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## Embedding Self-Management into Mobile Learning Experiences

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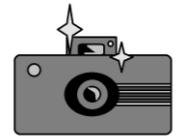
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## Embedding Self-Management into Mobile Learning Experiences

### Cover Page Footnote

Footnote: For more information regarding Pearson's Self-Management Framework and Mobile Learning Design Principle, please visit: <https://www.pearson.com/corporate/efficacy-and-research/skills-for-today.html>. [https://www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/efficacy-and-research/methods/learning-principles/Mobile\\_Learning-Learner\\_Affordances.pdf](https://www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/efficacy-and-research/methods/learning-principles/Mobile_Learning-Learner_Affordances.pdf)



## Embedding Self-Management into Mobile Learning Experiences

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### ABSTRACT

Today's college students have become increasingly reliant on mobile devices, using them to remain connected, knowledgeable, and social on the go. Undoubtedly, self-management skills play a critical role in students' ability to independently set goals, monitor their progress, and evaluate and assess their performance while engaging with mobile devices for their learning. This paper will provide an overview of a survey study of mobile learning and offer some self-management recommendations to leverage and support students' mobile learning experiences.

*Keywords: Mobile Learning, Trends vs. Fads*

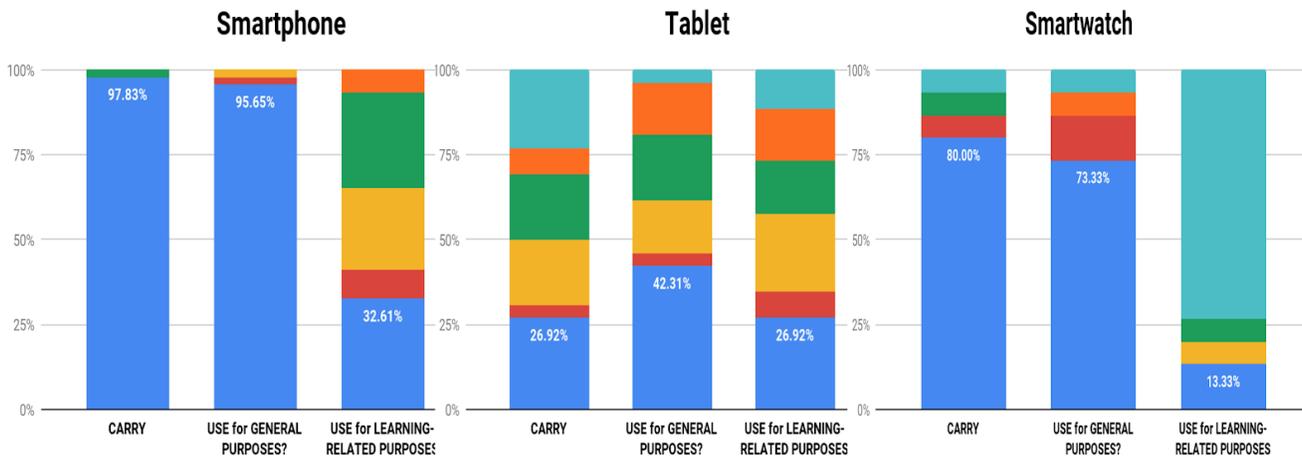
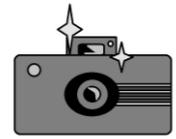
### INTRODUCTION

Access to and use of mobile devices have increased tremendously and transferred into academic spaces, offering learners an alternative learning method to engage with content in new spaces and new ways (Alexander et al., 2019). Specifically, students now have increased access to portable mobile devices such as: laptops, tablets, smartphones, smartwatches, etc. Technology has continued to emerge and evolve to accommodate and support the growing needs of society. However, students have also been described to rely heavily on their mobile devices for daily communication, information seeking, and social connectedness (Mihailidis, 2014). Such reliance on technology has been a concern to educators who see mobile devices' ability to distract and interrupt the learning experience. In recognition that mobile devices are here to stay, we believe there is the potential to connect and enhance the experience through the introduction of mobile learning and self-management techniques. This brief will share an overview of mobile learning and mobile trends, the challenges to mobile usage, the role of self-management, and what educators and instructional designers can do next to support learners' use of mobile devices in managing their learning.

### MOBILE LEARNING & DEVICE TRENDS

Mobile learning is just-in-time learning that occurs across multiple contexts, through social and content interactions, using personal electronic devices (Crompton, 2013; Martin & Ertzberger, 2013). It can be used to increase levels of engagement, personalization, and autonomy in a learning experience (McQuiggan, Kosturko, McQuiggan, & Sabourin, 2015). Many studies have looked at general mobile device use, but very few have focused on the usage in regards to formal and informal learning.

To begin to understand current trends and usage of mobile learning, we conducted a student survey that focused on smartphones, tablets, and smartwatches. Laptops were not included in this iteration due to their large screens and close similarities to desktop computers. The survey featured responses from 46 students from higher education institutions across the United States. Based on our results, all students reported that they own a smartphone and use it for general purposes well over seven or more times a week. However, only 33% of smartphone users reported using their device for learning seven or more times a week. Tablet users also displayed high ownership (57%), but only 27% confirmed they carry their device and use it over seven times a week for learning. In comparing across devices (Figure 1), we found similar usage for



**Figure 1.** Frequencies 'per week' of carrying and using mobile devices for general and learning-related purposes.

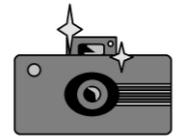
learning only between smartphone and tablets, which may indicate they may be the preferred mobile devices to use for learning. Students reported barely using their smartwatches for learning, a point we attribute to the smaller screens associated with those devices.

In addition to the frequency of students' mobile learning, we explored how students engage with mobile devices for learning. About 90% of students reported that they enjoy using mobile for quick references or information (e.g., YouTube and Google search); 67% like using mobile for easy on-the-go practice (e.g., flashcard and shared deck) or to explore different areas of interest; and over 50% like using mobile to manage their learning or engage in alternative forms of learning (e.g., Blackboard, Calendar, and Audible). Compared with personal mobile use, students reported that they use mobile for learning much less than we anticipated (Figure 1). Students' use of mobile for learning seems to be much more informal, self-guided, and independent (Chen & deNoyelles, 2013). This may make it much harder to gain a true assessment of their academic mobile use. The students in the survey also highlighted the top five challenges to their mobile use, which included: the small screens of devices, bad usability, bad compatibility of applications across devices, distraction issues, and poor internet connectivity. In students' opinions, instructors can best support their learning by recommending mobile-friendly applications and websites and making course materials easier to access across devices.

## ROLE OF SELF-MANAGEMENT

Students' mobile learning experiences are typically personal and autonomous, which may allow students to be easily distracted. Self-management can be particularly helpful to minimize distraction issues. It is a skill that gives students the ability to intentionally and strategically manage their emotions, behaviors, efforts, and environment in the pursuit of their learning goals (Yarbro & Ventura, 2018). When students demonstrate high levels of self-management, they will engage in tasks on their own because they find them interesting or important (Deci, Ryan, & Williams, 1996). If their self-management levels are low, students may feel forced and unmotivated to engage in learning. However, based on principles of self-management and past research on self-regulation, there are ways for educators and instructional designers to promote self-management within the mobile experience. Past research suggests that self-regulated learning should be modeled by: encouraging goal-setting, providing direct instruction on self-regulation strategies, offering prompts to spark metacognitive reflection, providing tutor feedback, and fading scaffolding as appropriate (Zimmerman, 2002; van den Boom et al, 2004; Winters, Greene, & Costich, 2008).

Additionally, Pearson's Self-Management Framework (Table 1) can assist educators and instructional designers to consider ways of embedding self-management elements into effective mobile learning environments. When learners have an active role in their learning, distractions decrease and they are able to



develop their own cognitive and operative skills (Fang, 2009). Through self-management training that is embedded in mobile experiences, students' self-management skills can be developed and applied beyond the mobile environment.

**Table 1.** Pearson: Self-Management Framework (Yarbro & Ventura, 2018)<sup>1</sup>

	Definition
<b>Planning</b>	Setting goals and determining what activities need to be completed to accomplish specific goals.
<b>Organization</b>	Keeping items in a specific order to improve efficiency.
<b>Persistence</b>	Applying appropriate levels of effort to tasks, in spite of obstacles of difficulties.
<b>Progress monitoring</b>	Accurately tracking and assessing one's knowledge, skills, and progress. Choosing appropriate strategies to evaluate and improve one's knowledge, skills, and progress.
<b>Control</b>	Effectively regulating behaviors and emotions, typically to support goal pursuit.
<b>Attention to detail</b>	Having careful and precise work habits.

## FUTURE STEPS

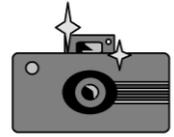
As educational stakeholders, we can continue to assist learners to overcome the challenges experienced during mobile usage by investing in designs that make learners active in their learning and enable them to further develop their skills. Learners will continue to engage and rely on new technology as they evolve, so our continued commitment is imperative to helping them self-direct their experience. Future studies should

<sup>1</sup> For additional information on Pearson's Self-Management Framework and Mobile Learning Design Principle, please visit: <https://www.pearson.com/news-and-research/efficacy/skills-for-today.html> and [https://www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/efficacy-and-research/methods/learning-principles/Mobile\\_Learning-Learner\\_Affordances.pdf](https://www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/efficacy-and-research/methods/learning-principles/Mobile_Learning-Learner_Affordances.pdf)

explore ways to adequately support learners in managing their mobile learning experiences. Teaching and learning designers should continue to monitor how learners learn and teachers teach in order to create designs that are relevant, authentic, and cultivate students' habits of continuous self-learning and lifelong learning (Wang, Wu, & Wang, 2009).

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