
Compito 2 Raffinamiento e Focus

Project: MicroMove
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Introduction

After reviewing the initial user needs, I conducted an additional contextual inquiry to observe real behaviours in context and deepen understanding of how engineering students manage (or fail to manage) active breaks during their study routine.

This goal is to focus the design problem more clearly and identify the 3-4 most relevant user needs for the future application

Descripciones del Dominio Raffinato

Domain:
student physical well-being inside the polimi campus

After the first interviews, three recurring issues emerged:

- Students lose perception of time while studying.
- They don't know which quick movement is appropriate in their study environment.
- They feel socially uncomfortable moving or stretching in public areas.

Refined Focus

“Helping engineering students integrate micro-activities during long study sessions without disrupting concentration or feeling embarrassed.”
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Nuova Attività di Needfinding (Formato)

Method used: Contextual Inquiry

Observation setup:

I silently observed students in their real study environments for one hour each.

Documenting:

- Break-taking patterns
- Visible discomfort
- Social behaviour
- Time perception
- Posture Changes



Utenti Coinvolti



Matteo (21)

Computer Engineering

Observed in the Central Library



Elena (22)

Industrial Engineering

Observed in Building 2



Ruben (23)

Telecommunications Engineering

Observed outdoors

Each represents a different study pattern and attitude toward movement.

Luogo dell'Osservazione



Polimi Central Library

Observation location



Building 2 Computer
Room

Observation location



Outdoor area near
Building 5

Observation location

These locations represent typical, high-usage study spaces for engineering students.

Cosa l'Attività ha permesso di Approfondire

Contextual Inquiry:

Revealed behaviours not evident in interviews:

- Students remain seated for long periods without real breaks.
- Early signs of discomfort are ignored.
- Social context influences willingness to move.
- Spontaneous breaks are rare.
- Students are unaware of sitting time

Deeper Insights:

Time blindness during study sessions.

- Social inhibition and fear of judgment.
- Anxiety about interrupting workflow and losing focus.

These factors explain why discomfort alone rarely triggers movement



Informazioni Raccolte

Key Observations:

- Breaks only occur when finishing a task.
- Neck rubbing and posture shifting are common but ignored.
- Phone-checking does not lead to physical movement.
- Stretching occurs only in low-visibility locations.
- Students do not track sitting time.

Conclusion:

These findings confirm that discomfort alone is insufficient to trigger movement.

Nuovi Aspetti Emersi

New insights emerging from the inquiry:

- Fear of social judgement discourages movement.
- Students need an external trigger to take breaks.
- Micro-breaks must be extremely short (<30 seconds).
- Breaks must not disrupt concentration.
- Time perception collapses during study.

These insights refined the user needs.

Bisogni degli Utenti (Lista Completa)

Expanded user needs include:

- Remember the right moment to take a break
- Identify early signs of discomfort
- Know what exercise fits the context
- Move without feeling judged
- Maintain concentration after a short break
- Visualise sitting time
- Move without leaving the desk
- Use equipment-free micro-breaks
- Choose socially acceptable movements
- Perform <30-second activities
- Receive energy-adapted suggestions
- Have alternatives for silent spaces
- Integrate movement into workflow
- Feel light motivation without pressure



Brainstorming sui Bisogni

A brainstorming session grouped needs under:

- Timing
- Social comfort
- Context-based suggestions
- Physical awareness

The most frequent needs across interviews and contextual inquiry were prioritised.



Bisogni selezionati

The four selected core needs



Remembering the right moment to take a break



Knowing what movement to perform in a specific context



Moving without feeling judged



Understanding how long one has been sitting

Personas e Scenari

**Giulia**

Computer Engineering

Scenario: Studies long hours in the library; neck pain; avoids standing to not disturb others.

Need: Discreet reminders.

**Ruben**

Telecommunications Engineering

Scenario: Wants to stretch but feels embarrassed in public.

Need: Socially acceptable micro-movements.

**Elena**

Industrial Engineering

Scenario: Prioritises finishing tasks over comfort.

Need: Micro-breaks that do not interrupt concentration.

Each person takes decisions of design to integrate micro activities without interrupting the study time

Brainstorming delle Soluzioni

Conceptual ideas included:

- Supporting students in recognising sedentary time
- Providing subtle, silent break cues
- Proposing discreet micro-movements
- Aligning breaks with task transitions
- Offering context-sensitive gestures
- Adapting suggestions to energy level
- Integrating breathing/posture resets
- Invisible movements for silent spaces



Soluzione Scelta

Chosen Concept:

A system that helps students become aware of prolonged sitting time and guides them toward short, context-based micro-breaks performed discreetly, without disrupting concentration or attracting attention.

It adapts suggestions to the study environment and to the student's comfort level, addressing the four selected needs and reflecting behaviours observed in the contextual inquiry.

Nome del Progetto

MicroMove

Chosen because it communicates the essence of the solution: small, quick movements that enhance well-being during study sessions.



Value Proposition

“Helping engineering students restore energy and reduce discomfort through discreet, well-timed micro-breaks during study sessions.”

MICROMOVE – POLITECNICO DI MILANO