Failed Feedback

Task Goal

Goal: find a knife and clean it.

Historical Failed Trajectory

a_1 : go to countertop 1
o_1 : On the countertop 1, you see a creditcard 1.

a_2 : go to countertop 2
o_2 : On the countertop 2, you see a butterknife 1.

...

a_i : open drawer 3
o_i : You open the drawer 3. In it, you see a knife 1.

a_{i+1} : take knife 1 from drawer 3
o_{i+1} : You pick up the knife1 from the drawer 3.

a_{i+2} : think: Now I take a knife (1). Next, I need to clean it with some water in the pot.
o_{i+2} : OK.

a_{i+3} : take pot 1 from shelf 1.
o_{i+3} : Nothing happens.

Trial End

STATUS: FAIL (erroneous interaction)

Difficulty Measure

$$Reflection\ Intensity\ k_1, k_2 = M_{complex}(type, num_{obj}, num_{inter})$$

No / Replan

In-depth reflection (end k2 episodes)

Simple reflection (top k1 episodes)

Success?

Yes / Update

Lesson Pool

[clean]: I should go to the sinkbasin and use it to clean.

[put two]: The objects should be put into the same container.

[put]: Open the container before putting the object in it.

...

Valuable Experience Summary

Input

G	Task Goal
τ^t	Trajectory

Reflection Output

Exp^t	Valuable Experience

My plan was...
I have already achieved find a knife, which means **directly go to drawer 3 for knife 1**.

Failure Lesson Summary

Input

G	Task Goal
τ^t	Trajectory
LP^t	Lesson Pool

Reflection Output

$Lesson^t$	Failure Lesson

It's a clean task. **According to the lesson pool**, I should use the sinkbasin to clean, but not the pot with water in it.

Comprehensive Construction

Input

G	Task Goal
τ^t	Trajectory
Exp^t	Valuable Experience
$Lesson^t$	Failure Lesson

Reflection Output

$Plan^t$	Constructive Plan

Combine the valuable experience and the failure lesson, my total plan for the next trail is, go to drawer 3 for knife 1, then go to sinkbasin 1 to clean the knife 1.

Replan Trajectory

a_1 : go to drawer 3
o_1 : In drawer3, you see a knife 1.

a_2 : think: Now I find a knife (1). **Next, I will go to sinkbasin 1 to clean it**.
o_2 : OK.

...

a_k : clean knife 1 with sinkbasin 1
o_k : You clean the knife 1 using sinkbasin 1.

STATUS: OK