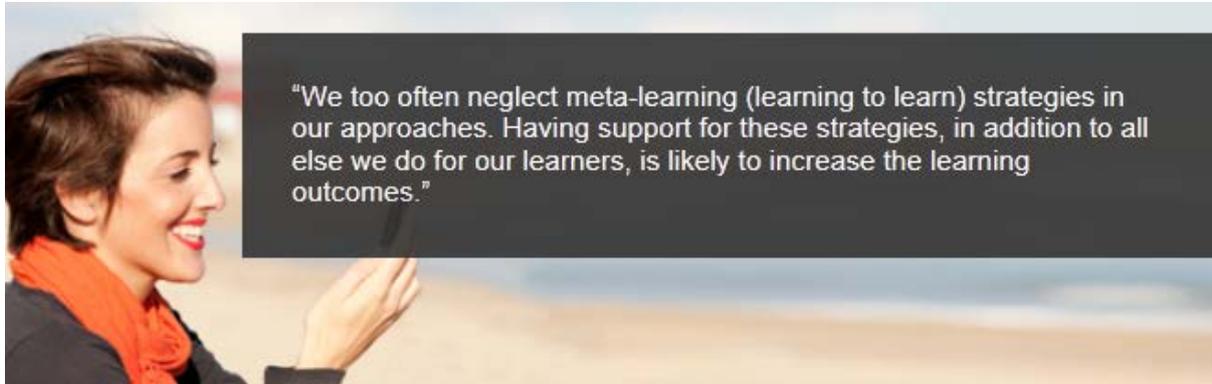# Can Text Messages (SMS) Support Learning? (Nov 12)

By Clark N. Quinn

November 28, 2012

"We too often neglect meta-learning (learning to learn) strategies in our approaches. Having support for these strategies, in addition to all else we do for our learners, is likely to increase the learning outcomes."

Do you take the time to read through examples provided in learning experiences and explain to yourself why the author took each step? The most successful learners do. Studies have found positive results for providing support for learning strategies, particularly for at-risk learners. Yet too much intervention and the cure may be worse than the disease. How do we provide support on a manageable basis?

The study

Goh, T.T., B.C. Seet, and N.S. Chen, (2012). "The Impact of Persuasive SMS on Students' Self-Regulated Learning." *British Journal of Educational Technology*, 43(4).

The question

Support for learners, particularly those identified as "at risk," is demonstrably valuable, but learner support provided beforehand tends to dissipate quickly, and ongoing methods can be onerous. Could a lighter weight intervention help?

This study looked at using a common technology for reaching individuals—text messaging—to see if such a method could provide ongoing support in less intrusive ways.

The methods

One of the major requirements in the study situation was support for time management. The institution used an SMS system that allowed instructors to send messages to students by groups. Messages included supporting time management by reminders of assignments and class meetings, and providing motivational support.

The principles that B.J. Fogg (2003) espoused for persuasive technology provided guidance in the design:

- *Simplification* suggested SMS messages,
- *Personalization* was the result of using the students' actual schedules as a basis,
- *Suggestion* led to notices about assignment due dates and class meetings appearing at timely opportunities,
- *Conditioning* led to using positive achievement messages, and
- *Tunneling* supported sequencing activities in a sensible approach.

The messages took the forms of suggestions to review materials before class, reminders of times and rooms for classes, and motivational messages such as "You've made it to week five."

The Motivated Strategies for Learning Questionnaires (MSLQ), with 31 motivation items, 31 learning strategy items, and 19 resource management items, turned out to be an ideal assessment instrument, as well as using learners' grades. A control group design balanced the experimental intervention. The subjects were first-year university students.

The results

I almost stopped reading this study when I realized that the MLSQ report had 81 items, and they reported three significant results. It might seem meaningful to get correlations between learning strategies elements and the interventions, particularly when the elements are for self-efficacy, organization, and self-regulation. However, with 80 items, a .05 cutoff would suggest four significant results just by chance (a caution on experiment design)!

Fortunately, there were significant impacts on the final grade, a promising result. The experimental group receiving messages had an average grade of 70.66 versus an average grade of 62.67 for the control group.

Implications for eLearning design

We too often neglect meta-learning (learning to learn) strategies in our approaches. Having support for these strategies, in addition to all else we do for our learners, is likely to increase the learning outcomes. Simple approaches to supporting learners through the learning process have worked in other media, such as early efforts to increase persistence in online learning. Moreover, mobile technologies—the essentially ubiquitous text message—is a viable mechanism and in many ways an opportune channel for providing such learning support.

We can and should not only extend the learning process until we can ascertain that the outcomes will persist, but consider supporting the learning process itself, not just the domain learning.

Reference

Fogg, B.J. (2003). *Persuasive Technology: Using Computers to Change What We Think and Do.* San Francisco: Morgan Kaufmann.

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