



ELSEVIER

Contents lists available at ScienceDirect

Journal of Experimental Child Psychology

journal homepage: www.elsevier.com/locate/jecp



Children's agenda-based regulation: The effects of prior performance and reward on elementary school children's study choices



Stacy Lipowski^{a,*}, Robert Ariel^b, Sarah K. Tauber^c, John Dunlosky^d

^a Department of Psychology, High Point University, High Point, NC 27268, USA

^b Department of Psychological Sciences, Purdue University, West Lafayette, IN 47907, USA

^c Department of Psychology, Texas Christian University, Fort Worth, TX 76129, USA

^d Department of Psychological Sciences, Kent State University, Kent, OH 44242, USA

ARTICLE INFO

Article history:

Received 23 June 2016

Revised 4 May 2017

Available online 3 August 2017

Keywords:

Metacognition

Self-regulated study

Development

Agenda-based regulation

Value-based remembering

ABSTRACT

The main goal of the current experiments was to examine the influence of monitoring and reward on elementary school children's study decisions. First and third graders studied names for 10 animals (e.g., "The elephant's name is Suzy") and then were given a cued recall test on which they were shown the animal and needed to recall the name. Next, they were given an opportunity to restudy the animal–name pairs, and some of these pairs were slated to earn a reward (a sticker) if correctly recalled. In Experiment 1, both groups of children were (a) more likely to restudy previously unrecalled pairs than previously recalled pairs and (b) more likely to restudy pairs that were slated to receive a reward. In Experiment 2, we further explored children's use of reward using a forced-choice selection task. Namely, during selection, pairs were presented in dyads where one pair was slated for a reward and the other pair was not, and the children could choose only one pair from each dyad for restudy. Both first and third graders chose to restudy pairs slated for a reward. Thus, even young elementary school children consider both rewards and performance monitoring when regulating their learning.

© 2017 Elsevier Inc. All rights reserved.

* Corresponding author.

E-mail address: slipowsk@highpoint.edu (S. Lipowski).

Introduction

Sandi is playing a memory game in her elementary class; she has a set of cards with animals (which includes different kinds of birds, snakes, spiders, etc.) on them, and she wants to learn their names. She is having fun flipping through the deck and trying to recall the name for each one. The teacher reminds the students that they will be discussing birds next and that they will get a small prize for remembering the birds' names. At this point, what will Sandi do? Will she focus her study efforts on all of the animals that she believes she is not remembering well, or will she focus just on the birds regardless of whether she had recalled them previously? To effectively guide their learning, children need to be able to monitor their performance and attend to important task dimensions such as the reward associated with learning the to-be-learned material. In the example above, Sandi may monitor what animal names she can already recall and decide to focus on those names she has not been able to recall, or she may decide to restudy only the bird names that she expects will return a reward.

According to the agenda-based regulation framework, sophisticated learners construct and execute simple agendas in an attempt to maximize their learning gains and outcomes (for details, see [Ariel, Dunlosky, & Bailey, 2009](#); [Dunlosky & Ariel, 2011](#)). One agenda that learners may construct would be to maximize final performance by focusing restudy on unlearned items that are expected to yield the highest reward. Foundational to this framework and others focusing on metacognitive self-regulation ([Nelson & Narens, 1990](#); [Winne & Hadwin, 1998](#)) are monitoring and control. For memory contexts in general, monitoring refers to evaluating how well items have been learned and control refers to decisions that are made to guide the processes involved in learning. In the current context, monitoring can occur when students are tested (because outcomes of the test provide an indicator of how well each item has been learned) and control pertains to whether students decide to restudy a particular item. Whether young children consider their prior test performance and potential reward (or both) when deciding what to restudy is currently unknown. By the time they reach college, however, students do prioritize restudying the information that is least well learned and that would earn the most reward if correctly remembered (e.g., [Ariel et al., 2009](#); [Castel, 2008](#); [Castel et al., 2011](#); [Soderstrom & McCabe, 2011](#)). For example, when college students are allowed to restudy previously tested material that varies in the percentage likelihood that items will be tested again (30% vs. 90%), they prefer to study previously unrecalled items that have the highest likelihood of being tested in the future. Likewise, when the reward for learning items varies in point value (1 point vs. 5 points), college students prefer to select unrecalled items assigned the highest point value for restudy ([Ariel et al., 2009](#)).

Most important, whether young children consider their prior performance and potential reward (or both) when deciding what to restudy is currently unknown. Will younger learners use their monitoring of learning as well as the potential reward to regulate their learning? The primary goal of the current experiments was to answer this question, focusing on potential differences between first and third graders' use of reward to make restudy decisions. In the remainder of the Introduction, we first consider prior research relevant to whether children use monitoring to control study, and we then turn to whether they also use reward.

Monitoring–control relationships for young children

Even young children have the ability to accurately monitor their learning when they are given an opportunity to evaluate their learning using retrieval tests that are delayed after study (e.g., [Lipowski, Merriman, & Dunlosky, 2013](#); [Schneider, Visé, Lockl, & Nelson, 2000](#)). Nevertheless, research suggests that some control processes may develop later (for a recent review, see [Schneider & Löffler, 2016](#)). For instance, despite age equivalence in monitoring ability, young children (first graders) do not always use monitoring when allocating their study time. First graders allocate equal time to studying easy and difficult material ([Koriat, Ackerman, Lockl, & Schneider, 2009](#); [Lockl & Schneider, 2004](#)), and in one study they were just as likely to select previously recalled and previously unrecalled items for restudy ([Masur, McIntyre, & Flavell, 1973](#)). In contrast, by third grade students appear to use monitor-

Download English Version:

<https://daneshyari.com/en/article/5039945>

Download Persian Version:

<https://daneshyari.com/article/5039945>

[Daneshyari.com](https://daneshyari.com)