Text and Language Practices in One-to-one Environments in a Swedish Primary School

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Abstract. Recent investments in schools in Sweden focus on increased availability of technology and ways to incorporate digital media in the classroom. Via the computer screen, students are involved in a new type of writing and communication culture that allows for new approaches in literacy instruction and learning (Lorentzen & Smidt, 2010). The purpose of the present study was to investigate how the availability and every day access to technology in a one-to-one laptop programme in primary school impact on text and language practices. The objective was to explore what text genres the students meet and what artefacts they use to facilitate their work, the modalities they engage in and if they work on their own or in collaboration. Also, what new demands are put on the instruction. The empirical results are based on classroom observations of a sample of lectures in two classes in year three and two classes in year five where the students had been using computers for about 2.5 years. In both year three and five the students expressed great enthusiasm for the work on computers. Narrative and expository strategies were prominent in the development of text and language competencies. New practices facilitating multimodal and digital expression occurred more on the students' own initiative. The activities in year three provided opportunities for both individual and collaborative work, whereas year five mainly did individual work. The assignments in both years were mostly designed to result in products of the same type and were published on their computers for a restricted audience. We interpret these practices as being mainly teacher-controlled and for the benefit of the teacher and fellow classmates. This stands in contrast to previous analyses on changes in literacy processes in laptop classes that report on more student autonomous and public uses (e.g., Warschauer, 2008).

Keywords: one-to-one classroom, primary school, text competencies, language practices, multimodal analysis.

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1. Introduction

Investments in laptop computers in schools are increasing, despite the high costs, raising questions about the best ways to incorporate technology into the curriculum (Devaney, 2009). The largest and earliest initiatives have been reported from the U.S., where whole states were equipped with laptop computers (Silvernail, 2004). The research results are generally positive and several studies report on significant gains in student engagement and motivation for learning, writing competency, and critical thinking (Suhr, Hernandez, Grimes, & Warschauer, 2010). An increased use of technology in the classroom and in the home has also been reported (Keengwe, Schnellert, & Mills, 2012; Zucker & McGhee, 2005). Students participate in more authentic and diverse literacy activities with increased opportunities for scaffolding and feedback (Penuel et al., 2001; Warschauer, 2008). Some of the holdbacks are the preparation time for learning new technology, poor administrative support and perceiving computers as a competitive or disruptive distraction (Dunleavy, Dexter, & Heinecke, 2007; Zucker & McGhee, 2005). In Sweden, similar results have been reported regarding motivation for schoolwork and changes towards thematic, subject-integrated and more learner-centered instruction (Tallvid, 2010). Initial results from the ongoing study *Unosuno* of several laptop programmes in Sweden show evidence of more individualized work and also a focus on presentation rather than content (Grönlund et al., 2011). There is also an on-going discussion on the relationship between the knowledge required for standardized tests and what is taught in laptop-enhanced instruction (OECD, 2010; Pedró, 2007; Warschauer, 2008).

Our study complements this research investigating *long-term* impact (i.e., not implementation) of a one-to-one laptop programme on text and language practices for *primary level students*. At the time of our study, the two classes in year three and two classes in year five had been using the computers for about 2.5 years. The objective of the study was to explore and map the text genres the students meet, the modalities they engage in and the artefacts (digital or not) they use. The instructional approaches and collaborative impacts are also reported upon.

In the following, the method will be presented and then followed by analyses of teaching design, text genre and modes, resources and artefacts and collaborative impact.

2. Method

The empirical results are based on a sample of 11 classroom observations (10 hours) in year 3 and on 10 occasions (13 hours) in year 5 during a term. For year 3, the sample includes lessons on Writers Workshop, ancient times, dinosaurs, formal training of spelling, reading comprehension, note-taking in a school diary and free work. The sample from year 5 concerns lessons on activities related to The Famous Person Project, textbook work and World Spelling Day.

The analyses of text and language practices are based on theories of school genres (Knapp & Watkins, 1994; Liberg, af Geijerstam, & Wiksten Folkeryd, 2011) and a multimodal analysis in a socio-cultural context (Jewitt, 2008; Purcell-Gates, Perry, & Briseño, 2008). The variables include *text genre* defined as the purpose of the text, *text form* as how the text is realized, *resources* used and *collaborative impact*. The instructional design is also reflected upon based on the observations.

3. Text and language practices in year 3 and 5

3.1. Teaching design

In year 3, lessons were in general organized according to a model of *mini-lessons* based on *Units of Study for Teaching Writing* (Calkins, 1994). A mini-lesson began by explaining the aim of the lesson and how to proceed to fulfill that aim. The students were then encouraged to try themselves or together with their "writing partner". Then the students were sent off to work on their own or in pairs to be reassembled at the end for feedback and further planning.

The lessons in year 5 usually began with a teacher-led warm-up activity. The agenda of the lesson was then explained and instructions written on the board. The teacher would move around in the classroom and the other areas where the students were seated in order to help them. At the end of the lesson, the teacher would typically reassemble the students, sometimes providing them with feedback on their work.

3.2. Text genres and modes

The students in year 3 wrote narrative texts in descriptions and introductions to their text. These activities concerned the writing and revising of a text and reading out loud. Students compared the number of words in their texts, fonts and backgrounds, added links to webpages and sent their texts to the teacher. They also met narratives during reading and in reading comprehension exercises. Expository texts appeared in a variety of text forms. Students collected facts and images in textbooks and on webpages. They organized facts on post-it notes and in mind maps on the computer and reported facts in several formats: as a slideshow presentation, a manuscript and an animation. They also watched a film about dinosaurs.

Furthermore, they produced lists of words for spelling practice, of facts and contacts for their account on the learning platform. They sent instant messages to each other in the classroom, uploaded pictures of themselves and communicated via Skype. During their free work, many students enjoyed taking pictures of themselves for slideshows and desktop backgrounds. Others composed posters, wrote narratives formed as presentations, created musical pieces, edited previously created films and slideshows or played games on-line.

The students in year 5 encountered narrative texts both in their textbooks and on the computer. They also read and listened to narrative texts in easy to read novels. They

did exercises both on paper and digitally, e.g., reading comprehension and dictation, based on narrative texts. Some also wrote narrative texts on their computers and those who did carefully chose fonts and size for their text. Upon finishing, they sent the texts to the teacher.

Some of the texts in the students' textbooks were expository. They worked with them in a similar manner as explained above. When working on the Famous Person Project they read expository texts on the Internet and wrote their chosen facts down in a word processing program. Then they composed an expository text of their own to be presented in a slideshow. To accompany their text they also recorded their own voices reading the text. One student filmed herself while talking, thus providing her slideshow with a visual narrator.

When working on the Famous Person Project, the students also worked with pictures. They watched Youtube clips when gathering information and they collected images from the Internet to paste in their slideshows. Many students spent as much, or more, time on editing pictures as gathering data and writing. Many students also listened to music on Spotify while working.

3.3. Resources and artefacts

Concerning digital and non-digital activities, the 3rd graders read, did spelling exercises, took notes and collected facts without the use of a computer. Activities that occurred with the help of computers concerned writing down facts from textbooks, making a faircopy from a handwritten draft and reading text projected on the screen. On the Internet, the students collected facts and images, wrote instant messages, watched films, played games and communicated via Skype. On the computer they mostly wrote in a word editor, created presentations and mind maps.

The students in year 5 did not use their computers when working with the non-digital workbook, reading dialogues or novels. The remaining work observed during lessons was however done with the aid of a computer. This involved collecting facts and pictures from the Internet for a slideshow, and doing exercises in their digital workbook.

3.4. Collaborative impact

While the activities in year 3 were both individual and collaborative, the activities in year 5 were mainly individual. However, assignments involving computer work tended to be individual in both years.

4. Discussion and conclusions

The study demonstrates that the narrative and expository texts dominated in both years with the latter including more diverse text formats and modes. In year 3, lists and instant messaging also occurred. Genres and modes varied more on the students' initiative

in both years. The activities in year 3 provided opportunities for both individual and collaborative work supported both by digital and non-digital resources. The activities in year 5 were mainly individual, especially concerning digital work. Concerning the instructional approach, explicit modelling was the main objective in the development of text and language competencies while in year 3 and in year 5 it was more project-based.

In conclusion, the traditional genres were in these classes accompanied by some new practices facilitating multimodal and digital expression with more individualized work for the older students in year 5. Assignments in both years were mostly designed to result in products of the same type and published on computers for a restricted audience. We interpret these practices as being mainly teacher-controlled and for the benefit of the teacher and fellow classmates. This is in contrast to previous analysis on changes in literacy processes in laptop classes that report on more student autonomous and public uses (e.g., Warschauer, 2008).

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