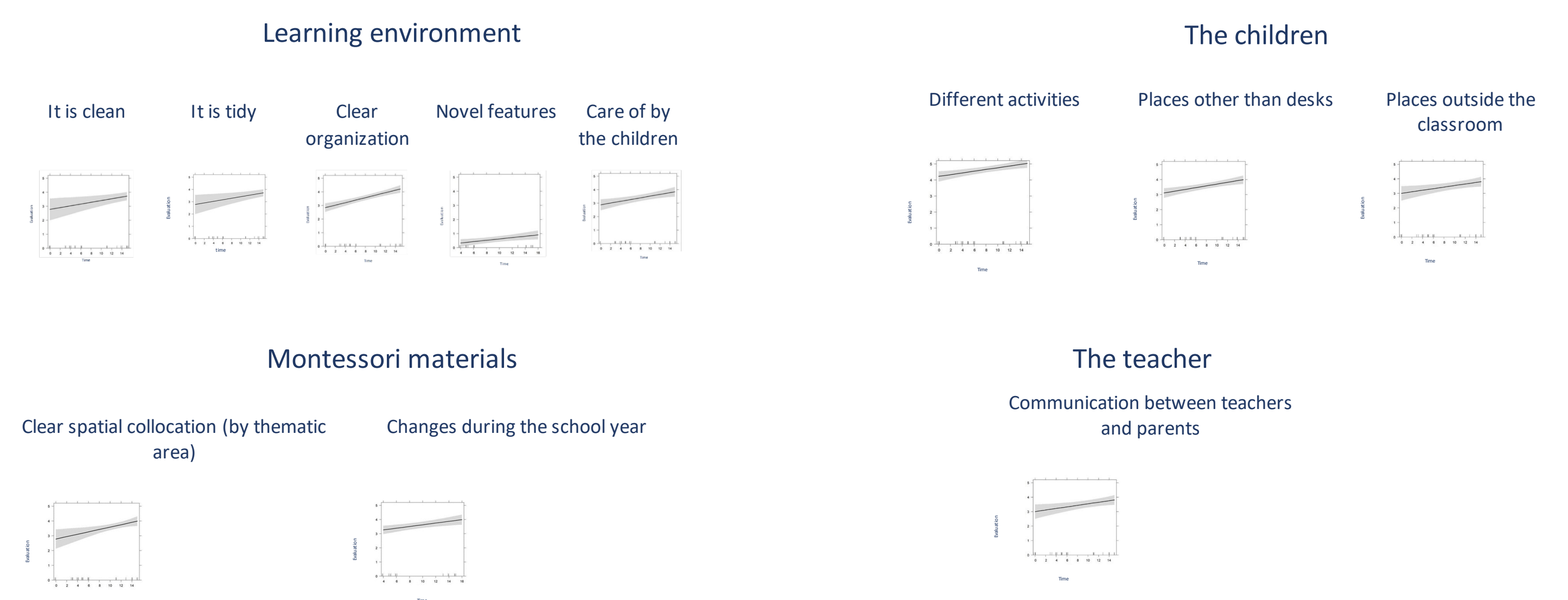
The checklist was based on personal observations of an expert, but still a study of validation of such tool does not exist.

The sample of teachers is really limited although, in order to obtain a relevant number, a multi-centers study would be needed. Generalizations would be constrained to the Italian context.

## ANALYSIS AND DISCUSSION

Analysis were made with the software R (R Core Team, 2016), function gls (generalized least squares) and anova, one for each group (children, parents, teachers), obtained through the "aov" function.

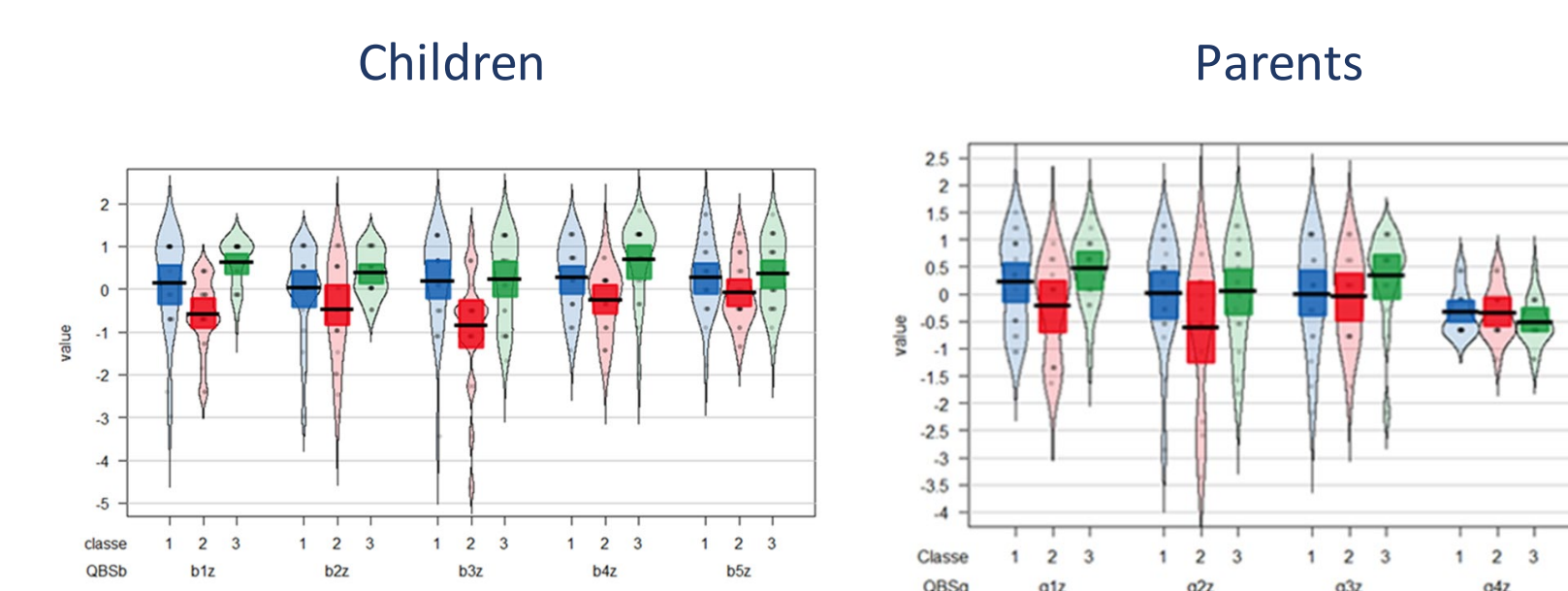
The mixed models run on the checklist showed a significant positive trend due to time on the items:



The results of the data analysis are based on the fact that, in order to implement an authentic Montessori approach, the teacher must necessarily undergo a transformational process. Thus, we noticed a gradual decline in the discrepancies between what is stated and classroom action.

The standardized questionnaires have showed a general good level of perceived self-efficacy on the part of the teachers and wellbeing on the part of the children and the parents. Especially considering the short time of the experimental process.

Wellbeing at school in children and parents:



## CONCLUSION

Some of Montessori's insights, especially those linked to a learning environment that is welcoming, accessible and familiar, together with the children's autonomous work without tests or marks, are seen as being particularly suitable for managing the complex heterogeneity of our schools and thus promoting wellbeing in teachers, children and parents.

The research presented aims at monitoring the experimental project, in order to help the teachers progressively develop their practice in line with Montessori's indications. The checklist should be considered as a self-reflection tool for guiding teachers who are introducing the Montessori Method in the public sector.

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