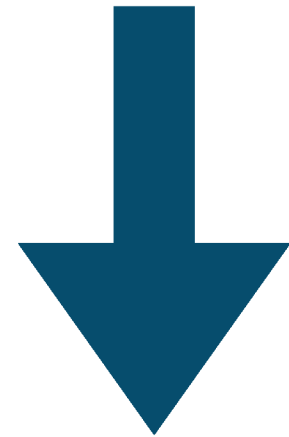


## (a) Traditional "One-size-fits-all" Approach

Traditional LMS / Instructor



Standardized  
Curriculum  
(Fixed Path)

Boredom /  
Disengaged



Advanced  
learner

Passive  
Mapping



Average  
learner

Frustration /  
Cognitive Overload



Struggling  
learner

## (b) Proposed AI-driven Adaptive Approach

Behavior logs  
State/vector ( $S_t$ )

AI RL Agent  
(Our Framework)

Qlearning



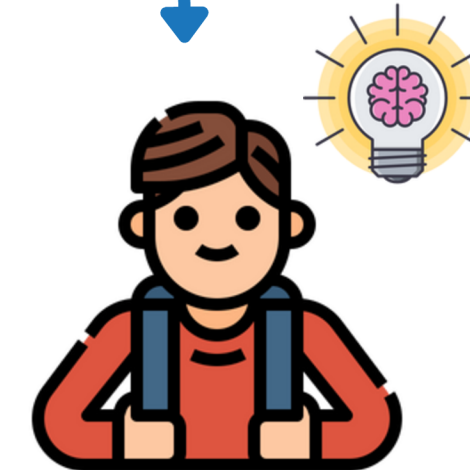
Challenging Path  
(Future Actions)

Challenging Path  
(Future Actions)



Advanced  
learner

Standard Path  
(Current Actions)



Average  
learner

Remedial Path  
(Past Actions)

Engaged /  
Mastery  
Achieved



Struggling  
learner