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Using Think-Aloud Protocols to Explore Students' Use of Knowledge Forum Analytic Tools

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Abstract

Digital technologies have drastically transformed the way in which we communicate, visualize, and work with information, giving rise to new research areas, such as child-computer interaction (Read & Bekker, 2011) and computer-supported collaborative learning (Dillenbourg, Jrvcl, & Fischer, 2009). Consequently, cognitive scientists are increasingly interested in understanding how children think and learn with digital technologies (e.g., Greenfield & Yan, 2005). This study uses concurrent think-aloud protocols to elicit children's explanations of how they use analytic tools to support their learning on an online platform called Knowledge Forum (Scardamalia, 2017). After using Knowledge Forum for eight months (Ma & Akyea, 2019), five third-graders participated in 20-minute sessions to interpret their online activities using analytic tools (e.g., bar charts, sociograms, word clouds). Generally, they were cognizant of their online behaviours, and the tools raised metacognitive awareness toward productive social interactions. Practical implications for using analytic tools to support self-regulated learning are discussed.