

Intrinsic Rewards:

A key idea for motivation and self-regulation

In educational contexts, the term "rewards" has traditionally carried negative connotations among both practitioners and researchers. This skepticism comes in part from the tendency to view rewards solely as extrinsic incentives, such as grades and prizes, and from associating rewards with traditional behavioralism. However, recent progress in the fields of mind, brain, and education research have indicated that we are endowed with a great capacity to internally generate rewards to motivate ourselves, which I shall call "intrinsic rewards." In this talk, I suggest that intrinsic rewards play a crucial role in driving our sustained engagement and selfregulated learning behaviors. I do so by introducing a theoretical framework called the "reward-learning framework of knowledge acquisition" (Murayama, 2022, Murayama et al., 2019), along with recent empirical studies, including work from our team.

According to this framework, learners can sustain their engagement and regulate their learning behavior because the learning progress itself works as an intrinsic reward, which increases the value for further learning (i.e., reward learning principle). Intrinsic rewards and reward-learning principle eventually create a positive feedback loop of learning and engagement, sustaining learning behavior over a long period. This framework has the potential to integrate different theories on motivation (i.e., interest, curiosity, intrinsic motivation, mastery goals, value, etc.) and self-regulation by leveraging the concept of intrinsic rewards and reward-learning principle. I further extend this idea by demonstrating how key educational factors, such as curiosity-stimulating environments, active learning experiences, social learning dynamics, and even extrinsic incentives, can be effectively explained and integrated within the proposed framework.



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