Talking about the Good Childhood

An Analysis of Educators' Approaches to School Children's Use of ICT1

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This paper presents a study on how primary school educators describe children's use of ICT. This is done in order to lay a foundation for an understanding of how information literacies may be enacted in Swedish primary schools. The empirical material consists of four focus group conversations conducted with 20 educators at three Swedish primary schools. The analysis is focussed on how the educators discuss and describe ICT as tools for information activities and as parts of children's childhoods. Two descriptions of childhoods are identified in the analysis: 1) the good childhood, in which there is room for traditional tools for information seeking such as books; 2) the contemporary and insufficient childhood, happening outside the school context, where digital tools for information seeking and other activities are used. The task of primary school is described as counterbalancing contemporary childhoods and therefore avoiding ICT. The authors discuss how the implications of these approaches could be limiting for how information literacies may be enacted in primary school.

Keywords: ICT, primary school, children, information literacies, information seeking, focus groups

The background of the study presented in this paper is twofold. Firstly, during the past decades ways of teaching have changed in Swedish compulsory schools. Traditional teaching-centred teaching methods have in part been replaced with working methods where pupils work independently on projects within different domains. These methods include the pupils' own information seeking and use. Secondly, the conditions for these ways of working have changed quite dramatically through the implementation of digital media and information and communication technologies (ICT) in Swedish schools, as well as in the rest of society.

In this article, we will present some of the findings from a research project on information literacies that was conducted at three Swedish primary schools. With a starting point in the pedagogical and technological changes of the past decades we will present a study of how primary school educators talk about children's ICT use, especially as tools for information activities, but also for other purposes. As we see it, the ways in which ICT is described have implications for how information activities take place and how information literacies are enacted in primary school.

We concur in the view that information literacies differ between different social practices (e.g. Lloyd 2007; Sundin 2008; Tuominen, Savolainen & Talja 2005) and we find that it is reasonable to assume that information literacies in primary school, at least to some extent, are enacted differently to information literacies in the later school years. One reason for the differences is the focus on children's literacies in most school activities during the first years of school.

As Säljö (2005) discusses, literacies today include not only the ability to decode text and basic writing skills, but also the mastering of a whole range of activities such as information seeking, selecting, sharing, producing and organising – both in electronic and print-based environments. This does not mean that information activities have been of less importance in previous historical eras, but rather that written language has become more important for many information activities in contemporary

society. In parallel with these changes, however, we can also see that other semiotic means are becoming increasingly important which has led to an emphasis on visual and multimodal literacies (Jewitt 2006; 2009). Taken together, these changes mean that the expectations placed on reading and writing skills today include abilities to manage a variety of genres, formats and modes. One could also say that the literacies requirements of many of today's societies include information literacies (cf. Andersen 2006).

One might assume that these renewed understandings of literacies, which are connected to changes within the ICT landscape, would have implications for activities in primary school as they are often oriented towards children's literacies. However, earlier research suggests that the uptake and introduction of ICT in Swedish schools has been a complicated process and that working methods have not changed as much or in ways as one might think.

Discourses on Children and ICT

The basis for this study is a conception that primary school educators' approaches to ICT might have implications for the enactment of information literacies within the institution of primary school. For this reason, our analytical focus lies on how educators discuss and describe ICT mainly as a tool for information activities, such as information seeking, and children's abilities and possibilities to use these tools.

With a few exceptions such as Enochsson (2005), most studies of ICT-based information seeking in educational settings have focussed on secondary school and university level students (Abbas 2010, 931; Case 2007, 301f; Large 2005). However, on a more general level, much has been written on the topic of the introduction of ICT in schools. In a Swedish context, several studies depict the introduction of new ICT in public schools as a complex process which has not always been embraced by teachers and other educators (e.g. Karlsohn 2009; Karlsson 2004; Centrum för Marknadsanalys CMA 2003). For example, in his analysis of the rhetoric around ICT in the two major Swedish professional journals

for teachers during the 1990s, which was a period of expansion in terms of the computerisation of Swedish schools, Thomas Karlsohn (2009) discerns a techno-deterministic approach. This approach includes a portrayal of teachers as unwilling to engage in a seemingly inevitable change and therefore in need of being convinced of the blessings of ICT. In the material analysed ICT is rarely discussed in a critical way, but mainly described in an overly optimistic tone.

This kind of techno-determinist approach has been described previously in both educational science (e.g. Qvarsell 1988) and media studies (Buckingham 2000) in relation to the introduction of ICT in children's lives; these studies have shown that approaches to children's ICT use have included both scepticism and praise, often in a black and white manner; ICT has either been described as dangerous, threatening and harmful for children, or as empowering, necessary and solely positive. In the present study we are starting from a view where ICT is not seen as inherently good or bad, but as socially negotiated within specific settings. However, we should not disguise the fact that we do subscribe to a view of contemporary Swedish society as a society where it is useful to have a basic knowledge of how ICT can be used for various information activities.

Empirical Setting

The empirical material analysed in this article was collected in a larger project conducted at three Swedish primary schools in the years of 2005, 2006 and 2008. Ten forms with children in preschool class², first and second grade participated in this larger project which included interviews with educators and children, as well as observations of activities in classrooms and school libraries.

The material in focus for this article consists of four focus group conversations carried out at the three schools in 2005 and 2006 with staff that had pedagogical roles in relation to the pupil's ICT use and information seeking. In total nine primary school teachers, six preschool teachers, three

leisure-time pedagogues³ and two librarians participated in the discussions. The participants as a group are referred to as *educators*.

The focus groups were led by a moderator⁴ and were facilitated by a so-called stimulus material where various aspects identified in earlier research of ICT use, information seeking and project-based working methods were formulated. The dialogue in the focus groups was recorded and later transcribed in a way where spoken language was adjusted to conventions of written language. The transcription process was supported by notes on speaker order made by a researcher or an appointed undergraduate student who observed the focus groups⁵. The quotes used in this paper have been translated to English from Swedish. The participants have been anonymised and are referred to by job title (teacher, preschool teacher, leisure-time pedagogue, and librarian) and focus group (A–D).

Theoretical and Methodological Framework

In order to discuss approaches to ICT as they are manifested in dialogues between educators we base this study on a sociocultural perspective (Säljö 2000 & 2005; Linell 2009; Wertsch 1998). From this perspective information activities, in which information literacies are enacted, are seen as social and discursive and involving the use of different cultural tools, including formal information systems and documents as well as communication through the use of spoken language (Sundin 2008).

Furthermore, the use of a specific tool for information seeking is (as the use of any cultural tool) partly shaped by how the tool is given meaning in the setting where it is used. We assume that in specific settings possibilities and constraints are ascribed to different tools for information seeking which have implications for how they can and may be used (Wertsch 1998, 38ff; Säljö 2000, 115). As we see it, educators' ways of talking about and describing tools for information seeking have implications for how these tools are understood and used in classrooms and school libraries.

A research tradition that has been helpful in gaining insights into how ICT is understood in relation to primary school children is that of the New Sociology of Childhood (e.g. James, Jenks & Prout 1998). One of the key ideas within this research tradition is that of the concept of childhood as historically, socially and culturally constructed. This means that understandings of what childhood is and should be vary between different contexts. Furthermore, the ways in which childhood is understood and described in a society also forms the conditions for real children's childhoods (cf. Buckingham 2000, 6ff.; Mayall 2000, 120). For example, ideas of children as either *becoming* or *being*, that is, as immature and in the need of protection or as competent in themselves can form the basis for how institutions for children are shaped. As we seek to understand how ICT is understood as a tool for children's information seeking in Swedish primary schools we are particularly interested in how these tools are seen as appropriate or inappropriate elements of children's childhoods. These approaches, we suggest, may have implications for how information literacies can be enacted in the early school years.

The analysis is carried out on a discursive level, the unit of analysis being 'the dialogue of ideas' of four focus group discussions (Marková *et al.* 2007, 132f; Linell 2009, 128). The views of ICT expressed in the focus group conversations include ideas on what school activities should include or not and thereby what the desirable and undesirable ways of acting may be in the specific activities described. The situated expectations that are expressed in the discussions partly shape what in this setting is seen as accepted and expected ways of using ICT, and as it turns out, other tools for information seeking.

Our analysis is focussed on the contents of the discussions rather than interactional patterns such as turn-takings. Still, it has to be noted that the results of our analysis should be seen as ideas that have emerged in interaction, rather than as predefined messages and opinions delivered one by one by single individuals. Furthermore, we must remember that focus groups as such are activities in themselves which differ from the daily activities in the three schools. (cf. Marková *et al.* 2007). The relationship between the ideas expressed in the conversations and other activities

taking place in the school setting cannot be seen as self-evident; the conversations do not give exact representations of the educators' actions outside the conversations themselves. Still, we maintain that the approaches identified in the conversations have implications for possibilities and limitations for ICT use and information activities – and thereby for the enactment of information literacies – in classrooms and school libraries.

Results

One idea that stands out in the four focus group conversations is that of ICT as unfamiliar and without clear roles in the primary school setting. It seemed as if the participants had various experiences of using ICT, both personally and professionally, and the discussions were often dominated by explanations of why more familiar tools were superior to newer ICT.

In the following we introduce an idea emerging in the discussions of the need for children to go through a kind of 'media progression'; tools for information seeking were ascribed different meanings depending on conceptions of when and where the tools are appropriate for children to use. Furthermore, we can see how these meanings are related to ideas of 'the good childhood'.

Tools for Information Seeking in Primary School

Descriptions of project-based ways of working functioned as a basis for the focus group conversations. Even though the working methods were described as somewhat differently structured at the different schools and in the different classrooms, the idea of finding the 'right' answers through the use of the appropriate kinds of information sources was predominant in the discussions. The problems associated with the traditional view of school work as being about finding the 'right' answers have been discussed in previous research (see Alexandersson & Limberg, this issue) and were also brought up in the discussions. Moreover, a large part of the discussions was related to the 'right' kinds of tools for information seeking when working with problem-based assignments, but also in general. Some tools were

described as appropriate for primary school children to use whereas others were talked about as more or less inappropriate.

In relation to project-based assignments certain tools for information seeking were described as more useful for children than others in the class-rooms and in the libraries. Here, the differences between digital and non-digital tools were stressed; in the transcript below one teacher describes why digital tools, in this case "the computer", are not as frequently used as print-based tools in the school setting. Her explanation seems to be backed up by the others in the group who are humming in an agreeing way:

TEACHER A1: Well, in a way you think that books are easier because you can sit them by themselves and then they manage themselves for a while, but at the computer you have to stand there with each of them and help them and you don't have the time and I suppose that's what you feel, and therefore you might just skip it altogether instead. Man tänker ju lite så att böcker är lättare för det kan man sätta var och en så och så sköter dom sig själva en stund så, men vid datorn måste man stå med var och en hjälpa och man har inte den tiden och det är väl det man känner kanske, därför struntar man i det helt och hållet istället.

Central in this quotation is the description of the constraint of not having the time to help children one by one. This constraint is described as having implications for the choice of tools for information seeking; the idea of leaving children alone with books but not at the computer seems to be agreed upon in the discussion. Accounts of why non-digital tools were preferred to digital tools were articulated throughout the four conversations. Two recurring explanations can be found in the discussions; the first has to do with control and the second is about children's reading skills.

In part, the educators expressed a fear of losing control if children were allowed to use digital tools, and especially the Internet, for information seeking. Stories of how children had found unsuitable material when using search engines were told and fears of such encounters were expressed in the conversations. The use of the Internet was described as an activity that needed to be carefully supervised in other ways than the use of print material. Books, as opposed to material found on the Internet, were described as reviewed and approved, both by others and by the educators themselves.

Another idea expressed was a difference in the reading skills required between digital and non-digital tools for information seeking. Printed books were described as an outstanding tool for children to use when learning to read, while the Internet was described as a tool that required a higher level of reading skills. Why and to what extent the requirements differed was not articulated, but as in the discussion below, there seemed to be an agreement that this was the case:

PRESCHOOL TEACHER A2: And on the computer you just don't search a lot really, I feel like, with our little ones...

Och på datorn blir det ju inte att man söker speciellt mycket, kan inte jag känna, med våra små...

LIBRARIAN A1: No, I also think... six year olds and year one, I mean most of them can't read at all, so...

Nej, jag känner lite också... sexåringar och år ett, jag menar dom flesta kan ju inte läsa överhuvudtaget, så det...

PRESCHOOL TEACHER A1: You have to be able to read too to go online.

Det kräver ju att läsa att gå in också.

In this quote, the educators seem to agree on a quite traditional notion of how reading skills are something children acquire through the use of purpose-designed tools. Thus, we can see that tools for information seeking were described as best introduced to children in a certain order, according to what we call a media progression, where digital tools and especially the Internet were placed after printed materials.

This media progression was described in relation to primary school; as far as school activities were concerned the children were expected to learn how to use books before they could start using the Internet. That digital tools were used for information seeking, as well as for other purposes, outside the school context was another issue brought up in the conversations. The concerns expressed regarding children's use of digital tools in other contexts had further implications for how tools for information seeking were described.

The Compensatory Role of Primary School

In the focus group discussions, different tools for information seeking were related to ideas of various physical places. It seemed as if the material characteristics of different tools for information seeking were important for how they were valued in relation to different locations and activities (cf. Sundin & Francke 2009). Certain information activities which included certain tools were described as suitable for school work, whereas other mediated activities and tools were clearly related to children's lives outside school hours. Furthermore, different tools were associated to ideas of different childhoods. Digital tools were associated to ideas of contemporary childhoods, ideas which included stories of the shortcomings and problems of these childhoods. These stories were also contrasted to ideas of how primary school could and should have a compensatory role by providing possibilities for 'a good childhood' (cf. Halldén 2009a).

A common story in the discussions was that of children using digital tools for information seeking and personal communication in their homes, which were different from the stories of how digital tools could be used within school. These stories of use outside the school context often included negative characteristics, such as physical inactivity, bullying, nonplay and harmful popular culture (for example, playing computer games was defined as non-play in some of the discussions). Children's use of digital tools outside school was also associated with problems such as stress, and with the fear of a loss of imagination and a rich language, as in this

quite direct description of children using instant messaging and online chat applications:

LIBRARIAN C2: But what I think I've seen when people are online chatting is that their language is deplorable.

Men det jag tycker jag sett av folk som när dom chattar så är ju språket bedrövligt.

SOMEONE: Yes indeed.

Ja, det är det.

LIBRARIAN C2: The intellectual ability is terribly low, right.

Den intellektuella förmågan är ju fruktansvärt låg alltså.

SOMEONE: Yes, that's true.

Ia, det kan man hålla med om.

LIBRARIAN C2: When you see what they are chatting about. It's quite a lot of "uh" and "um" and things like that, isn't it? And all those figures, smilies and all. So... it's like a minimisation of language in a way, isn't it?

När man ser vad dom pratar med varandra om. Det är ju sånt där mycket "öh" och "åh" och sånt där va. Det är det. Och så dom där massa olika figurerna, smileys och alltihopa. Så att... det är en slags minimering av språket på nåt sätt. Det är ju det.

LEISURE-TIME PEDAGOGUE C1: It's important not to lose the real language.

Det gäller att inte tappa det verkliga språket.

LIBRARIAN C2: That's why I tell them that they should read. See things in writing. To know how and not get out of the habit.

Det är därför som jag är så stenhård på att man ska läsa. Se det i skrift så. För att kunna och inte vänja sig av med detta.

SOMEONE: It is important.

Det är viktigt.

LIBRARIAN C2: That's my constant hobbyhorse, this thing about reading. And to use their imaginations too. Especially not to lose your imagination. Empathy. 'Cause it is connected. If you don't have any imagination then you can't empathise either with other people's feelings and thoughts.

Det är mina käpphästar hela tiden, det här med att läsa. Samt att uppleva fantasin alltså. Framför allt att inte tappa fantasin. Inlevelseförmågan. För den hör ihop. Har du ingen fantasi så har du knappt nån inlevelseförmåga heller i vad andra tycker och tänker.

As a counterbalance to this and similar stories, where the use of digital tools for information seeking and other purposes was described in negative terms, we find accounts of how primary school might function as compensation and as an alternative through the use of other tools (cf. Fast 2007, 219). One of these alternatives was printed books and especially children's literature. Even though the stimulus material did not touch upon questions of children's literature, this became a topic of discussion in all of the four focus groups.

A central idea emerging in the conversations was that of good children's literature as a pivotal part of good childhoods. Concurrently, concerns were raised that there is little room for children's literature in children's every-day lives in contemporary society. By providing encounters with good children's literature, primary school not only supported children on their way to becoming literate, but also created opportunities for the fulfilment of the good childhood. Digital media, on the other hand, was often described

as an obstacle hindering children from becoming literate and as a threat to the good childhood.

Thus, in the making of a good childhood within school, some tools for information seeking were described as more suitable than others. At times the argument was that children *need* non-digital tools in a world of digital tools, here the arguments sometimes referred to children's 'nature' as in the discussion below:

PRESCHOOL TEACHER A3: But if you ask the kids as we have done at times: "How do you go about finding out things?", then they often have very different ideas, they would ask mum or dad or grandma and grandpa, or someone else who knows a lot or they use books. They have a lot of confidence in books. Then if they are up-to-date or not, I don't think children always know that, but...

Men frågar man barnen som man har gjort ibland: "Hur ska man få reda på saker och ting?" så har dom ofta helt andra föreställningar, dom skall fråga mamma eller pappa eller farmor och farfar eller någon annan som kan mycket eller så går de oftast till böcker. De har väldigt stor tilltro till böcker. Sedan om de är aktuella eller ej, det tror jag inte barn kanske alltid vet, men...

LIBRARIAN A1: Books are like more concrete to hold and flip through the pages.

Boken är mer konkret liksom att hålla i den och bläddra i den.

In this quote the sensory experience of a book is mentioned as an important aspect of why children are described as choosing books before digital tools. The idea that children prefer to address their questions to authorities such as parents and grandparents is also expressed. Similar ideas are articulated in one of the other groups, where the use of a designated forest area, a so called 'school forest'⁶, is described as a tool for information seeking. In this discussion, the children's visual, sensory and first hand experiences are stressed as important:

TEACHER B3: Me and Preschool Teacher 4, we've actually been searching for information outdoors and we actually just went out and looked at the reality, we were learning about conifers. Now, the good thing is that in our forest, the school forest, there are three kinds of conifers.

Jag och förskollärare 4, vi har ju faktiskt sökt information ute och vi gick faktiskt bara ut och tittade på verkligheten, vi skulle lära oss om barrträd. Nu är det så bra att i vår skog, skolskog, så finns det tre sorters barrträd...

PRESCHOOL TEACHER B5: Mm, four.

Mm, fyra.

TEACHER B3: Right, there might be four, yes we have junipers too. *Fyra kanske det är, ja en har vi också.*

TEACHER B2: Yeah, a single one.

En enda.

TEACHER B3: Yes, exactly. Anyway, we have three types of conifers at the windbreak and we took the children there and then they were looking and feeling and collecting cones and comparing and talking about similarities and differences and things like that and then today we went outdoors again and then they were painting pictures of at least two kinds of conifers. And then we had this with pictures again [inaudible] reality and we have hung them, so I thought we should talk about and see, compare those pictures. So... at times we seek information like that.

Ja, precis. Ja, i alla fall vid vindskyddet så har vi tre olika barrträd och så vi tog med oss barnen dit och då fick dom titta och känna och samla kottar och jämföra och prata om vad som är likheter och skillnader och sådär och så sen idag då så var vi ute igen och så fick dom måla av då minst två barrträd. Och då kom det här med bilden igen, [ohörbart] verkligheten och så har vi satt upp den då, så tänkte jag att vi skulle

prata om och se, jämföra dom här bilderna. Så att det... ibland så söker vi information på det sättet.

In this quote we can also see how an outdoor environment is described as a suitable tool for information seeking. The idea of nature as a symbol of the good childhood, especially in the Nordic countries, has been a topic in an edited volume by Halldén (2009a). In an analysis of the discourses of nature in a Swedish professional journal for pre-school teachers, *Förskolan*, Disa Bergnér (2009) shows how 'nature' and 'outdoors', which often mean a forest close to the pre-school, are described in solely positive terms. 'Nature' is described as an authentic and outstanding pedagogical tool, as opposed to the artificial tools used indoors. These discourses can also be found in the focus groups of our study. They can further be connected to the discussions of good children's literature where the theme of nature is common (cf. Halldén 2009b), as in the following quote:

TEACHER D7: But they need this, to sit and light a candle and listen to this, just the descriptions of nature too, just a little bit...

Men dom behöver det här att sitta och tända ett ljus och lyssna på det här, bara naturbeskrivningar också, lite grann...

In this quote the teacher refers to the reading aloud of the book *Mio, My Son* by the Swedish children's author Astrid Lindgren during a discussion on children and stress. The combination of the experience of listening to a classical children's book and an experience of nature is here described as a counterbalance to the children's stressful lives.

In the focus group conversations tools for information seeking were described as useful for children and trustworthy in the school setting because of their material characteristics. Some tools were ascribed characteristics valued in school and as mediating contents suitable for children, whereas others were ascribed obstacles and problems. Children were described as needing as well as preferring non-digital tools; at the same time it was acknowledged that they chose to use digital tools, especially outside

the school setting. Hence, what we see in the analysis is two ideas of childhoods. On the one hand we see the idea of a good childhood in which traditional tools for information seeking are important, and on the other hand we identify an idea of a contemporary and to some extent frightening childhood where the use of digital tools is common. In the focus group discussions, the role of primary school often became to provide conditions for good childhoods to prosper, and in that way create an alternative to the harsher conditions found outside of primary school (cf. Fast 2007, 219).

Discussion and Conclusions

In conclusion, what implications might the above described approaches to children's use of ICT and other cultural tools have for the enactment of information literacies in primary school? Two overall lines of reasoning related to ideas of childhood have been identified in the analysis. Firstly, we find the idea of the good childhood, which is described as having little room for ICT, but plenty of room for traditional tools for information seeking such as books. Secondly, there is an idea of contemporary childhoods, which are described as taking place outside the school context. In these childhoods, digital tools for information seeking and other purposes are viewed as used to a too large extent. Furthermore, these latter childhoods are described as insufficient, and it is argued that one of the roles of primary school is to counterbalance these childhoods and providing tools that can be a part of the forming of good childhoods.

These ideas or approaches are not unique for the four focus group discussions analysed here. According to Drotner (1999) similar descriptions of how children's childhoods are threatened by newly introduced media can be found throughout history. That children's experiences of media use outside the school context are neglected rather than incorporated during the first school years has also been discussed in previous research (Fast 2007).

Furthermore, the lines of reasoning identified in the focus group discussions include a type of techno-determinism discussed by Qvarsell (1988), Buckingham (2000) and Karlsohn (2009). In the focus group conversations ICT is discussed as something unavoidable that eventually will be used by the children as they progress through the educational system, even though the use of ICT in primary school can be controlled and counterbalanced by the use of other tools. The negative effects of ICT which are described are seen as possible to limit, but not to prevent in a longer-term perspective.

Thus, the approach to ICT as something undesirable for primary school children to use which emerges in the focus group conversations can be seen as an example of historically recurrent ideas on the negative effects of new technologies. The results from this study might therefore be seen as confirming earlier studies on societal discourses regarding the introduction of new tools in schools and in children's lives. Even though the constraints ascribed to ICT in the discussions may not be surprising, the negative approach to ICT can be seen as limiting in some respects.

For example, given our understanding of the expanded meaning of literacies in contemporary society, where the diversity of media formats, genres and modes entail new demands on people's abilities, we find that the idea that children's reading and language development is threatened by ICT and that they first and foremost need to learn to read through the use of print material is too restricted. Furthermore, the idea that children use digital media outside school and therefore do not need to learn how to use digital tools in school can be questioned. This idea not only depreciates children's lives outside school, but it also conceals inequalities regarding the accessibility of ICT outside the school context.

However, the idea of the good childhood in the discussions can be seen as a way of describing children as *being* here-and-now and not merely as *becoming* mature for the future (cf. James, Jenks & Prout 1998, 207). At the same time, in the approach to contemporary childhood children's

here-and-now outside the school context is described in a mainly negative manner. It would be problematic if the enactment of information literacies in primary school did not include possibilities for children to use tools that are common in Swedish society at large or if they were not prepared for tasks and challenges that they might meet in the future. Primary school as an institution cannot avoid paying attention to children as *becoming*, as well as *being*.

These objections should not be understood as arguments against the use of children's literature or firsthand experiences of natural phenomena in primary school, or as a derogation of the educators' concerns expressed in the focus groups. However, if one of the roles of primary school is seen as preparing children for practices beyond and outside primary school, the idea that ICT should not be used for any purposes in primary school and that ICT should not be part of children's childhoods at all can be seen as quite limiting in terms of how information literacies can be enacted in primary school.

The study presented in this article provides an understanding of some of the ideas that may have implications for information literacies in primary school. However, the ideas and approaches identified in the analysis should not be seen as straightforwardly transferred into the activities taking place in Swedish primary school classrooms and libraries. If we want to create a further understanding of how information literacies are enacted in primary school, other kinds of studies are required, such as ethnographical studies of everyday information activities in primary school. Furthermore, these studies would also have to clearly take the children's perspectives into account, as the enactment of information literacies in school settings indeed requires children's active participation.

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Notes

- 1. This article is a revised and rewritten English version of a contribution to an edited book that was originally published in Swedish: *Informationskompetenser: om lärande i informationspraktiker och informationssökning i lärandepraktiker [Information Literacies: On Learning in Information Practices and Information Seeking in Learning Practices*] (2009). Eds. Jenny Hedman & Anna Lundh. Stockholm: Carlssons.
- 2. The preschool class was introduced in Sweden in 1998. It is supposed to bring preschool closer to school for children who are in the transition between the two institutions. The introduction of the preschool class meant that preschool teachers and primary school teachers needed to start working more closely together. (Lumholdt & Klasén McGrath 2007).
- The Swedish term for leisure-time pedagogue is *fritidspedagog*. As Swedish public schools and leisure-time centres often are coordinated, leisure-time pedagogues can be involved in both school and after-school activities.
- 4. Anna Lundh.
- 5. Lena Tyrén or Elin Olson.
- 6. In Sweden, a school forest is "an area that is being used for educational purposes, over which the school and the land owner has reached an agreement of how the school may utilize it." (Bergquist 2008, 4) The programme behind the idea of school forests, 'The Forest in School', is supported by a range of organisations within the Swedish forestry sector (Skogen i Skolan 2010-08-17).

References

ABBAS, JUNE (2010). "Children and Information Technology." Eds. Marcia J. Bates & Mary Niles Maack. *Encyclopedia of Library and Information Sciences*, 3. ed. Boca Raton, FL: CRC Press. 930–941.

ANDERSEN, JACK (2006). "The Public Sphere and Discursive Activities: Information Literacy as Sociopolitical Skills." *Journal of Documentation* 62.2: 213–228.

BERGNÉHR, DISA (2009). "Natur, utomhusmiljö och den goda barndomen i tidningen Förskolan." ["Nature, outdoor environment and the good childhood in the journal Förskolan"]. *Naturen som symbol för den goda barndomen* [Nature as a symbol for the good childhood]. Ed. Gunilla Halldén. Stockholm: Carlsson. 59–77.

BERGQUIST, LINA (2008). Viktiga egenskaper hos framgångsrika svenska skolskogar = Important Qualities of Successful School Forests in Sweden. Umeå: Umeå Universitet. http://epsilon.slu.se/11173679.pdf> [2010-10-21].

BUCKINGHAM, DAVID (2000). After the Death of Childhood: Growing up in the Age of Electronic Media. Cambridge: Polity.

CASE, DONALD O. (2007). Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior. 2. ed. Amsterdam: Elsevier/Academic Press.

CENTRUM FÖR MARKNADSANALYS CMA (2003). "Summary in English." In *IT i skolan: KK-stiftelsen, Oktober 2003* [IT in school: The Knowledge Foundation, October 2003]. Stockholm: CMA – Centrum för Marknadsanalys AB. 126–136. http://www.kks.se/upload/publikationsfiler/it_i_utbildning/it_i_skolan_2003_%20ka pitel_5.pdf> [2010-11-05].

DAVIDSSON, BIRGITTA, ANNA LUNDH & LOUISE LIMBERG (2009). "Yngre skolbarns informationssökning och pedagogers föreställningar om den goda barndomen." ["Young School Children's Information Seeking and Educators' Ideas of the Good Childhood"]. *Informationskompetenser: Om lärande i informationspraktiker och informationssökning i lärandepraktiker* [Information Literacies: Learning in Information Practices and Information Seeking in Learning Practices]. Eds. Jenny Hedman & Anna Lundh. Stockholm: Carlsson. 66–84.

DROTNER, KIRSTEN (1999). "Dangerous Media? Panic Discourse and Dilemmas of Modernity." *Paedagogica Historica* 35.3: 593–619.

ENOCHSSON, ANNBRITT (2005). "The Development of Children's Web Searching Skills: A Non-Linear Model." *Information Research*, 11.1. http://InformationR.net/ir/11-1/paper240.html [2011-06-02].

FAST, CARINA (2007). Sju barn lär sig läsa och skriva: Familjeliv och populärkultur i möte med förskola och skola. [Seven Children Learn to Read and Write: Family Life and Popular Culture in Contact with Preschool and Primary School]. Diss. Uppsala: Uppsala University.

HALLDÉN, GUNILLA, ED. (2009a). *Naturen som symbol för den goda barndomen*. [Nature as a Symbol for the Good Childhood]. Stockholm: Carlsson.

HALLDÉN, GUNILLA (2009b). "Naturen som symbol för den goda barndomen". ["Nature as a Symbol for the Good Childhood"]. *Tvärsnitt* 2.

http://tvarsnitt.vr.se/huvudmeny/tvarsnittnr22009/essanaturensomsymbolfordengessanaturens.4.72e6b52e1211cd0bba8800011830.html [2010-11-05].

HEDMAN, JENNY & ANNA LUNDH, EDS. (2009). *Informationskompetenser: om lärande i informationspraktiker och informationssökning i lärandepraktiker.* [Information Literacies: On Learning in Information Practices and Information Seeking in Learning Practices]. Stockholm: Carlssons.

JAMES, ALLISON, CHRIS JENKS & ALAN PROUT (1998). *Theorizing Childhood*. Cambridge: Polity.

JEWITT, CAREY (2006). Technology, Literacy and Learning: A Multimodal Approach. London: Routledge.

JEWITT, CAREY, ED. (2009). *The Routledge Handbook of Multimodal Analysis*. London: Routledge.

KARLSOHN, THOMAS (2009). *Teknik – retorik – kritik: Om IT-bubblan och datoriseringen av den svenska skolan.* [Technology – Rhetoric – Critique: On the IT Boom and the Computerisation of the Swedish school]. Stockholm: Carlsson.

KARLSSON, MIA (2004). *An ITiS Teacher Team as a Community of Practice*. Diss. Göteborg: Göteborgs universitet.

LARGE, ANDREW (2005). "Children, Teenagers, and the Web." *Annual Review of Information Science and Technology*, 39. Ed. Blaise Cronin. Medford: Information Today. 347–392.

LINELL, PER (2009). Rethinking Language, Mind, and World Dialogically: Interactional and Contextual Theories of Human Sense-Making. Charlotte, NC: Information Age.

LLOYD, ANNEMAREE (2007). Recasting Information Literacy as Sociocultural Practice: Implications for Library and Information Science Researchers. *Information Research* 12.4. http://InformationR.net/ir/12-4/colis34.html [2010-11-05].

LUMHOLDT, HELENE & MONICA KLASÉN MCGRATH (2007). *The Swedish Pre-School Class: One of a Kind.* Stockholm: Myndigheten för skolutveckling. http://www.skolverket.se/publikationer?id=1965> [2010-08-19].

MARKOVÁ, IVANA ET AL. (2007). *Dialogue in Focus Groups: Exploring in Socially Shared Knowledge*. London: Equinox.

MAYALL, BERRY (2000). "Conversations with Children: Working with Generational Issues." *Research with Children: Perspectives and Practices.* Eds. Pia Christensen & Allison James. London: Falmer. 120–135.

QVARSELL, BIRGITTA (1988). Children's Views on Computers: The Importance of Affordance, *Education and Computing*, 4.3: 223–230.

SKOGEN I SKOLAN (2010). *Skogen i skolan: Information och inspiration för lärare och elever.* [The Forest in School: Information and Inspiration for Teachers and Students]. http://www.skogeniskolan.se/index.cfm> [2010-11-05].

SUNDIN, OLOF (2008). "Negotiations on Information Seeking Expertise: A Study of Web-Based Tutorials for Information Literacy." *Journal of Documentation* 64.1: 22–44.

SUNDIN, OLOF & HELENA FRANCKE (2009). "In Search of Credibility: Pupils' Information Practices in Learning Environments." *Information Research* 14.4. http://InformationR.net/ir/14-4/paper418.html [2010-11-05].

SÄLJÖ, ROGER (2005). Lärande och kulturella redskap: Om lärprocesser och det kollektiva minnet, [Learning and Cultural Tools: On Learning Processes and the Collective Memory]. Stockholm: Norstedts akademiska förlag.

SÄLJÖ, ROGER (2000). Lärande i praktiken: Ett sociokulturellt perspektiv [Learning in Practice: A Sociocultural Perspective]. Stockholm: Prisma.

TUOMINEN, KIMMO, REIJO SAVOLAINEN & SANNA TALJA (2005). "Information Literacy as a Sociotechnical Practice." *Library Quarterly* 75.3: 329–345.

WERTSCH, JAMES V. (1998). Mind as Action. New York: Oxford UP.