

1.Title [Improving self-monitoring and self-regulation: From cognitive psychology to the classroom](#)

Author Anique B.H. de Bruin | Tamara van Gog

Journal Learning and Instruction, Volume 22, Issue 4, August 2012

Abstract Although there is abundant experimental metamemory research on the relation between students' monitoring, regulation of learning, and learning outcomes, relatively little of this work has influenced educational research and practice. Metamemory research, traditionally based on experimental paradigms from cognitive psychology, can potentially contribute to designing and improving educational interventions that foster self-monitoring and self-regulation in children, adolescents, and young adult learners. We describe the metamemory paradigm, and provide a short overview of the insights it has generated with regard to improving metacognitive skills in these groups of learners. Moreover, we summarize the contributions to this special issue on translating insights from cognitive psychology research on metamemory to educational research and practice, and describe possible themes and directions for future research that could further bridge the gap between fundamental and more applied research on metacognition, so as to design effective educational interventions.

Keywords: Metacognition; Metamemory; Self-monitoring; Self-regulation; Children

2.Title [Feedback providing improvement strategies and reflection on feedback use: Effects on students' writing motivation, process, and performance](#)

Author Hendrien Duijnhouwer | Frans J. Prins | Karel M. Stokking

Journal Learning and Instruction, Volume 22, Issue 3, June 2012

Abstract This study investigated the effects of feedback providing improvement strategies and a reflection assignment on students' writing motivation, process, and performance. Students in the experimental feedback condition ($n = 41$) received feedback including improvement strategies, whereas students in the control feedback condition ($n = 41$) received feedback without improvement strategies. Within each feedback condition, half of the students received a reflection assignment on feedback use and the revision (experimental reflection condition), while the other half received a reflection assignment on feedback perception (control reflection condition). Results indicated that in the experimental feedback condition writing performance gained from the control reflection assignment, while in the control feedback condition it gained from the experimental reflection assignment. Improvement strategies negatively predicted self-efficacy beliefs, especially when initial self-efficacy beliefs were low, and positively predicted planning/revising. Reflections on feedback use and the revision positively predicted mastery goal when mastery goal initially was low or moderate.

3.Title [Overconfidence produces underachievement: Inaccurate self evaluations undermine students' learning and retention](#)

Author John Dunlosky | Katherine A. Rawson

Journal Learning and Instruction, Volume 22, Issue 4, August 2012

Abstract The function of accurately monitoring one's own learning is to support effective control of study that enhances learning. Although this link between monitoring accuracy and learning is intuitively plausible and is assumed by general theories of self-regulated learning, it has not received a great deal of empirical scrutiny and no study to date has examined the link between monitoring accuracy and longer-term retention. Across two studies, college students paced their study of key-term definitions (e.g., "Proactive interference: Information already stored in memory interferes with the learning of new information"). After all definitions were studied, participants completed practice cued recall tests (e.g., "What is proactive interference?") in which they attempted to type the correct definition for each term. After each test trial, participants judged how much of their response was correct. These study-test-judgment trials continued until a definition was judged as correct three times. A final cued recall test occurred two days later. In Study 1, judgment accuracy was manipulated experimentally, and in Study 2, individual differences in accuracy were examined. In both studies, greater accuracy was associated with higher levels of retention, and this link could not be explained by differential feedback, effort during study, or trials to criterion. Results indicate that many students could benefit from interventions aimed at improving their skill at judging their learning.

4.Title [Training self-assessment and task-selection skills: A cognitive approach to improving self-regulated learning](#)

Author Danny Kostons | Tamara van Gog | Fred Paas

Journal Learning and Instruction, Volume 22, Issue 2, April 2012

Abstract For self-regulated learning to be effective, students need to be able to accurately assess their own performance on a learning task and use this assessment for the selection of a new learning task. Evidence suggests, however, that students have difficulties with accurate self-assessment and task selection, which may explain the poor learning outcomes often found with self-regulated learning. In experiment 1, the hypothesis was investigated and confirmed that observing a human model engaging in self-assessment, task selection, or both could be effective for secondary education students' ($N = 80$) acquisition of self-assessment and task-selection skills. Experiment 2 investigated and confirmed the hypothesis that secondary education students' ($N = 90$) acquisition of self-assessment and task-selection skills, either through examples or through practice, would enhance the effectiveness of self-regulated learning. It can be concluded that self-assessment and task-selection skills indeed play an important role in self-regulated learning and that training these skills can significantly increase the amount of knowledge students can gain from self-regulated learning in which they choose their own learning tasks.

- 5.Title** [The relationships between monitoring, regulation and performance](#)
- Author** Asher Koriat
- Journal** Learning and Instruction, Volume 22, Issue 4, August 2012
- Abstract** The articles in this Special Issue reflect the growing interest in applying laboratory-based research to educational settings. These articles highlight the contribution of metacognitive monitoring and self-regulation to effective learning and performance. At the same time, they illustrate the methodological and theoretical challenges involved in bringing metacognitive research to the real world, using meaningful learning materials. In particular, the assumption of a linear causal chain from monitoring through regulation to performance represents a useful working hypothesis, but more complex interactions between these three components of self-regulated learning need to be considered.
- 6.Title** [Lifelong learning as a goal – Do autonomy and self-regulation in school result in well prepared pupils?](#)
- Author** Marko Luftenegger | Barbara Schober | Rens van de Schoot | Petra Wagner | Monika Finsterwald | Christiane Spiel
- Journal** Learning and Instruction, Volume 22, Issue 1, February 2012
- Abstract** Fostering lifelong learning (LLL) is a topic of high relevance for current educational policy. School lays the cornerstone for the key components of LLL, specifically persistent motivation to learn and self-regulated learning behavior. The present study investigated the impact of classroom instruction variables on concrete determinants for these LLL components. Participants in the present study were 2266 fifth, sixth and seventh graders from 125 classrooms. Multi-level analyses showed that perception of autonomy in the classroom is associated with pupils' motivational beliefs, and that perception that a classroom promotes self-determined performance and self-reflection of learning is a predictor of pupils' monitoring and assessment of learning. Additionally, the extent of perceived autonomy is an important factor in the reduction of gender differences in motivation. The results indicate the importance of providing pupils with appropriate learning contexts to better prepare them for successful LLL.
- 7.Title** [Confusion can be beneficial for learning](#)
- Author** Sidney D'Mello | Blair Lehman | Reinhard Pekrun | Art Graesser
- Journal** Learning and Instruction, Available online 14 June 2012
- Abstract** We tested key predictions of a theoretical model positing that confusion, which accompanies a state of cognitive disequilibrium that is triggered by contradictions, conflicts, anomalies, erroneous information, and other discrepant events, can be beneficial to learning if appropriately induced, regulated, and resolved. Hypotheses of the model were tested in two experiments where learners engaged in dialogues on scientific reasoning concepts in a simulated collaborative learning session with animated agents playing the role of a tutor and a peer student. Confusion was experimentally induced via a contradictory-information manipulation involving the animated agents expressing

incorrect and/or contradictory opinions and asking the (human) learners to decide which opinion had more scientific merit. The results indicated that self-reports of confusion were largely insensitive to the manipulations. However, confusion was manifested by more objective measures that inferred confusion on the basis of learners' responses immediately following contradictions. Furthermore, whereas the contradictions had no effect on learning when learners were not confused by the manipulations, performance on multiple-choice posttests and on transfer tests was substantially higher when the contradictions were successful in confusing learners. Theoretical and applied implications are discussed.

SAGE Journal

8.Title [Design-Based Research A Decade of Progress in Education Research?](#)

Author Terry Anderson | Julie Shattuck

Journal EDUCATIONAL RESEARCHER January/February 2012 vol. 41 no. 1

Abstract Design-based research (DBR) evolved near the beginning of the 21st century and was heralded as a practical research methodology that could effectively bridge the chasm between research and practice in formal education. In this article, the authors review the characteristics of DBR and analyze the five most cited DBR articles from each year of this past decade. They illustrate the context, publications, and most popular interventions utilized. They conclude that interest in DBR is increasing and that results provide limited evidence for guarded optimism that the methodology is meeting its promised benefits.

9.Title [The State of Wiki Usage in U.S. K–12 Schools](#)

[Leveraging Web 2.0 Data Warehouses to Assess Quality and Equity in Online Learning Environments](#)

Author Justin Reich | Richard Murnane | John Willett

Journal EDUCATIONAL RESEARCHER January/February 2012 vol. 41 no. 1

Abstract To document wiki usage in U.S. K–12 settings, this study examined a representative sample drawn from a population of nearly 180,000 wikis. The authors measured the opportunities wikis provide for students to develop 21st-century skills such as expert thinking, complex communication, and new media literacy. The authors found four types of wiki usage: (a) trial wikis and teacher resource-sharing sites (40%), (b) teacher content-delivery sites (34%), (c) individual student assignments and portfolios (25%), and (d) collaborative student presentations and workspaces (1%). Wikis created in schools serving low-income students have fewer opportunities for 21st-century skill development and shorter lifetimes than wikis from schools serving affluent students. This study illustrates the exciting potential that Web 2.0 data warehouses offer for educational research.

10. Title [Teacher Professional Development Focusing on Pedagogical Content Knowledge](#)

Author Jan H. Van Driel | Amanda Berry

Journal EDUCATIONAL RESEARCHER January/February 2012 vol. 41 no. 1

Abstract Because pedagogical content knowledge (PCK) includes teachers' understanding of how students learn, or fail to learn, specific subject matter, the development of PCK is an important goal to focus on in professional development programs. The research literature clearly indicates the complex nature of PCK as a form of teachers' professional knowledge that is highly topic, person, and situation specific. This implies that professional development programs aimed at the development of teachers' PCK cannot be limited to supplying teachers with input, such as examples of expert teaching of subject matter. Instead, such programs should be closely aligned to teachers' professional practice and, in addition to providing teachers with specific input, should include opportunities to enact certain instructional strategies and to reflect, individually and collectively, on their experiences.