

Where is my time? Identifying productive time of lifelong learners for effective feedback services

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2014 International Computer Assisted Assessment (CAA) Conference

Research into E-Assessment

30 June & 1 July 2014, Zeist, The Netherlands

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Research Centre for Learning, Teaching and Technology

Open Universiteit
welten-institute.org



Agenda

- Problem identification
- Motivation
- Contribution
 - Classification framework
 - Qualitative study
- Conclusions
- Limitations
- Future work



Problem identification

Choosing time and learning opportunities effectively is one of the major challenges for lifelong learners.

1. Difficulty to find suitable time slot to learn during the day

Tabuenca, B., Ternier, S., & Specht, M. (2013). Supporting lifelong learners to build personal learning ecologies in daily physical spaces. *International Journal of Mobile Learning and Organisation*, 7(3), 177-196.

2. Participation in lifelong learning activities has decreased from 2006 to 2011.

European Commission (2013). Lifelong learning statistics. Eurostat report.
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Lifelong_learning_statistics#

Motivation

Combine working, family, leisure & learning. Integrate learning activities in daily life.

How?

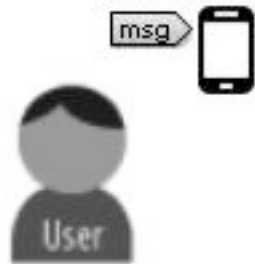
- Identify best learning moments
- Identify available resources
- Self organize learning day
- Set realistic goals
- Keep track of learning preferences
- Provide effective feedback services

The contribution of this manuscript

1. A classification framework to support lifelong learners in their need to model their learning day by instantiating different variations of the ESM
2. Mobile application for experience sampling method



Classification framework



Receive notification

Delivery Mechanism

Visual

Audible

Tactile

Trigger time

Scheduled-based

Random

Event-based

Location

Artefact ID

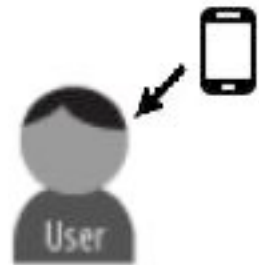
Time

Relation

Environment



Classification framework



Dispatch question

Question design

Order

Fixed

Random

Dependency

Probability

Prompt format

Text

Rich/text

Complex control

Multiple choice question

Ranking

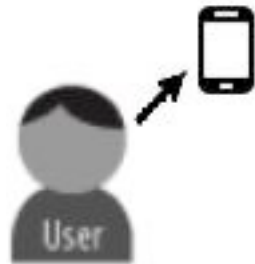
Mappings

Sliders

Sensor data

Timeout

Classification framework



Qualitative study

Participants: 12 voluntary students

Materials:

Smartphones

ESM App (based on ARLearn)

Design:

Lecture

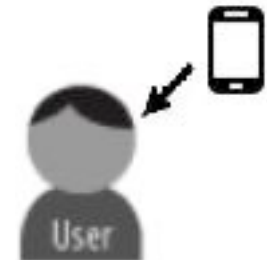
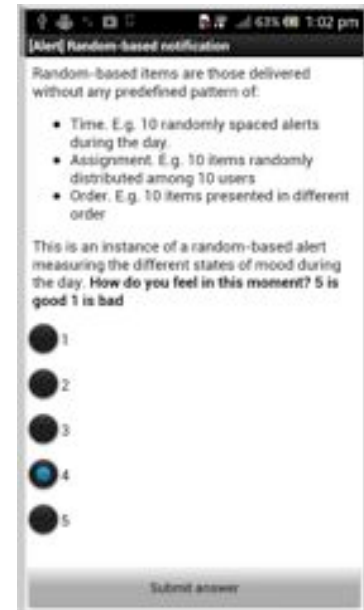
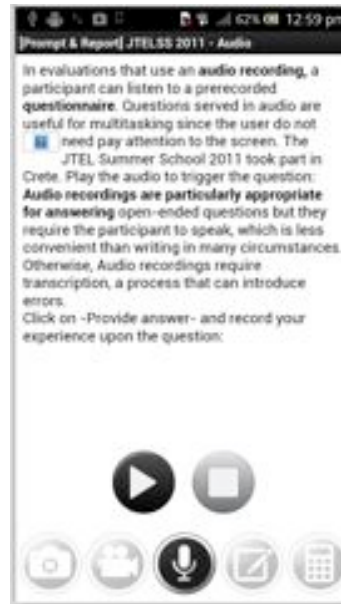
Field trip

Questionnaire & Discussion



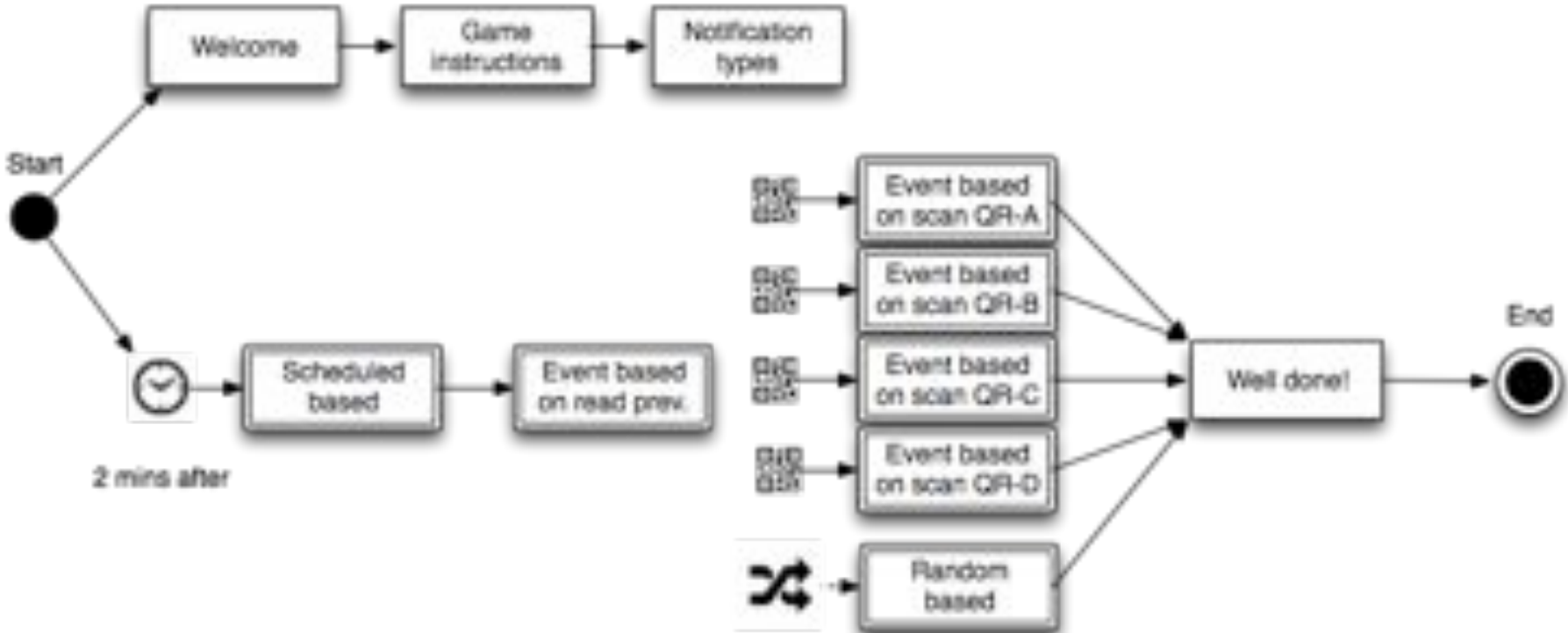
Qualitative study

Procedure

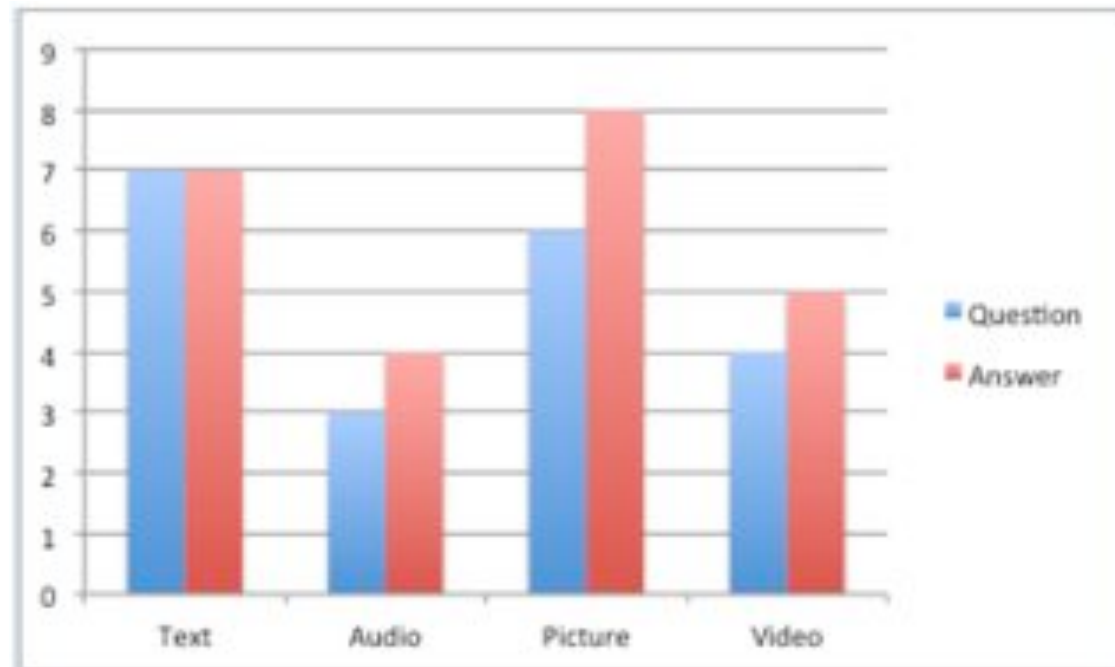
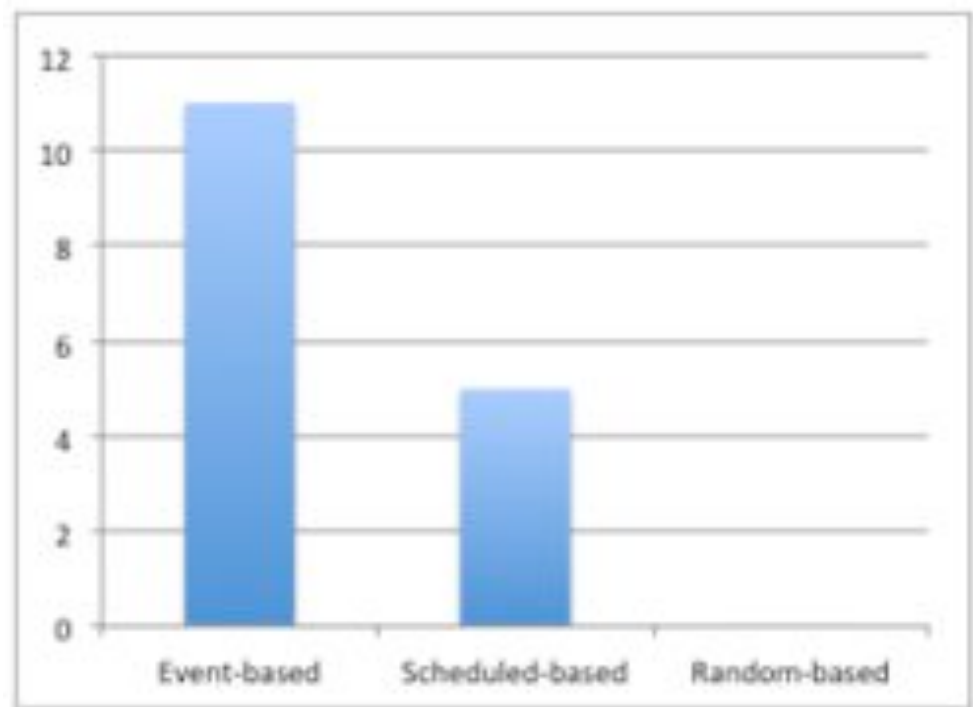
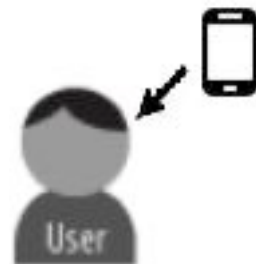


Qualitative study

Flow



Results



Conclusions

- This model is a suitable approach for:
 - Introspection and modelling the learning day in lifelong learners
 - Facilitate an intimate and exhaustive data collection on learning habits in context
 - Measure quality and quantify of the learning moments.

Limitations

- Exceptional learning context. LLL implies daily routines
- Length in time was too short. Need for longitudinal studies.
- Results might be specific to the ESM app. There is a need to review existing apps for ESM in makets



Future work. Set learning goals

Lifelong Learning Hub

 <http://www.ttag.be/m/049EB291212580>

 Set a name to the goal

B2 level in Dutch

What is your expected outcome?

Pass official exam

How much time in the day will you set aside for this goal?

45

When do you expect to accomplish this goal?


June 2014


		S	M	T	W	T	F	S	
11	May	23	1	2	3	4	5	6	7
12	Jun	24	8	9	10	11	12	13	14
		15	16	17	18	19	20	21	
	Jul	22	23	24	25	26	27	28	


Lifelong Learning Hub

GOALS ACTIVITIES TAGS

Scatter chart Pie chart

 iOS Programming
Howtoworld for iPhone

 Blogging
Blog every day during breakfast

 B2 level in Dutch
Pass official exam

Lifelong Learning Hub

 B2 level in Dutch
23/06/2014 06:29:13

 B2 level in Dutch
23/06/2014 06:29:06

 Blogging
23/06/2014 06:28:45

 Blogging
23/06/2014 06:28:26

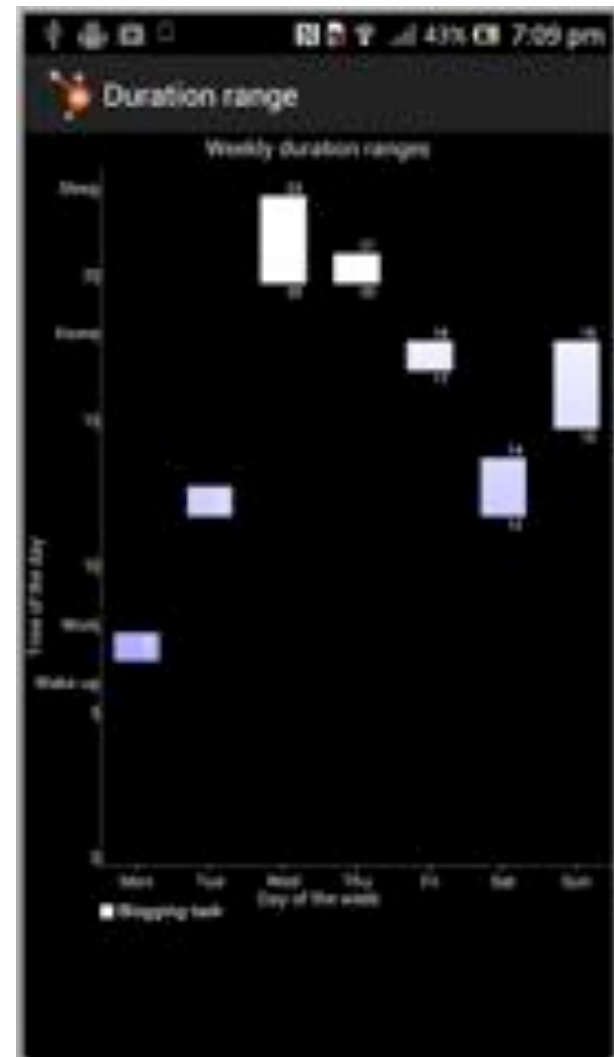
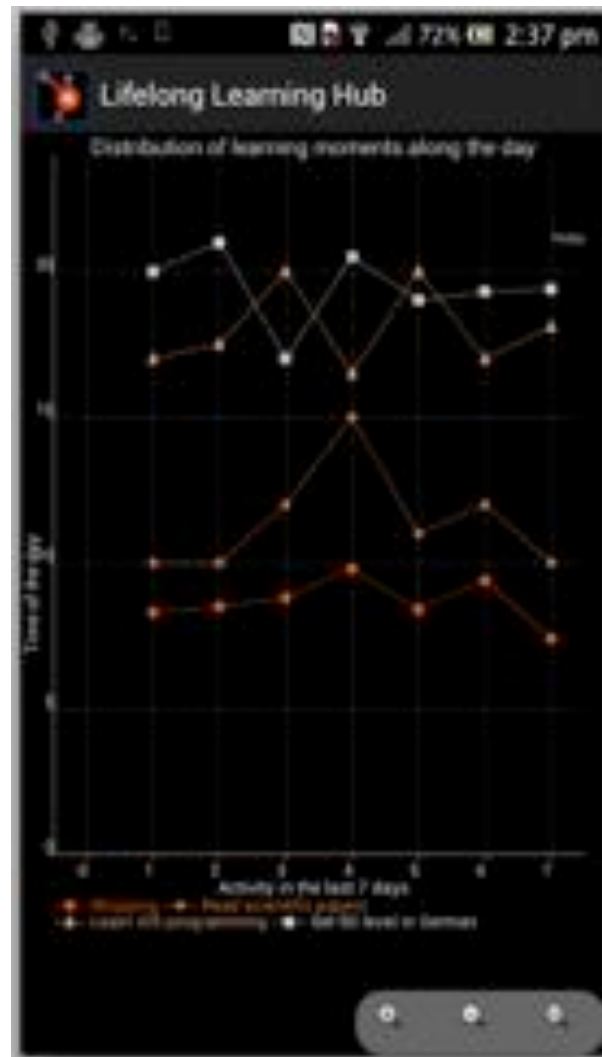
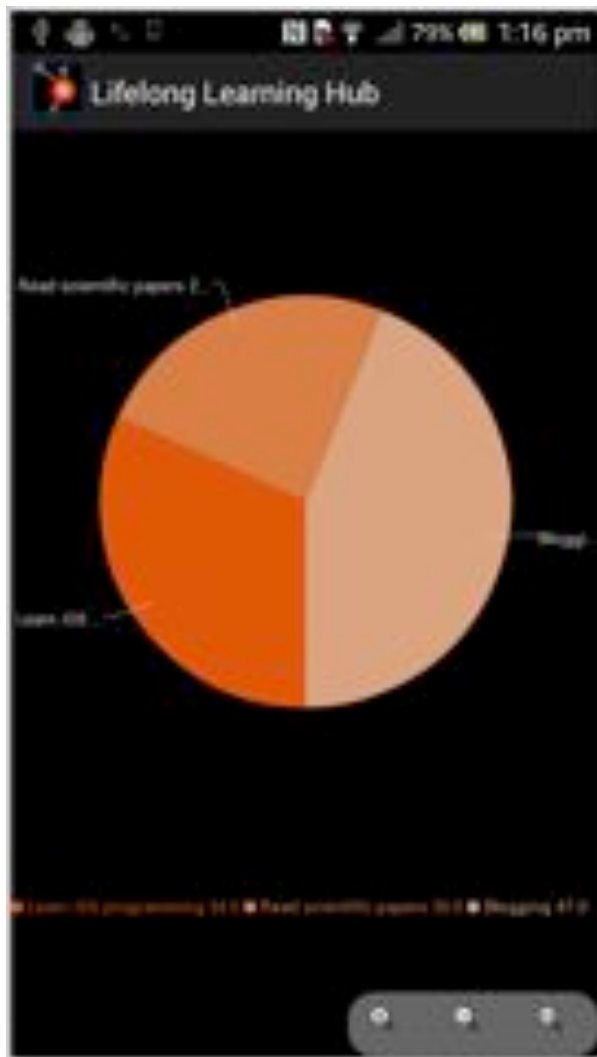
Tap to start/stop a learning activity



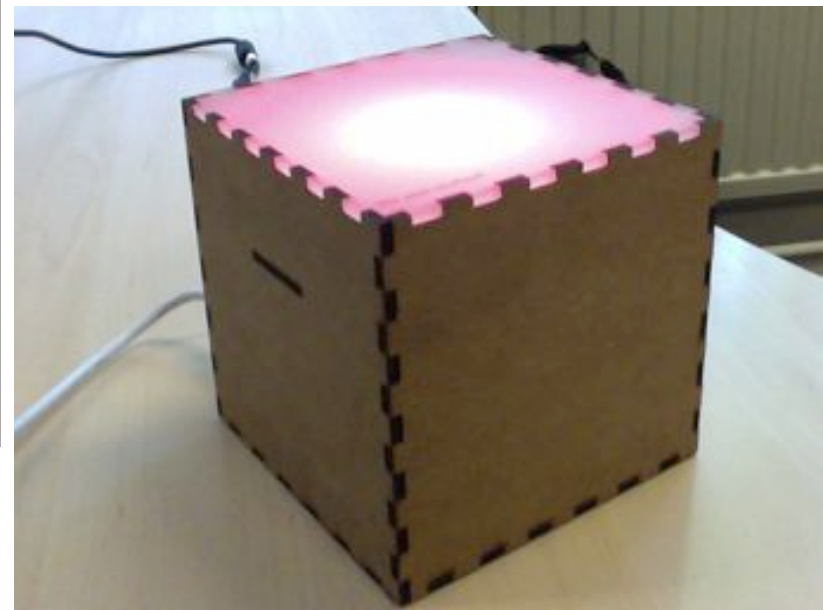
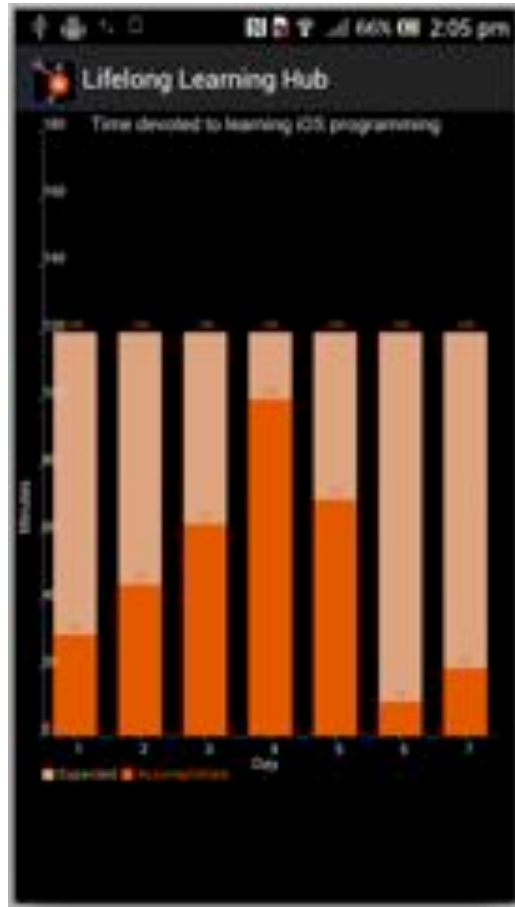
Bernardo Tabuenca, Welten Institute, 2014



Future work. Awareness



Feedback services



Questions?



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