

# PROJECT INTRODUCTION SUPPORTING MATERIALS: Transforming Students' Perceptions Towards Learning Chemistry

# PRISM

**REFLECTION**

LOOK AT ALL THIS CHEMISTRY THAT I DON'T UNDERSTAND!

**CHEMISTRY** Y U SO HARD...?

I still don't understand Chemistry

"...I have learned this before! But why can't I solve this problem?"

"...I thought I did everything correctly. But why my score is low?"

"...kenapa bah ni sir? Macam saya blur ni."

"...kan bagus kalau Chem macam Subjek X! Tiada questions belit-belit."

**20 WEEKS**

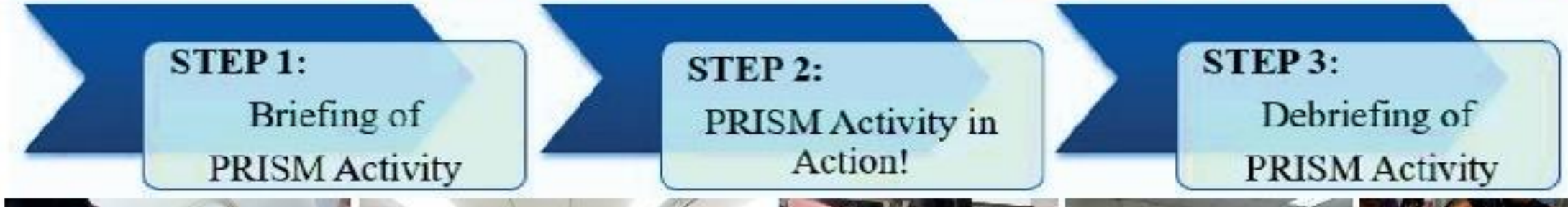
**module II**

**11** LOWEST INTEREST in Chemistry

**5-10** PRISM ACTIVITY MINUTES @ INTRODUCTION

**PRISM IMPLEMENTATION**

**3-STEP PROCESS OF PRISM ACTIVITY**



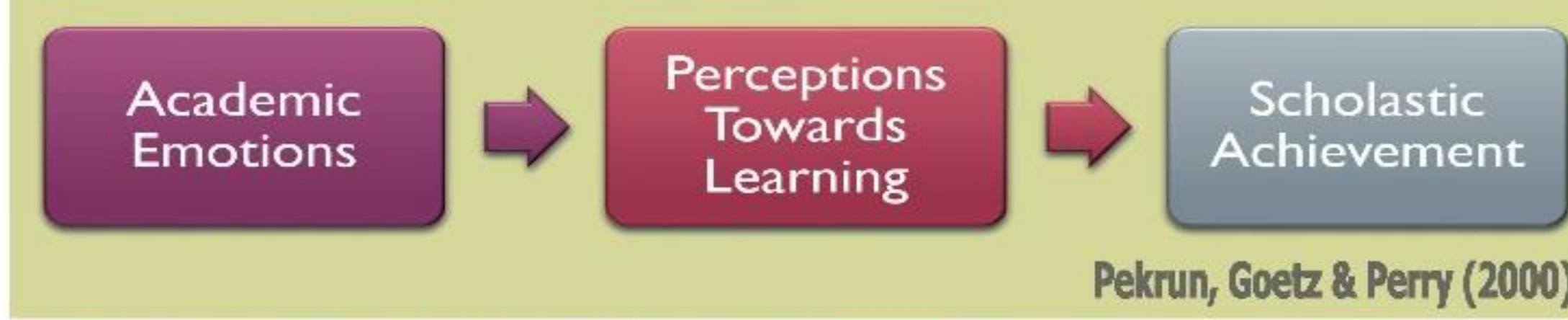
## CHEMISTRY! WHY YOU SO HARD?

Science Education in Malaysia is **DISCONNECTED** from the real world!

YBhg. Datin Dr. Ng Soo Boon  
Timbalan Pengarah Sains, Teknologi, Kejuruteraan & Matematik  
Bahagian Pembangunan Kurikulum  
Kementerian Pendidikan Malaysia

**3 LEVELS OF THOUGHTS IN CHEMISTRY** (Johnstone (2000))

- Macro & Tangible
- Sub Micro Atomic & Molecular
- Symbols & Mathematics

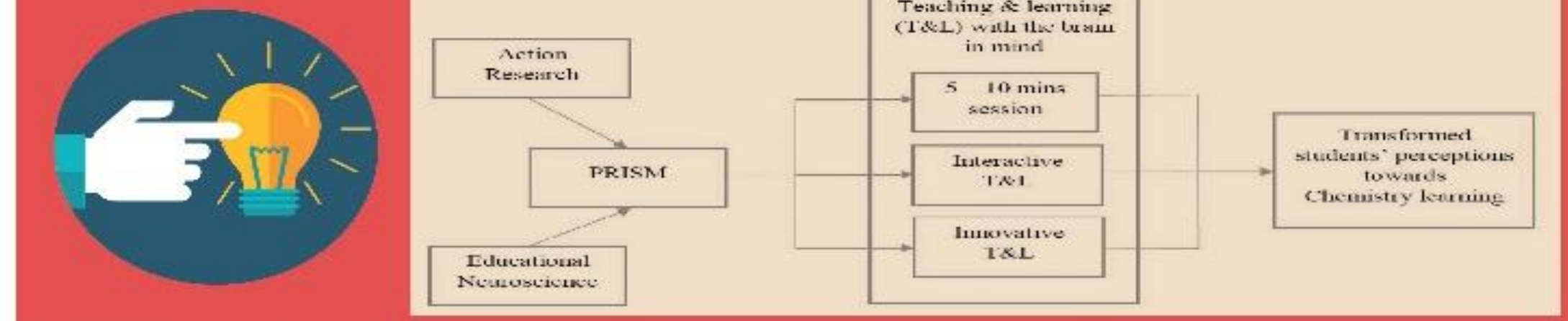


## OBJECTIVES

- To improve students' perceptions towards learning Chemistry.
- To provide vivacious learning experiences.
- To increase students participation in Chemistry learning processes.



## PARADIGM of CONCEPTUAL FRAMEWORK



**FUN LEARNING** induces **DOPAMINE**

Wise (2004); Wlodkowski (2011); Sousa (2011); Morita, Morishima, Sakai & Kawaguchi (2013)

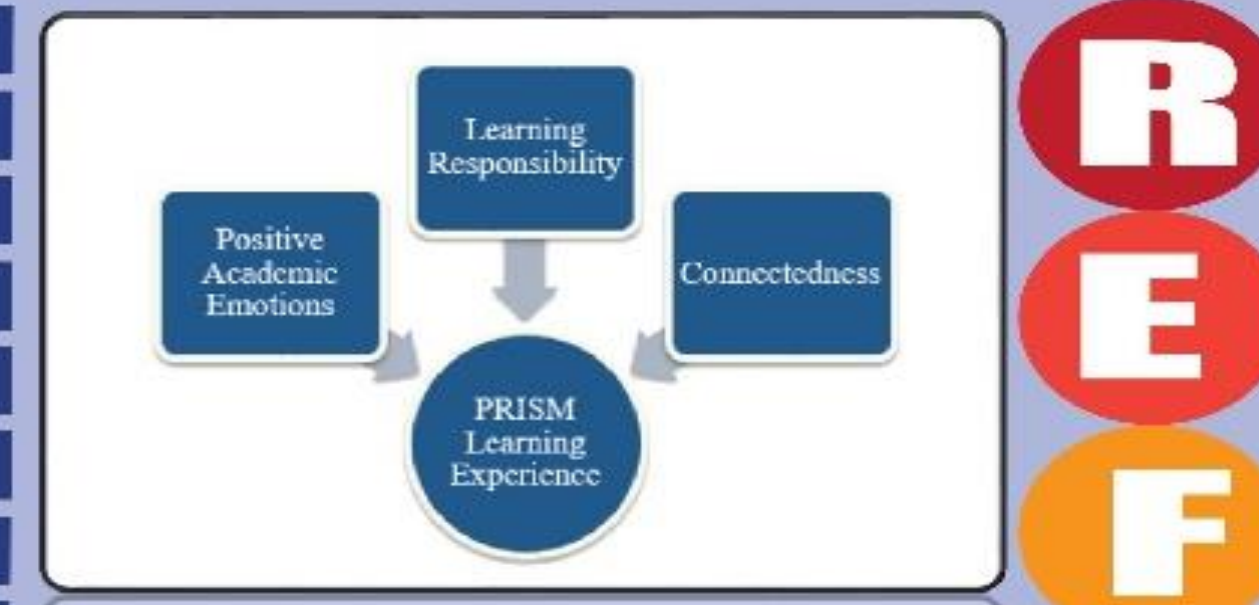
NCC1=CC=C(O)C(O)=C1

- Utilising the **Plan-Act-Observe-Reflect Cycle** as proposed by Kemmis & McTaggart (1988)  
"How Do I Improve My Practice To Improve Others?"
- Applying **Grounded Theory Analysis** as proposed by Dick (2003)

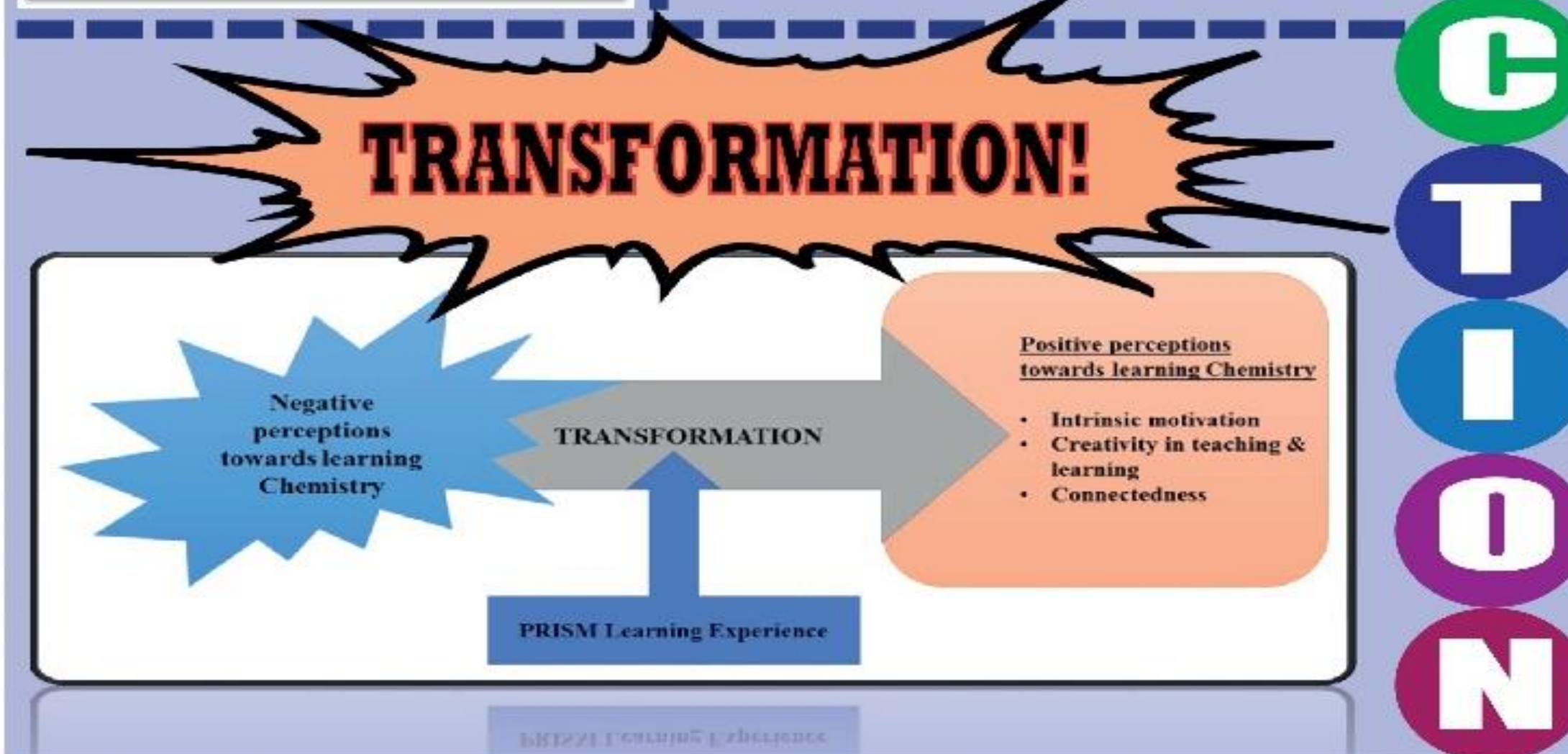
## PRIOR TO PRISM

Handwritten notes expressing negative perceptions:

- "I don't love chemistry with Chemistry"
- "Chemistry was just like any other subject."
- "confusing"
- "we will be quiet sleeps"
- "half-hearted"
- "it is no fun at all doing all sort of thing again and again."



## PRISM IN ACTION



**REFLECTION**