The use of iPads in Kindergarten: An exploratory survey study

Robert A.P. REUTER & Gilbert BUSANA
University of Luxembourg

https://www.flickr.com/photos/mikeoliveri/6300500597
INTRODUCTION

- TechnoLink: EdTech Service of Luxembourg-City
- Pilot phase of mobile ICT deployment
- Technical & Pedagogical Reasons in favor of iPads in Kindergarten
- Questions about success of this initiative
- Inform policy makers & budget holders
Questions about enabling & hindering factors for ICT integration

What did Kindergarten Teachers do with the devices in terms of teaching models?

What did they expect the tool to change?

What changes did they observe?

Why did certain K-Teachers NOT use the devices?
“Big Questions” were negotiated with TechnoLink

Survey was designed and included a mix of types of questions: multiple choice and open text

Common & specific Qs for Users vs. Non-Users

Online

Email invitation to 210 K-Teachers sent out by TechnoLink
METHODS

- **Common Questions**
  - Gender
  - Age, Experience
  - Number of Students
  - Self-Declared ICT-Competencies
  - Private Ownership & Uses of ICT
- **Professional Uses of ICT**
  - Good K-Teaching?
  - Paintbrush Game
Find the Odd-One-Out

Television
Computer
Paintbrush
SPECIFIC QUESTIONS:

- USERS
  - Preparation
  - Why?
  - Expected Effects
  - What for?
  - Apps
  - When & How? (Classroom Management)

- Subjects
  - Learning & Teaching Events (Leclercq & Poumay, 2005)
  - Documentation & Evaluation
  - How did you experience it?
  - Advantages & Changes
  - Satisfaction
  - Issues & Wishes
SPECIFIC QUESTIONS: NON-USERS

- Why not?
- Informed choice?
- Information from colleagues about their use of iPads?
- Conditions to eventually use them in the future?
- How would you prepare yourself?

Would you be willing to have a look at a colleague’s practice?

What for and how would you want to use them?

Expected effects and changes?
RESULTS

- Two portraits: users (n=63) vs. non-users (n=28)
- No claim to depict “reality”
- Qualitative analysis
- Exploring interesting patterns
- Basis for future research
### RESULTS

**Users (n = 63)**

- **Gender**: Large majority women (55/4/4)
- **Age / Experience**: average 42 yrs / 18 yrs
- **Number of Students**: average 13.8 children (range: 7-17)
- **Self-Declared ICT-Competencies**: above average
- **Private Ownership & Uses of ICT**: Smartphones & Laptops - Communication, News and Search Activities
- **Professional Uses of ICT**: Lookup Information, Lesson Plans, Learning Materials, Communication, Production of Worksheets - Very rare uses of ICT by children, Desktop & Photo camera used by teacher
- **Good K-Teaching**: Respecting interests of kids, developmentally appropriate, playful, interactive, based on sensory experiences, social, manipulation, fun, practical
- **Odd-One-Out**: Computer largely seen as a consumption device (like TV)
SPECIFIC QUESTIONS: USERS

Preparation: mainly trying out

Why? because available, nice change, motivation, easy to use, documenting by photo, audio & video

Expected Effects: kids enthusiasm, motivation, curiosity, learning to use iPads

When & How? (Classroom Management) during freeplay < guided activities (early morning), but rather rarely

Subjects: mostly math and languages

Learning & Teaching Events (Leclercq & Poumay, 2005): mostly exercising

Documentation & Evaluation: rarely, audio for speech

How did you experience it? kids were enthusiastic, motivated, but quarrels about who gets to use the iPads first, easy to handle

Advantages & Changes: easy to use, based on children's interests, fun, motivating, more concentration, more documentation, otherwise few changes in teaching practices

Satisfaction: Average

Issues & Wishes: Quarrels, Need for usage rules, need for training, addictive, not enough devices, appropriate apps, many “no issues” answers, more iPads
Non-Users (n = 28)

- **Gender:** only women (28)
- **Age / Experience:** average 37 yrs / 12,5 yrs
- **Number of Students:** average 13.9 children (range: 4-17)
- **Self-Declared ICT-Competencies:** above average
- **Private Ownership & Uses of ICT:** Smartphones, Desktops & Laptops - Communication, News and Search Activities
- **Professional Uses of ICT:** Lookup Information, Lesson Plans, Learning Materials, Communication, Production of Worksheets - Very rare uses of ICT by children & teachers, Photo camera sometimes used by teacher
- **Good K-Teaching:** active, motivating, playful, language & communication, social, child-appropriate, fun, learning by doing, movement-based, practical, manipulation, concrete, interactive
- **Odd-One-Out:** Computer largely seen as a consumption device (like TV)
SPECIFIC QUESTIONS: NON-USERS

Why not? enough media consumption at home, too young, other priorities, concrete experiences, social learning more important, forgot to use them, quarrels, too attractive

Informed choice? no intention to prepare for use of iPads

Information from colleagues about their use of iPads? No, or still not interested

Conditions to eventually use them in the future? Nothing seems to convince them

How would you prepare yourself? Try out myself

Would you be willing to have a look at a colleague’s practice? not really

Expected effects and changes? Children would learn to use the tools, motivation, documentation, hope to be able to use in meaningful ways
Majority of respondents did **try the iPads**

Children were **happy** about it. Too much?

Most did **not extensively use** them; lack of training? other priorities?

It’s not enough to put out the device; **ecosystem** must be favorable to its spreading (Zhao & Frank, 2003).

Some discovered them as **speech documentation tools**

Many commonalities between those who used the iPads and those who did **not**: similar beliefs about good teaching in Kindergarten, see computers as TVs, not heavy users of EdTech in general

**Non-Users**: stronger anti-media consumption position? Importance of teacher pedagogical beliefs (Ertmer, 2005)

**Future Research**: Deeper Insights via Interviews & Observations
THANK YOU FOR YOUR ATTENTION!

robert.reuter@uni.lu