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Learning Situations – Learning and the Use of Mobile Technology from a Learners Perspective

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Abstract. What is learning from the learners’ point of view and how does this relate to the use of mobile technology? Young learners (6-14 years old) created own photos of learning situations, which served as premise in a qualitative research approach. Explorative conversations and photo-based group interviews were used as methods. Inspired by the methods Stimulated Recall and Photo Eliciting, a total of 283 photos were taken by the learners including 21 group interviews generated individual statements and utterances from 207 pupils in Scandinavian schools (K-9). The authors are especially interested in discussing the methodology, a section that could be seen as fairly unorthodox in some research communities, since this workshop paper contributes with awareness and discussion about research methods in which young people have an important role as co-producers of knowledge.

Keywords. Tablets, Learners, Qualitative data, Photo eliciting, Schools, Learning situations

Introduction

The launch of tablets in schools and higher education has rapidly increased. Studies (e.g., [8], [5]) illustrate the raise of the tablets in formal education and often do analyse learning from a teacher perspective, a didactical design view or the institutional strategies are in the centre of the evaluation. The pupils, students and children’s perspective is often missing or at least it has been neglecting and has not taken into consideration in the same value like the other aspects. We argue, when education claims that there is a shift from teaching to learning [1], then the learners perspective on teaching and learning is also important. The shift towards more learner-centred concepts for teaching and learning means that the students learn to be responsible for their own learning and become self-organized pro-sumers and creators instead of being just consumers.

In this Workshop paper we present the research project Learning situation from the learners’ perspective in schools in a Scandinavian municipality. The unique approach in this municipality is that all pupils got tablets launched in 2012 in a 1:1 tablet program (one tablet per child).
Description of the study and methods

The empirical study is conducted in a municipality with app. 22,000 inhabitants in a Scandinavian country with 7 schools from preschool class to grade 9, and has around 170 teachers and 2,000 pupils aged 6-16. The schools launched tablets for all teachers and students in January 2012. The community decided to buy iPads. The research study is part of a bigger research project that aims to study the implementation of tablets in all schools of the municipality. This study focuses on the learners’ perspectives and will later serve as one part in the upcoming triangulation with the teacher perspectives of digital didactical designs [7]. In the end, the objective is to bring more knowledge to the design of teaching and learning in a tablet rich environment.

The methodology of this research puts learning in first place through the study object of learning situations. The aim is to get a deeper understanding of learning in a tablet rich environment with a two-step research design of first understanding how children understand learning and then to relate it to the use of tablets without asking explicitly about the technology. The study on learning situations was initiated to make the learners voice heard. The study was presented in meetings with teachers and school leaders, which led to 24 teachers that signed up, interested to participate; voluntarily sampling [2]. Finally, 11 teachers and 11 classes participated.

The data have been collected through specific forms of interviews. The unique approach is that the learners took own photos of learning situations, marked them with a word or a short sentence, and those pictures served as starting point for the interviews. The pictures and the utterances from the learners are the units of the analysis and which have been used to understand the learners’ descriptions of ‘what learning is’ in general and in relation to the use of tablets.

Methods in detail – preparation of the interviews (phase 1)

To study the learner’s perspective, the research team used a mix of methods inspired by Stimulated Recall [6] and Photo Eliciting [3]. The study followed two phases – a preparation-phase and a classroom-phase. In the first phase (preparation), the children were encouraged to take a photo of a learning situation and then labelled it with one word that they found appropriate for the picture. This took place, from Oct-Nov 2013. The instructions to the children asked about a learning situation that could be situated in school or in any other context. The fact that the learners could take photos in a school or non-school context gave the researchers the insight that the learners’ perspective
includes both a) the school context and b) the non-school context. A child doesn’t have the primary identity of a student or pupil outside of school but can be seen as a learner in both school and non-school learning settings, therefore we use the terms learners or children.

The pictures were finally collected in the classes in Dec. 2013, presented on a poster or presented one by one. The classes usually made one photo per child. One class made one poster per child (called the Poster classroom) with several pictures on each poster that were labelled with a specific word or sentence connected to each picture. Despite the fact that different teachers made small adjustments to the format of the project, the overall purpose with the creation of pictures was still reached: The photos and pictures served as starting points in the discussions and interviews with the children about “what is learning for you?”

The choice to use self-produced photos was made due to multiple reasons. Firstly, the picture acts as an artefact for researchers and children to unite around and as a start of the interviews. This was considered to be important, especially since the children were between 7 to 13 years old.

Secondly, and more important, we assumed that the self-produced pictures act as a door opener to children’s learning independently where learning takes place. We did not want to limit the learning situation to the school or media tablet context only.

This way of conducting the research argues that the method used is strongly related to the method of Photo Eliciting because a) the children have produced the photos themselves and b) they created photos and pictures (not film).

When the children had done the first part of taking photos and labelled them with a word, the pictures were sent to the researchers. The researchers started with an initial analyse of the pictures as a kind of preparation before visiting the classes and as a ground for reflecting the questions for the interviews.

**Data collection within the classrooms (phase 2)**

The second phase started when two researchers visited the classes and collected data through three kinds of interviews.

One of the interview forms was explorative conversation, developed from explorative interviews [9], which include the fact that the interviews could not be fully structured or planned. One or two teachers were present in each classroom. The teachers’ role was to create a trust-based study situation. Focus group interviews [10] were conducted in a separate room with 6 students at a time. They aimed at giving a broader picture of the learning situations since the students had already given the background in most cases in the explorative conversations in the classrooms. Finally, Photo-interviews where conducted with the children from the Poster classroom. The children formed groups of three and everyone had made a poster of their own with 4-8 pictures that showed different situations of learning from their point of view.

All interviews were based on an interview schedule for semi-structured interviews [4]. The method of combining interview questions and photos as a starting point was inspired by Cappello [3]. In general, the interviews started with an open approach by
asking for example, “Can you tell what the image shows?” or “What made you pick this image in relation to learning?”

The interview guide focused on the understanding of learning from the children’s view, especially how they described their images about good learning situations to the researchers. The findings are presented below where the learners tell about their learning. Usually, two audio recording devices were used to record the conversations and interviews. The quotes in this paper are translations from the Scandinavian learners utterances into English.

The interview guide focused on learning situations and not on technology. It is important that in the main section of the interview, the researchers were cautious not to point out a specific direction and especially not towards the direction of how the media tablets do relate to learning. The researchers did not ask about the relation of learning to the media tablet. This was important since the whole idea of looking into learning situations was designed in such way that we did not want to put the media tablet in focus first, instead, learning was supposed to be in the first place. With this as a background, the findings of the relation between the media tablet use and learning is firstly met from the perspective of learning and not from the perspective of technology. The researchers argue that this approach strengthens the validity of the data that describe the actual use of mobile technology in classrooms when we don’t ask for it explicitly.

Empowering teachers as designers

This research generates data in form of quotes or utterances from learners in the municipality. This data can be used in a multiple ways where researchers suggest an approach that first of all informs the teachers on how to design teaching and learning in a tablet learning culture. In addition the use of the technology from the learners’ point of view does also reveal patterns of use when it comes to where, when and in what kind of situations the mobile technology is used. With this in mind the authors raise the question; what is the perceived value of this research methodology when it comes to empower the teachers as designers? And even more relevant; when different teachers may have different understandings of teaching, how do the teachers react on the childrens’ understandings of what learning is?

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