Pieri, M. and Diamantini, D. *From E-learning to mobile learning: New opportunities.*

Pieri and Diamantini discuss the difference between mobile learning and e-learning saying that mobile learning is the "natural evolution of e-learning." They go on to say that m-learning (mobile) is "e-learning using a mobile device over a wireless connection and is the point where mobile computing and e-learning intersect to produce an anytime, anywhere learning experience." What they are essentially saying is that any moment anywhere can be a learning experience using m-learning creating a host of new challenges and experiences for the learner and instructor alike.

The researchers discussed what has been used in Italy for training and spoke of how it is mostly face-to-face instruction and is very time consuming. They decided to use a blended learning approach of m-learning, e-learning, and face-to-face instruction to determine whether this approach would be beneficial in the training of TT managers (Technological Transfer). For the sample, they chose fifteen people (5 men and 10 women) all with university education including some advanced studies. All were high-level employees who have a role and function relative to the objectives of the training, are motivated to learn, and have a demonstrated real need for the training.

Results of early questionnaires and interviews showed some difficulty in participants using the computer for learning as well as a work tool and while they viewed the contents positively, had difficulty assimilating the new knowledge. Researchers determined that it might be helpful to have a precourse to introduce the use of the computer as a learning tool. After completing the preliminaries, they determined that the experience of blended learning can be divided as follows:

1. Face to face meeting with the students, during which a pre-questionnaire is administered and the Pocket PC is presented and distributed to the students.
2. Completion of a learning unit on mobile learning.
3. Face to face meeting with the students to discuss the new learning methodology.
4. Completion of the didactic module on one of the topics taken from the needs analysis made in Phase 1.
5. Face to face meeting with the students for the discussion of their observations and the administration of the assessment questionnaire about the experience. (page 189)

Looking at the parts of the blended learning strategy we see that the pre-questionnaire was used to understand how the learning instrument can be used. It was important to note that trainers need to know what mobile devices the participants have, how they use them, and how they are willing to use them. The didactic modules were learning objects in text and audio followed by tasks to complete. The results, once shared in face-to-face meetings, will lead to the co-construction of common knowledge. The assessment questionnaire considered the benefits of m-learning, device features, beliefs about the device as a learning tool, and the structure of the course.

Researchers have so far determined that the blended m-learning experience is more useful for TT managers than the blended e-learning. One thing they noted was that it is "important that the mobile device is seen from the start not as an instrument limited to a temporary experience, but as a permanent instrument of life-long learning." Participants noted that the devices were easy to use, filled empty periods of time with learning experiences and learning using a device was an enjoyable way to learn.