The use of iPads in Kindergarten: An exploratory survey study Robert A.P. REUTER & Gilbert BUSANA University of Luxembourg

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- 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

INTRODUCTION



- 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



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

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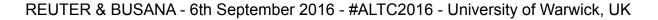
- <u>SPECIFIC QUESTIONS:</u> <u>USERS</u>
 - Preparation
 - Why?
 - Expected Effects
 - What for?
 - Apps
 - When & How? (Classroom Management)

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



- <u>SPECIFIC QUESTIONS: NON-</u> <u>USERS</u>
 - 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?



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- 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



<u>Users (n = 63)</u>

- 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

RESULTS



<u>Non-Users (n = 28)</u>

- 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, childappropriate, fun, learning by doing, movement-based, practical, manipulation, concrete, interactive
- Odd-One-Out: Computer largely seen as a consumption device (like TV)



<u>SPECIFIC QUESTIONS: NON-</u> <u>USERS</u>

- 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

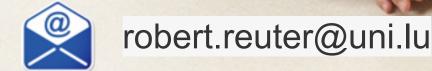
- Conditions to eventually use them in the future? Nothing seems to convince them
- How would you prepare yourself? Try out myself
- Would you be willing to have a look at a colleague's practice? not really
- Expected effects and changes? Children would learn to use the tools, motivation, documentation, hope to be able to use in meaningful ways

DISCUSSION



- 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 believes 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 pedagogial beliefs (Ertmer, 2005)
- Future Research: Deeper Insights via Interviews & Observations

THANK YOU FOR YOUR ATTENTION!





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