

# Chapter 79

## ‘Talking Tools’: Sloyd Processes Become Multimodal Stories with Smartphone Documentation

**Annika Wiklund-Engblom**  
Åbo Akademi University, Finland

**Juha Hartvik**  
Åbo Akademi University, Finland

**Kasper Hiltunen**  
Åbo Akademi University, Finland

**Mia Porko-Hudd**  
Åbo Akademi University, Finland

**Marléne Johansson**  
Åbo Akademi University, Finland

### ABSTRACT

*The study presented is part of a work-in-progress project of developing a mobile application for smartphones, Talking Tools (TT). The first context TT is developed for and tested in is sloyd education [Swedish: slöjd], a compulsory subject taught in Finnish schools. In sloyd learners design and manufacture unique artifacts in various materials (textiles, wood, metal, and electronics). The process-based work flow of sloyd lends itself well to this kind of educational tool, which aids multimodal documentation, communication, and instruction. The empirical study targets what student teachers (N=11) microblogged about and the character of the blog posts during a sloyd project. A sociocultural perspective of appropriating new tools for learning is used as a theoretical frame, as well as views on multimodality and transmedia. Their sloyd process is discussed in terms of transmedia storybuilding, as learners build their own story as a flow of content through their documentation and interactions.*

### INTRODUCTION

Smartphones are found in the pocket of nearly every learner in Finland today. This is an untapped educational resource that could be exploited for the purpose of learning and teaching (Ilomäki, 2012). The business model of the telecom industry in

Finland further allows for affordable smartphone data plans, which is critical for schools to be able to justify the use of mobile phones from a democratic perspective, but also having the financial possibility to supply phones to those who cannot afford it themselves.

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This article presents a pilot study on a mobile application for smartphones, Talking Tools (TT), which aims at utilizing the above mentioned untapped resource by turning smartphones into learning tools with an explicit educational purpose. Developing TT is a collaborative project between sloyd education researchers, transmedia developers, user experience experts, and educational technology researchers at Åbo Akademi University, Finland, as well as software developers and coding experts at UpCode Ltd., a software company specialized in developing reading and scanning solutions for smartphones.

The pilot study of the application targets student teachers’ documentation using TT. The aim is to explore *what* they chose to document in this multimodal environment. Multimodal documentation can enable transmedia storybuilding, in which the flow of dynamic content facilitates learning and allows for participation. It supports both independent and collaborative learning and allows for flexible information access, communication, and documentation (cf. Naidu, 2008). Being a learner in a multimodal blended learning environment entails both consuming and creating one’s own content using a number of media sources and tools (Kress, 2003, 2010; Kress & van Leeuwen, 1996/2006; Säljö, 2012). Kress and van Leeuwen (1996/2006) have established a theory of multimodality offering concepts to analyse and understand the interplay between culture, situation and multimodality. The research aims and questions of the present study are discussed within a sociocultural framework of learning (Säljö, 2005; Vygotsky, 1978, 1986) including perspectives on multimodality and transmedia learning.

## **CONTEXT**

In the Nordic countries, sloyd is a common free time activity in society, as well as an activity in educational contexts (Johansson & Lindfors, 2008; Nygren-Landgärds, 2003). The word sloyd

etymologically stems from the old Swedish word *slöghb*, which stands for shrewdness, diligence, skilfulness and smartness, and the word *slögher*, denoting characteristics such as being handy, being deft, having professional skills, being skilful, experienced, and resourceful (Svenska Akademiens ordbok, 1981). Kojonkoski-Rännäli (1995) discusses the phenomenon of sloyd through analysing the words ‘hand’ and ‘work’ that form the Finnish word for sloyd, *käsityö*. The word ‘hand’ shows that the materials used in sloyd are concrete and tangible. In working the material, you use your hands, body and various tools. The concept of ‘work’ shows that the actor is a human being and that the work that is realized is a result of planning and modelling.

Sloyd as a core subject was established in Finland in connection with the introduction of Folk schools in the 1860s (Nurmi, 1979). Educational sloyd was, from the outset, tasked with objectives that resided outside the concrete making and practice of everyday sloyd (Peltonen, 1998). The sloyd class is learner-centred and allows everyone to work from their own ability and motivation in creating artefacts within a predefined educational and curricular frame.

The sloyd educational theory of learners’ sloyd process emphasizes the learner’s ability to carry out a ‘whole’ sloyd process from idea to finished product. The process involves phases of *planning*, *planning of manufacturing*, and *manufacturing and evaluation* (Lindfors, 1991). Learners are given the opportunity to define their idea, plan their work and carry out their plans, observe the consequences of their activities and evaluate the different stages of the work as a whole (Pöllänen & Kröger, 2006). Making a sloyd artefact takes time and the work usually stretches over several lessons. Lindström (2009) describes educational sloyd as a subject in which the learner learns *about*, *in*, *with* and *through* sloyd. The objectives of the activity can be dealing with materials and techniques (*about*), experimenting to achieve a certain effect or mood (*in*), supporting knowledge

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