



# Gamification and mLearning in the Index-Based Livestock Insurance project

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Despite numerous training programs delivered by governmental and non-government organizations in the arid and semi-arid land areas of Kenya and Ethiopia, little research has focused what forms of training are most effective and with which audiences. The Index-Based Livestock Insurance (IBLI) project of the International Livestock Research Institute (ILRI) is addressing this need by conducting a randomized control trial (RCT) of an mLearning program for private sector sales agents of the IBLI product. It is generally believed that mobile learning will be an effective pedagogical tool, given the high levels of mobile phone penetration in Kenya and the need to reinforce knowledge classroom-acquired knowledge through repetition over time.

However, this had never been substantiated through research. Therefore, the ILRI mLearning RCT is seeking to establish the comparative utility of financial and gamification incentives to motivate the targeted learners to follow a sequence of micro-lessons reinforcing previous learning. The term 'gamification' refers to the inclusion of elements of computer games in serious learning materials to keep learners engaged (Kapp 2014). The mLearning App awards learners with badges for high achievement in quizzes at the end of each micro-lesson and displays a leaderboard of the top achievers.

## mLearning and IBLI

Adult learning theory ('Andragogy') posits that most adult learners are motivated to learn for the purposes of enhancing their personal professional development and that they value 'just-in-time' learning that helps them to

do their job more effectively (Knowles 1984). The pivotal word here is 'most'. What does an organizational trainer do if sales agents need to grasp some abstract concepts—just in time—for a critical sales window but are not necessarily motivated to do so?

This was the challenge faced by the IBLI project, which collaborated with the private sector to introduce a transformative insurance product to help pastoralists in Kenya's arid landscapes. Misinformation spread by agents selling the IBLI product—through private sector insurance agencies—risked damaging the reputation of a new product new before it reached critical mass. One of the solutions currently being tested involves the use of mLearning combined with 'gamification' and financial incentives. mLearning involves the use of mobile devices as a learning platform—set to take off in Kenya where mobile phone penetration was 83.9 percent<sup>1</sup>.

UNESCO describes mLearning as involving 'the use of mobile technology—either alone or in combination with other information and communication technologies (ICT)—to enable learning anytime and anywhere. This ubiquitous availability makes mLearning eminently suitable for a mobile sales force. However, mLearning is not simply e-learning on a small screen. Learners cannot be expected to engage with their mobile device for a longer period of time than they would do so in more formal learning contexts, particularly if the mobile device is a typical low-end phone used in northern Kenya. Learners in this

1. According to Fourth quarter 2014–2015 Sector Statistics Report, Communications Authority of Kenya and the latest data from the Communications Authority of Kenya, between 15 June and September 2014, mobile phone penetration rose above 80%.

context are also less likely to pay to download video or other data-intensive content. Therefore, mLearning optimally comes in the form of 3–10 minute micro-lessons<sup>2</sup>.

With this in mind, IBLI worked academics from the University of California, San Diego (UCSD), to develop a simple mLearning training program consisting of micro-lessons that could be conveniently read by ILRI agents. Prior to the August-September 2015 sales window<sup>3</sup>, the mLearning app—the Pocket IBLT—was installed on the agents' phone to trial the utility of the approach. All sales agents involved in the trial were issued with the same smart phone—Alcatel pop CI 4009D—by the participating agency<sup>4</sup> as different screen resolutions and mobile operating systems could sometimes be an issue for mLearning providers.

To assess agent comprehension and motivate participation, each mLearning micro-lesson includes a simple quiz connected to a central server. Various alternative incentive structures are being trialled, including financial incentives and gamification, which involves the inclusion of computer game elements in learning programs, like badges and leaderboards (Kapp 2014). In this instance, learners were awarded badges for passing the quizzes and after syncing with the central server were able to view their position relative to other agents on an application, leaderboard.

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Capacity development is a prominent feature of ILRI's strategy. This refers to the intentional and purpose-driven efforts to increase stakeholder capacity to undertake and use research to generate development outcomes and scale up in a sustainable manner. ILRI Capacity Development Briefs highlight the depth and breadth of these ILRI and partner activities, and are circulated to contribute to improved practices and better lives through livestock. The briefs are purposively kept short and provide 'snapshots' of the topics they cover.

2. <http://elearningindustry.com/mlearning-the-way-of-learning-tomorrow>.

3. The IBLI/IBLT product is sold immediately prior to the rainy season over a two-month period known as the 'sales window'

4. Takaful Insurance of Africa

The randomized control trial is being undertaken in the following way:

- One-quarter of the sales agents receive the micro-lessons and quizzes, but no extrinsic incentives to complete the training or the quizzes.
- One-quarter of the agents are offered mobile phone credit for passing the quizzes.
- One-quarter receive digital badges for performing well.
- One-quarter are not offered mLearning support.

Success will be judged on sales performance and a test of knowledge administered immediately after the sales window. Depending on the findings, the best approach will be adapted and used to reinforce on IBLI training. Adult learning theory suggests that most adult learners are motivated to learn to enhance their personal professional development and value 'just-in-time' learning. Therefore, the most appropriate approach will help them improve their job performance.

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