

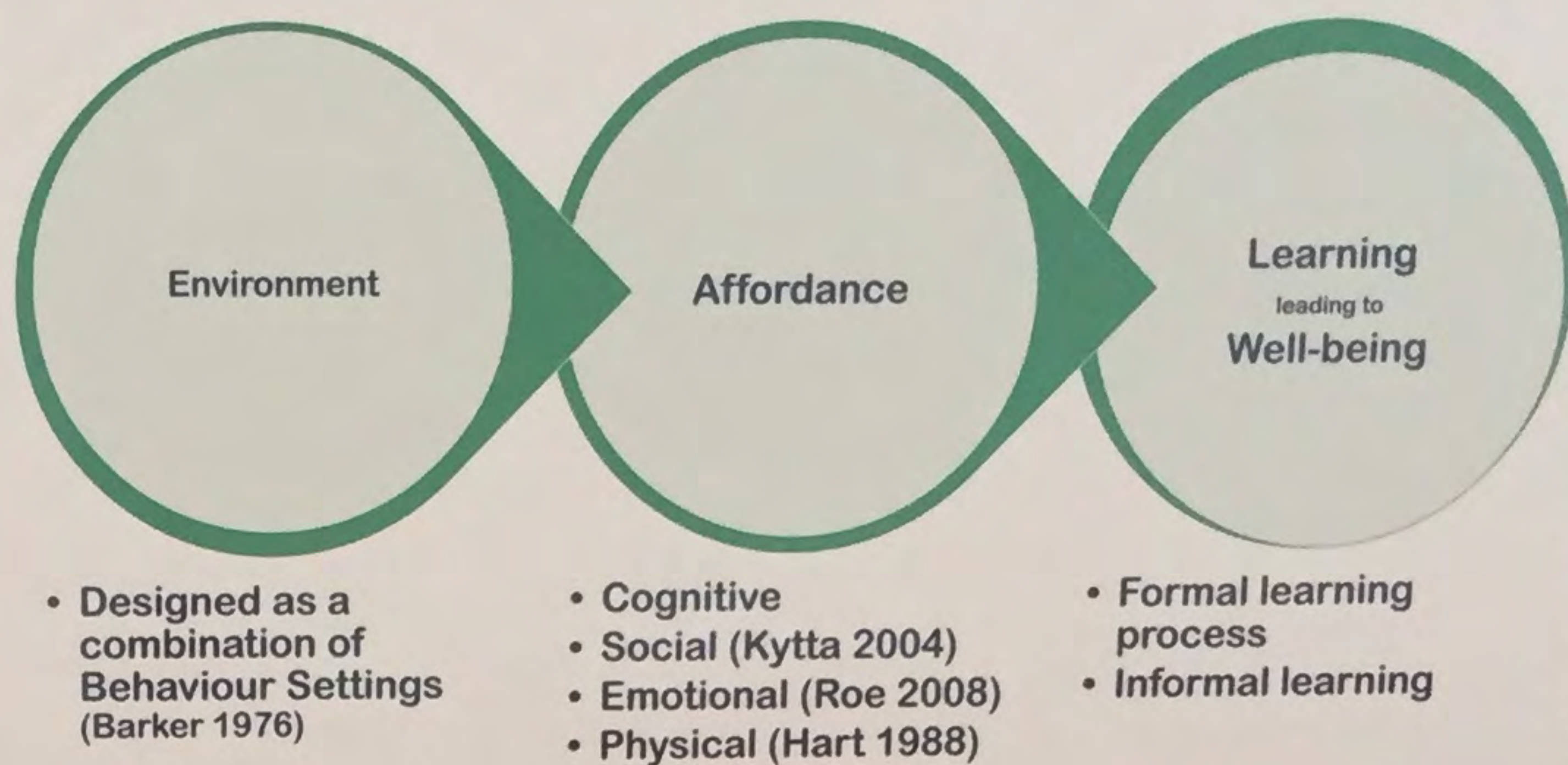
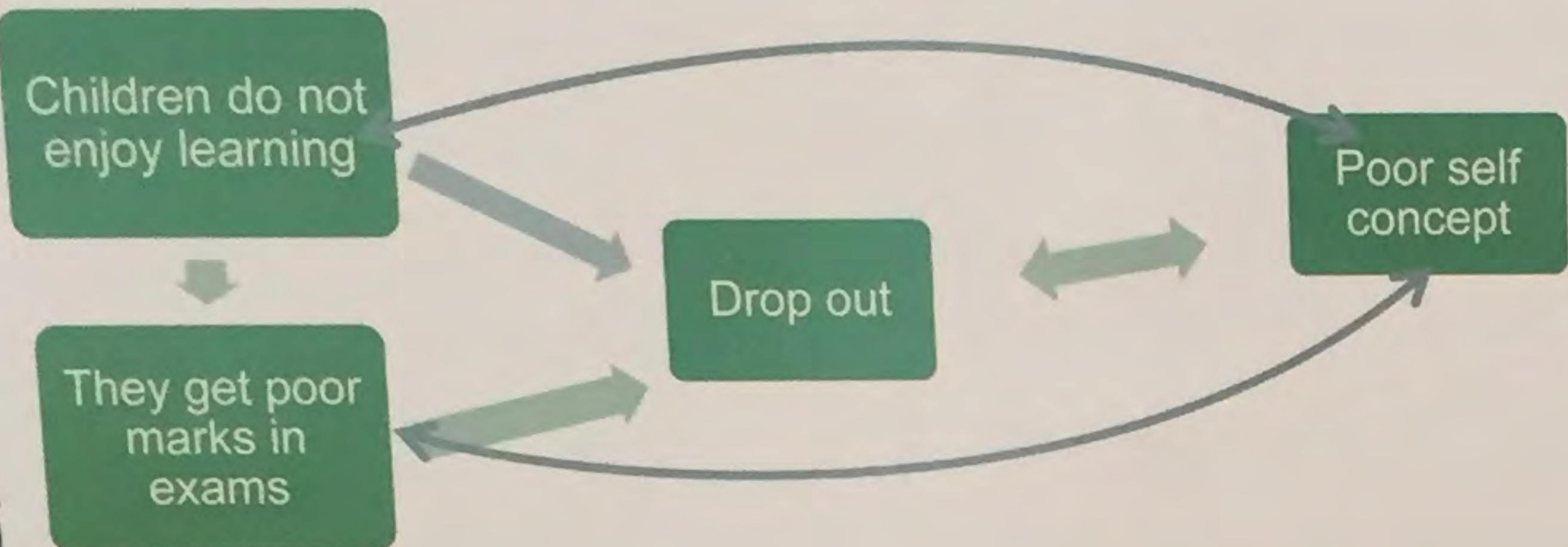
EXPLORING THE RELATIONSHIP BETWEEN NATURE AND CHILDREN'S WELL-BEING IN A REDESIGNED SCHOOLYARD

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My research investigated the relationship between an outdoor learning environment design and children's learning and well-being in a Government primary school in Bangladesh. The study included co-design and development of the schoolyard and evaluation of the design in terms of how it affected children's academic performance, informal learning activities and well-being. The study applied both qualitative and quantitative methods within its quasi-experimental research design and involved interacting with children at different levels during different phases of data collection. The analysis of the data implies positive impact of outdoor open spaces in primary school environment on children's well-being (their perceived motivation to learn, exploration and collaboration in the outdoor environment).

59 million primary children are out of school around the world (UNESCO 2015)
More than 21% of children leave primary school before completion in Bangladesh (BANBEIS 2015)
43% of the children in developing countries grow with poorer mental development (Daelmans et al., 2017)

BACKGROUND



CONCEPTUAL FRAMEWORK

- Designed as a combination of Behaviour Settings (Barker 1976)
- Cognitive
- Social (Kytta 2004)
- Emotional (Roe 2008)
- Physical (Hart 1988)
- Formal learning process
- Informal learning

Mixed Methods research design

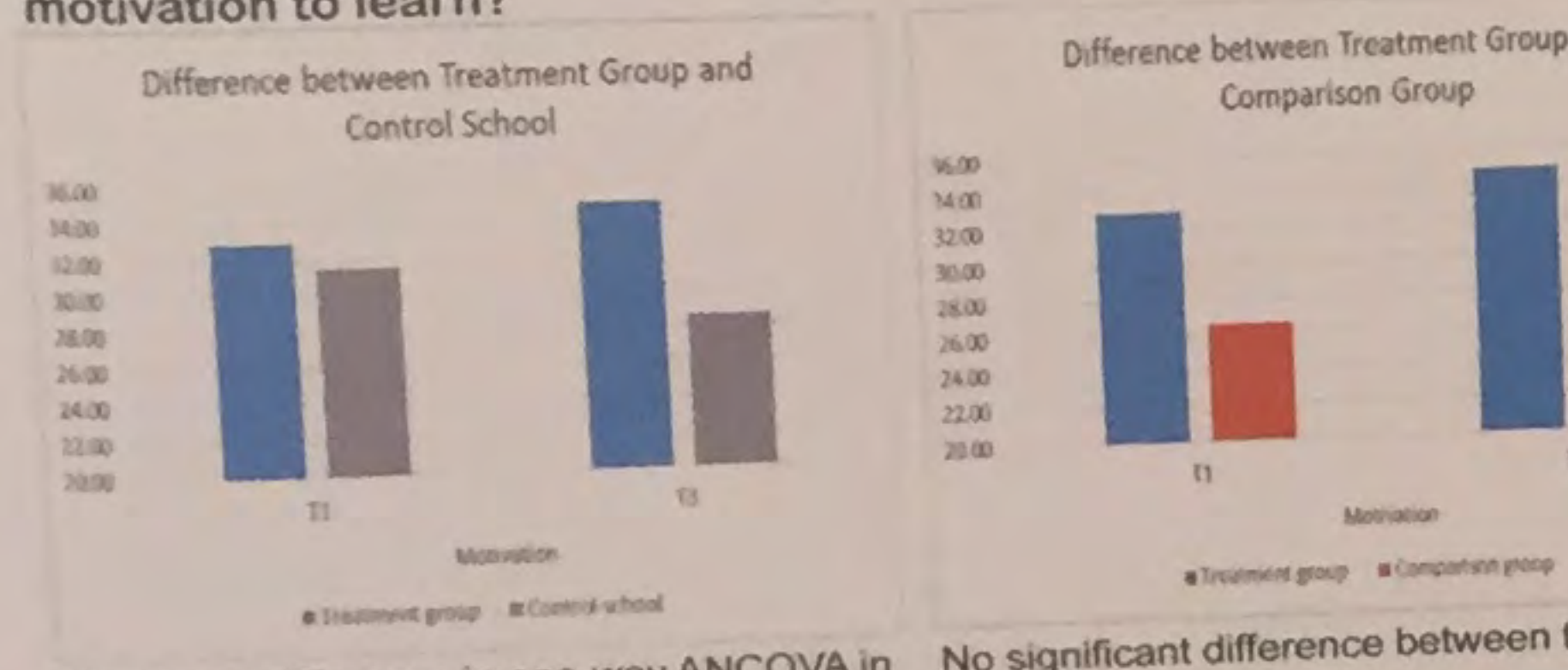
Exploration	Experimentation	Evaluation
<ul style="list-style-type: none"> Focus groups (with teachers) Focus groups (with parents) Focus groups (with children) Visual methods (Participant) Observation Behaviour mapping Questionnaire Survey Secondary Data Collection - Exam results Attendance rates 	<ul style="list-style-type: none"> Evidence-based design of school ground Implementation of design Intervention of outdoor learning 	<ul style="list-style-type: none"> In-depth Interview (with teachers) Focus groups (with teachers) Focus groups (with parents) Focus groups (with children) (Participant) Observation Behaviour mapping Questionnaire Survey Secondary Data Collection - Exam results Attendance rates



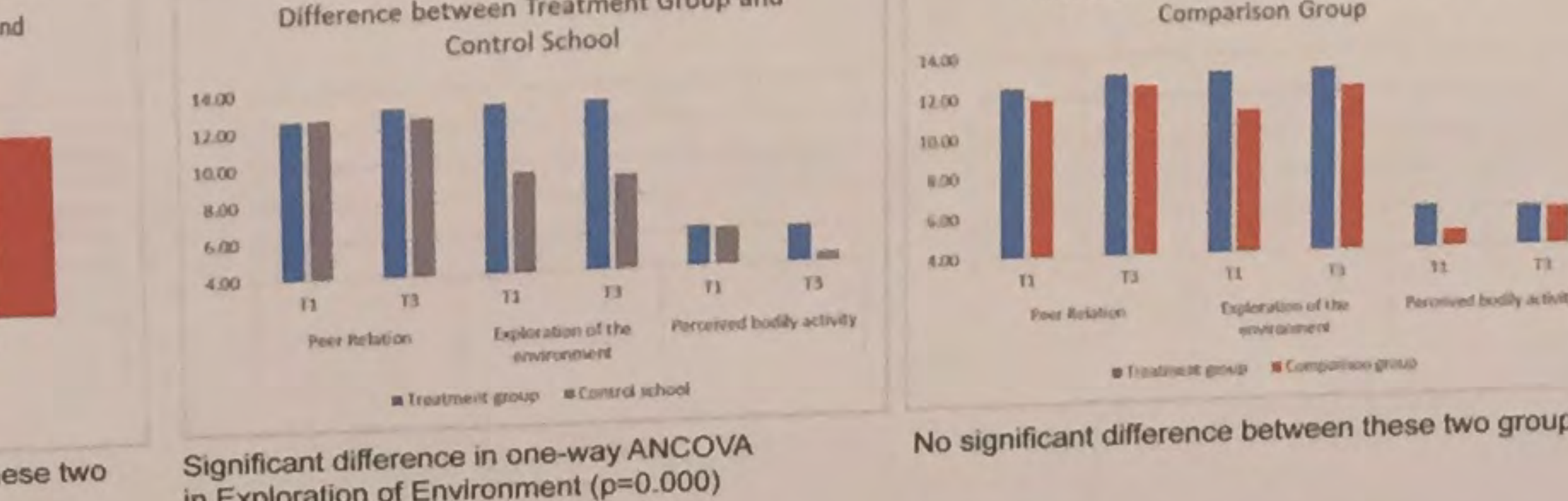
CASE STUDY: A TYPICAL GOVERNMENT PRIMARY SCHOOL



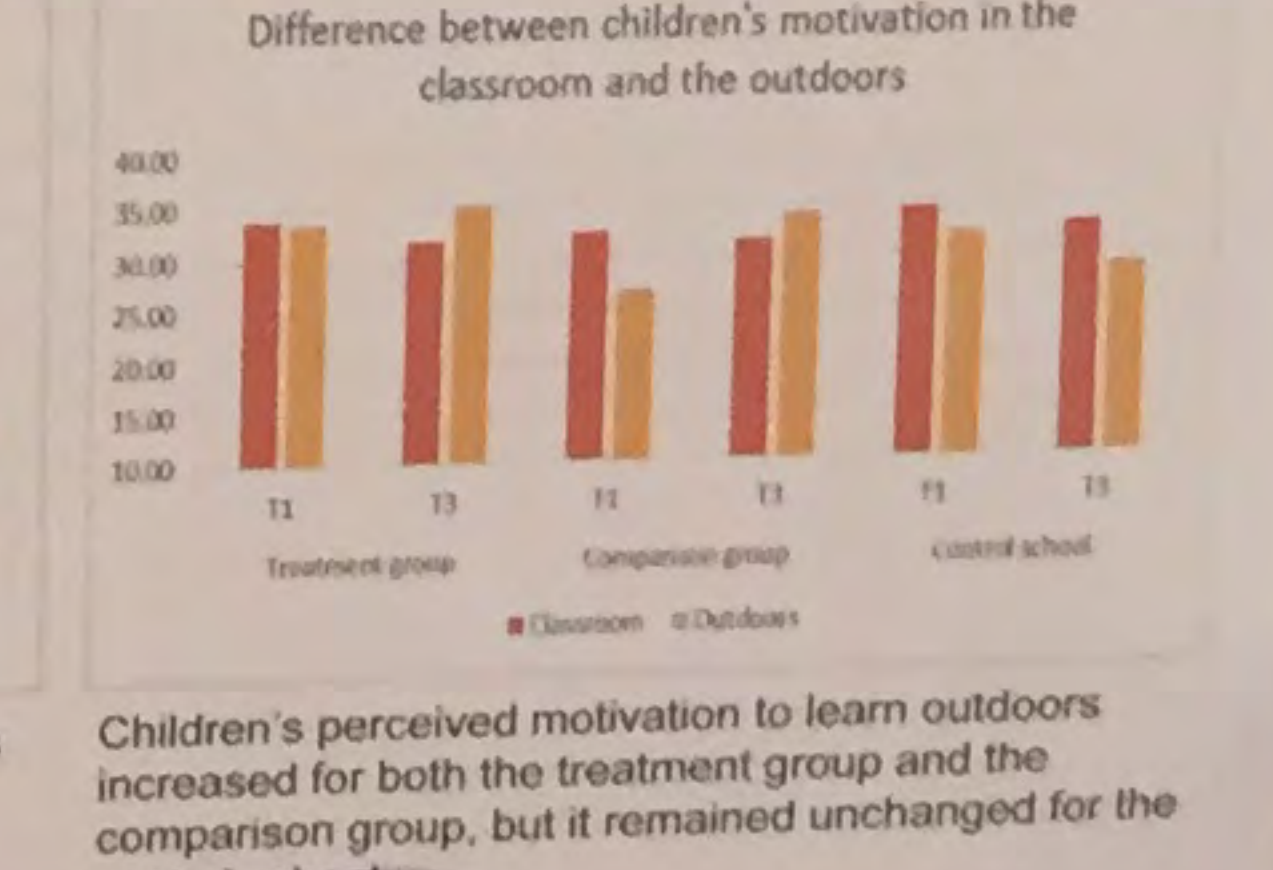
RQ 1: Can a designed outdoor environment increase children's motivation to learn?



RQ 2: Can a designed outdoor environment improve children's perceived peer relation, exploration of environment and perceived bodily activity?



SQ1: To what extent do different types of built environment influence children's motivation to learn outdoors?



FINDINGS

Of course their motivation has increased. Even it's evident in their attitude. I ask Roni (code name) to explain something and after doing that he asked if he could make me 'understood' he is so confident.

The whole class is a team now and they co-operate with each other. They don't have the tendency to fight with each other anymore.

The teachers get angry with us indoors as the students are naughty sometimes.

The teacher is more fun in the outdoor classroom. She smiles when we are able to do something.

There is not much to do in the classroom. What I can do with a table and a few benches! But in the outdoor class they can work on different things and then present it. Such a nice environment. I love the outdoor class. I get bored in the classroom.

Not a single child is shy. Those who are not shy can learn, they now possess the courage to ask questions.

