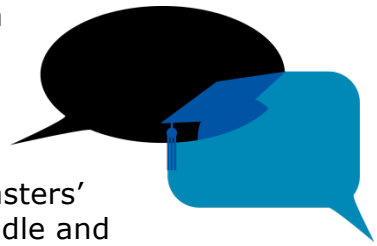
Methodology
Teaching in a Digital Age Phase 1

Participants



Forty-four educators from seven schools participated in the study, representing a diverse range of technology initiatives, years of implementation, regions of the country, and student populations served. The administrators and teachers in the study reported that they held either Bachelors' degrees (32.5%) or Masters' degrees (67.5%). Grade levels taught were mostly middle and high school but expertise ranged from grades 1 to 12. More than half of the teachers (55%) reported that they had been teaching for more than 10 years, whereas (30%) of the teachers reported that they had been teaching for six to 10 years, and (15%) reporting having had less than five years of the teaching. The focus group interviews were conducted to gather educator expertise which technology-enabled strategies the teachers used to improve student outcomes. Participation was voluntary and the teachers were offered an honorarium for their time.

Design

Using a qualitative research approach, the focus groups were conducted for the teaching and administrative staff at each of the seven locations. The participants completed a brief form to document information, such as which grade levels and content areas they taught; how many years they had been teaching; and what is the extent of their experience, familiarity, and perception of technology. The focus group questions were standardized across all seven schools.

An independent group of researchers participated in the analysis of focus group transcripts and interview themes. The focus groups and interviews were digitally recorded and uploaded to a transcription service. The researchers reviewed the transcripts and audio files independently for recurring themes, using a previous publication's framework as a guide (see Shapley et al., 2010). The researchers convened twice as a group to discuss the study's findings, obtain consensus, and build a final document summarizing the themes and providing evidence for justification. In addition, the team reviewed information from the classroom observations and the teachers' responses from the surveys for additional evidence and feedback.

Procedure

At the start of the focus group, the teachers completed a brief form to gather information such as:

- Which grade levels and content areas they taught?
- How many years they had been teaching, in general, their specific grade, and at their respective school and district?
- What is the extent of their experience, familiarity, perception of technology?

The focus group questions were standardized across all seven schools, and designed to address a range of domains relevant to integrating technology into instruction based on the framework from a previous publication (see Shapley et al., 2010). The domains include:

- School factors such as leadership support, tech support, and innovative culture
- Program/Initiative factors such as digital devices and technological and pedagogical support
- Student factors such as technology proficiency, technology use, and engagement
- Student learning tasks/activities such as self-directed learning and small group work
- Teacher instructional model/practices, intellectual challenge, and rigor
- Teacher factors such as technology proficiency and openness to use of tech

A follow up to each focus group was conducted using an online survey via Survey Monkey. The purpose of this survey was for teachers to report their technology fluency and usage—this portion is strictly for the reader to get a sense of how "tech savvy" the teachers were in the study.

Additionally, the administrators were interviewed at each site; also, in two cases, we interviewed the administrators from the district offices, as well as the tech support staff. Similar to the interview questions for the focus groups, all questions were standardized and based on the framework from a previous publication (see Shapley et al., 2010).

To observe and verify that the instructional strategies were properly addressed in the focus groups and during the interviews, we scheduled classroom visits with a few of the teachers who participated in the focus groups, as well as from the other teachers in the building. We used an informal classroom observation form to document observed practices in each of the following areas:

- Student and teacher collaboration
- Use of instructional time
- Assessment and feedback
- Classroom management
- Student grouping
- Student engagement
- Critical thinking
- Other

Again, participation was strictly voluntary and the teachers could determine the length of the visits.

References

Shapley, K.S., Sheehan, D., Maloney, C., & Caranikas-Walker, F. (2010). Evaluating the Implementation Fidelity of Technology Immersion and its Relationship with Student Achievement. *Journal of Technology, Learning, and Assessment*, 9(4).

Research & Innovation NETWORK

About the Teaching in a Digital Age Research

States and districts are investing heavily in educational technology, aiming for a transformational change in student learning. The crucial next step is to effectively integrate technology with instruction to improve learning outcomes. Pearson, Digital Promise, National Network of State Teachers of the Year (NNSTOY), and the University of San Diego have come together to research digital learning strategies and how they positively affect student learning. Separating tools from toys, this research strives to provide evidence-based recommendations for educators to implement in their classrooms.

Learn more at ResearchNetwork.Pearson.com