

Influences of Coaching, Augmented Reality Curriculum, Standards-Based Grading, and Students' Learning Trajectories on Teaching and Learning: Co-Editors' Notes

Jian Wang
Raymond Flores

Welcome to the Fall 2024 Issue in Volume 27 of the *Educational Research and Development Journal*. Due to the issues in the review and editorial process, this issue is finally in print with about a month delay, for which we will apologize and take responsibility as co-editors. In this issue, we are bringing four articles to you that examine the effects of instructional coaching, augmented reality-based children's books, standards-based grading, and pathways of high-achieving and under-achieving students on teaching and learning.

Teachers' quality responses to students learning and behaviors in their classrooms involve providing content input, prompting responses, presenting questions or statements, monitoring accuracy, and delivering feedback (MacSuga-Gage & Simonsen, 2015). These responses are central to improving student engagement and academic achievements (Haydon et al., 2010; Haydon & Hunter, 2011). Instructional coaching focusing on ongoing support, modeling, feedback, and specific data analysis could help develop teachers' quality responses to students in their classrooms (Kretlow & Bartholomew, 2010; Kretlow, Wood, & Cooke, 2011). In a case study, Johnson, Lo, and Nichols examined this assumption by analyzing the effects of data-driven coaching practices on an elementary school teacher's implementing responses to students' learning and behaviors as conceptualized. Drawing on the observation and survey data, the study demonstrated that data-driven instructional coaching substantially increased the number of teacher's responses to students' learning and behaviors as conceptualized. It also improved the various components of her responses to students' learnings and behaviors.

Augmented reality is an emerging technology that could transform children's reading experience and engagement (Fernández-Batanero, Montenegro-Rueda, & Fernández-Cerero, 2022). Such a technology integrates print and digital forms of reading materials and creates innovative pedagogical opportunities at the same time (Alhamad, Manches, & McGeown, 2024; Wang, 2022). However, the empirical examination of the effectiveness of augmented reality-based children's books on children's reading experiences and engagement has not been well-developed (Bujak et al., 2013; Liu et al., 2024). In the second study of this issue, Yang examined the effects of augmented reality-based children's books on fourth and fifth-grade students' reading experiences and engagements after being exposed to traditional graphic children's books, graphic books with augmented reality animation, and graphic books with augmented reality animation and comic language. The study revealed the positive effects of graphic books with augmented reality-based animation and comic language in captivating participants' reading enjoyment, personalizing reading to individual student's needs and learning styles, and encouraging their creativity and critical thinking in reading. It also showed several negative impacts, such as decreased participants' attention span in reading, weakened ability to read and understand traditional graphic texts, and undermined linguistic proficiency, such as vocabulary and syntax.

Teachers' standard-based grading of students' work focuses on making the meaning of grades explicit to students and other counterparts based on the grading metric developed following

educational standards and learning goals (Scriffiny, 2008). It has been found more useful in increasing students' engagement in learning and thorough comprehension of their course materials than the conventional points-based grading (Iamarino, 2014). Thus, policymakers have encouraged teachers to develop and implement such grading in their classrooms (Weaver, 2018). In the position study based on the relevant literature and practices, Zhang first analyzes the reasons for and benefits of supporting teachers in developing standards-based grading. Then, the study conceptualizes standards-based grading and its components and offers examples of how it can be used in developing grading rubrics for mathematics teaching practices based on specific standards and relevant learning goals. Finally, it identifies the challenges in supporting teachers in developing standard-based grading practices and the necessary empirical research addressing them.

Understanding the learning trajectories of students with different levels of academic performance constitutes the important knowledge bases on which individualized curriculum, teaching practices, and learning supports could be developed to effectively improve students' learning engagement and outcomes (Ding, 2008), especially for those under-performed students (Banerjee, 2016). Various factors could presumably shape such trajectories, including their sociocultural characteristics, ethnic/racial identities, self-confidence, beliefs, motivation for learning, previous learning experiences, relationship with their social environment, and institutional types, etc. (Crisp, Taggart, & Nora, 2015; Supovitz, Ebby, & Collins, 2024). In the last study of this issue, Yang and Cho explore this assumption by investigating the academic trajectories of gifted high-achievers and underachievers in South Korea's magnet high schools, drawing on the data of assessment and self-reported academic interest, intelligence beliefs, and parental involvement from 104 12th-grade students. It found that the levels of participants' early academic interest and academic demands positively predicted their long-term success. The targeted and culturally responsive instructional strategies are important in nurturing their early engagement, enhancing resilience, and developing strategies to mitigate their underachievement.

We hope the above four articles will help enrich your understanding of the following: The roles of instructional coaching in developing teachers' effective responses to students' learning and behaviors in classrooms, the effects of augmented reality-based children's books on students' reading experiences and engagements and using standards-based grading practices and addressing the challenges effectively in helping teachers develop such grading practices. Additionally, we hope these studies will be informative so you can examine similar issues deeply, extensively, and continuously.

Ultimately, we would like to thank the careful, critical, and hard work of all the reviewers for their thorough and constructive suggestions and comments. We also encourage all the Chinese American Educational Research and Development Association members, other professional researchers, and practitioners to contribute to the *Educational Research & Development Journal*. These contributions will make the journal a high-quality outlet for enriching our understanding of various professional education issues.

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