Smart Mobile Learning for Environmental Education, World Science Day for Development and Peace, 2-3 December 2019, Bangkok

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Today’s learning environment

Smartphones
The smartphone is the first thing we look at after waking up, and the last thing we see before we go to sleep.

Distractions
Concentration is becoming distracted by incoming messages, calls, notifications.

Attention spans
The human attention span has fallen from 12 seconds since the mobile revolution began, to eight seconds.

Fragmented information
Information is often unspecific or incomplete. Search engines often deliver limited information.
Traditional learning theories

- **Behaviorism**
  - Understand
  - Remember

- **Cognitivism**
  - Create
  - Evaluate

- **Constructivism**
  - Analyze
  - Apply

Digital age

- **Connectivism**
  - Recognize
  - Connect
What we expect from future generations

**Communication**
Sharing thoughts, questions, ideas & solutions.

**Collaboration**
Working together to reach a goal. Putting talent, expertise, and smarts to work.

**Critical thinking**
Looking at problems in a new way and linking learning across subjects and disciplines.

**Creativity**
Trying new approaches to get things done equals innovation and invention.
What we talking about
A human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space.
People’s favorite device

Communication

Technology

Audio/Video

Collaboration

Games

Searching

Uniquizz for UNESCO,
The Plastic Initiative
Shift from E-learning to M-learning

Adaptive gamified learning and training

M(obile)- Learning is:

+ Bite-sized
+ Learning just a few minutes a day
+ Informal and personalized
+ On the go
+ Situational
+ Fun and Incentives (Sponsors)
Spaced repetition

Computers are really good in helping us with standardized and repeated actions.

Basic learning need repetition as we all forget. Mobile technology can be our reminder – like a fitness tracker – to memorize important basics and to build a foundation for creativity, innovation and further learning.

Source: Hermann Ebbinghaus, Forgetting Curve (1888)
Content & Learning Management

**Articles / Manuals**
Articles managed by the learner manager and content management system.

**Videos**
MOOC’s, How to videos, training modules with “step into the right second of instruction function”.

**Interaction**
Instagram like photo stream for sharing information and experiences.

**Surveys**
Engaging employees, collecting and assessing information and knowledge.

**LMS**
Manage topics and content
View statistics of learners in real time
Push notifications to learners
Interjected learning

While playing fun topics, learners are interrupted by questions from your learning courses. Just like advertisement on YouTube, users are allowed to skip the question for later.

8 fun questions
2 learning questions
Offer explanations to questions and answers after each game, or point learners to any source that is available online through the Uniquizz web browser.

The right information
In the right format
At the right time
To the right person
UNEP and Chulalongkorn University invited future government officers from 19 countries to improve their knowledge of Circular Economy.

Results:
- 6,872 questions answered
- 76% of questions answered correctly

Participants learning performance increased by 52%.
Orchestrating Smart Mobile Learning at the Department of public works Malaysia: **adaptive, interactive, easy to use** and highly **efficient**.

**JKR Users:**

- **75%** “An Excellent Learning Tool”
- **83%** “I Will Use UNIQUIZZ Frequently”
- **94%** “I Will Recommend To Others”

**UNEP: Mobile Circular Economy Academy:**

- **+52%** Knowledge Increase

**Dunkin’ Donuts:**

- Hygienic Standard Training
  - **+42%** Knowledge Increase,
  - **+15%** more Sales
Reaching out to the Youth

• Available on every smartphone

• Gamified, SoLoMo (social, local, mobile)

• Customizable to different stakeholders

• Relevant content easy to understand

• Used in education sector and training

• Knowledge increase by >40%, measurable!
The plastic Initiative

SDG Knowledge, Incentives and Gamification for Education and Corporates

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Thank You