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The “Auricle” as an Artificial Listener: A four country study on the Pupil’s Experiences During School Lessons

Auricles are ear-shaped material objects made of silicone rubber with a built-in MP3-player one can put on and off without changing the shape of the auricle. The MP3-players are equipped with an integrated microphone, line-in recording, USB 2.0. They will serve as instruments for research in a class of 6-7 year olds and of their teacher for the period of one week. Each child and teacher will be given an Auricle, to use it as a confidential listening device in the classroom.

The project will take place at 4 schools and countries, in the UK (Sheffield), Sweden (Växjö), Turkey (Nevşehir) and Germany (Stuttgart). The study is a follow-up study as the Auricles have been used in the years 2006-2008 for 14 years old in four other countries in Germany (Stuttgart and Berlin), Bulgaria (Sofia), Finland (Vaasa) and Argentina (Neuquen). There are several publications on different topics (like learning strategies, habitus, suffering in classroom lessons).

As a material object the Auricle enables researchers to track the use, movement and interaction with the object over time. In taking forward participatory approaches which seek to access children’s voices, the Auricle deepen understandings of gender, embodiment, belonging, in- and exclusion and identity construction in classroom interactions and patterns. It enables accounts to be made of what matters to children, from a child’s perspective. What goes on in classrooms is entangled with what does on in playgrounds, journeys to school, the home, and life around the home. We will also analyse how attentive practices may be enhanced through children’s interaction with the material object.

In short, new methodological avenues for empirical research to explore the interface and entanglement of humans, non-human materialities, and spaces are opened up (cp. Taylor).

In the following I will unfold methodological references, such as the tacit dimensions of pedagogy-perspective, the research on young people and social media and the “thinking aloud method”.
**Tacit Dimensions of Classroom Education**

Collected are “subtexts of a school lesson” (cf. Kraus 2006), respectively comments students make to themselves during regular classroom lessons. In previous studies it became clear that the subtexts are to a great extent withdrawn from school reality.

In terms of the analysis, the concept of subtexts of a school lesson is closely tied to the concept of implicit or tacit knowledge. The implicit or tacit knowledge concept, first coined by the Hungarian chemist and science philosopher Michael W. Polanyi in the early 1950ies, describes practical knowing; more precise, experienced, skilled and virtuous components of the knowledge of individuals partly constituting their knowing-in-action. However, Polanyi´s notion of the implicit is not limited to bodily performances but it also includes aspects of theoretical knowledge; “we can know more than we can tell” is one of Polanyi´s core conclusions. There are similar theoretical approaches to practical knowledge, more or less contemporaneous to Polanyi´s, such as Gilbert Ryle´s distinction between “knowing how” and “knowing that”, Pierre Bourdieu´s notion of the “habitus”; “intuition” described for instance by Henri Bergson, or, Marcel Mauss´s “techniques of the body”. Besides that, the tacit knowing approaches also enclose the notion of “experiencedness” (Ludwik Fleck) and “conjunctive experiential spaces” (Mannheim).

The implicit or tacit knowledge concept is thus very heterogeneous. A handbook on this topic in German is in print.

Accordingly, tacit knowledge, on the one hand, is opposed to formal, codified or explicit knowledge, readily articulated, codified, verbalized and accessed. In this regard it appears at the right opposite of school knowledge. On the other hand, implicit knowledge is connected to crucial factors for (also formal) learning like interpersonal relationships, corporal dispositions and to the experiental ground for learning. However, implicit knowledge is not thematized in the classroom. It moreover forms hidden aspects of formal learning, concerning the not consciously intended transmission of norms, values, and beliefs as a side effect of education and learning. Philip W. Jackson´s (1968) “hidden curriculum” describes tacit aspects of teaching and didactics. However, there is no fitting equivalent concept for the side of the pupils yet, that is to say, for their
habit, social relations and corporal dispositions etc. conveyed in the classroom and significantly influencing their learning. The students may utter tacit aspects of their learning in messages to their classmates, in nonverbal signs and attitudes. In each subtext of a school lesson spoken into an Auricle some of these aspects become clear as attentive practices in the “flow and flux of classroom interactions and patterns through the voices of children” (cp. Taylor).

**Research on Young People and Social Media and the “Thinking Aloud Method”**

Whereas today there is an enormous and even booming volume of technologically determinist research on digital media- and technology-based learning, only recently research on the inter-psychic as well as on the interpersonal processes of communicating, commending, sharing as well as designing and editing of digital media technologies has been initiated. (Cf. Livingstone 2009) Within this field, the research on virtual communication, on creative activities and on forms of disruption such as “cyberbullying”, that was a topic mostly of Psychiatry and Psychology (cf. Hay et al. 2010, Ryo et al. 2014), only slowly reaches Educational Research. The fast, widespread and development of digital technologies did not only change life all over the world, such as since the spread of the internet and the rise of mobile phone ownership today more social entrepreneurs, already in a young age, are succeeding outside the traditional development system. The young people are also surrounded by media right from the birth and they extensively use it in many different ways.

However, we regard it as a rather short-circuited consequence that the adolescents are widely regarded as “competent” users of, and even as pioneers in using digital media, (cf. Carlsson 2010, Livingstone & Bovill 2001, et al.) that can be used in school by using computers as a source of information and for ICT-enhanced learning. Recent research shows not least that the basic idea of a possibility to promote self-expression and social participation of adolescents by the use of digital media is not beyond critique: The practical-empirical reading of the idea of supporting the self-expression and social participation of adolescents with digital media undermines its credibility as these technologies obviously also entail risks on many levels (cyberbullying, hacking attacks and also poor
concentration, inattentiveness etc.). In educational contexts there are
challenges like that of adapting media didactics to new technical
developments, instead of mere consumption developing agency,
participation and competences (e.g. reading) via network computer
systems, and the prevention of abuse. One should thus neither generalize
the media usage behavior of adolescents at hand nor just uncritically stick
to the wishful thinking connected to it. In educational regards, the
question is, whether and how virtual media provide adolescents with
possibilities to communicate their perspectives on their life-worlds and
improve their learning, especially their ICT-enhanced learning at school,
or might hinder it.

Young people are used to express themselves orally via technologies and
to save it. In our case they do it via Auricles.

One gets data of thinking processes via speech that resembles those of the
“think-aloud method” that was developed in the 1960s. The “think-aloud
method” was applied in the empiric school research in the last years and
decades, to be able to find out how students solve problems of exercises
or tasks – above all in science lessons. “Thinking aloud” also has a
history of being used in didactics of German linguistics, and here: literacy
research.

The method offers the advantage that the researcher gets access to the
personal life, to the experiences as well as the thoughts of informants in
an unfiltered way. As they are neither participants nor actors in the field
purposefully gathering material such as one does e.g. in an interview, (cf.
Heinzel 2012) there is immediacy and closeness to the experiences of the
informants.

In the focus of our investigations is the question of attentive practices of
young people, How do children use new auditive materials in school as
portable devices to comment on their school life. The results will lead to
the question whether and how it can be seen in educational regards.

**Analysis**

The raw materials will be transcribed and are to be analysed via the
method of Grounded Theory (cf. Strauss) in terms of the usage of the
auricles e.g. duration and/or intensity of usage, topics mentioned in the
classrooms in England, Sweden, Germany and Turkey. Are there any
differences in the usage of the auricles? What are the pupils’
constructions of and attitude about lessons and school. Is there a relation/correlation of pupils’ statements about teaching, lessons, education and the very school profiles and developments in the educational sector?