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EFP Takeaways

Technology Use and School Information Systems Degrees

Background

Educational technologies have been utilized in an attempt to improve curriculum delivery, data management, or communications between various constituents. However, the people and administrators who make the choices and procure these educational technologies are not the same as the end users of these technologies (i.e., students, parents, and teachers). Frequently, educational technologies are adopted at the district- or state-level and then are adopted at the individual school- or classroom-level. School-to-family communication technology is becoming increasingly popular, as these can potentially remedy communication gaps and better inform families about students' progress. Learning management systems are often utilized to help bridge this gap. A feature within learning management systems are nudges, automatic messages or prompts, to help promote greater usage and improve student outcomes. In a new study published in *EFP* vol. 15, issue 4, Peter Bergman examines the adoption and usage of learning management system technology.

The Study

This study examined parental and student use of a learning management system across fifteen school districts. The learning management system provided deidentified data on the parent portal, student portal, and teacher gradebook. These data are supplemented with data from The National Center for Education Statistics to obtain school-level characteristics, such as demographic details. Performance ratings of schools were used as a unified measure of school performance across districts. In total, Bergman analyzed outcomes for nearly 150,000 students across 250 schools in 15 school districts. The study also used a randomized controlled trial to test the effect of nudges in promoting usage of the learning management system.

Findings

Across the majority of the schools, only one-quarter of the families ever logged in to the system by the end of the year. A small fraction, only 4%, utilized the learning management system on a weekly basis. The majority of families utilized the students accounts – with nearly 50% of student accounts being used across the academic year.

Overall, school-level adoption rates of the learning management system were positively associated with family-income, school-level test scores, and teacher usage. Similarly, those families with high-achieving students were more likely to adopt the technology.

While learning management systems show promise for potentially bridging achievement or performance gaps, the results from this study suggest that this will likely not happen without intervention. Further, it also highlights the importance of teacher engagement in the portal to encourage parental use of the learning management system. Lastly, nudges can help increase family usage. Ultimately, learning management systems do show promise as a way to help promote modest improvement in student outcomes, but further intervention to promote usage among disadvantaged families may be needed.

For more details:

- View the [full issue](#).
- See the full [article](#) in Education Finance and Policy.
- [Sign up here to receive future EFP Takeaways](#).
- Summary of:
Bergman, P. (2020). Nudging technology use: Descriptive and experimental evidence from school information systems. *Education Finance and Policy*, 14(4), 623-647.