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Media landscapes in school and in free time – two parallel realities?

This article is based on an extensive research project (Towards Future Literacy Pedagogies, ToLP[1]) that deals with the literacy practices of Finnish and immigrant pupils, mother tongue (MT) and foreign language (FL) teachers. The overall aim of the project is to explore and interpret literacy practices both in school and out-of-school contexts by employing large-scale quantitative research approaches as well as qualitative classroom observations and teacher and pupil interviews. In this article, we will report findings of the comprehensive survey, our specific focus being on the materials and media the teachers and pupils use in school and in their free time. We are interested in exploring in which ways the media landscapes are either similar or different and to what extent the digital worlds have reached the language classroom. The results show that there is a growing gap between the practices in school and the way in which pupils use the various media in their free time for informal learning and for social existence. It seems that textbooks and other print-based materials dominate at school, whereas a quite dynamic and multilayered digital world is the reality for pupils outside school.

KEYWORDS
literacy practices • language and mother tongue learning • media use • formal and informal learning • learning resources

1. Introduction

Media use and reading and writing skills have been considered basic prerequisites for full participation in society, but the ones provided by formal education have become insufficient for dealing with the social, cultural and multimodal nature of information in the increasingly complex learning and working environments of the knowledge society (see e.g. Scardamalia & Bereiter, 1999). The ideal future citizen skillfully employs both his/her mother tongue(s), foreign languages and technology as s/he navigates purposefully around the escalating wealth of information. For some people the skills needed for cop-

ing with multimodal and multilingual settings are likely to emerge from the social practices they engage in during their everyday lives. For others, these skills are beyond reach and thus there might be a risk of social exclusion. It is a challenge also because the whole territory of multiliteracies is somewhat unknown and undefined, even more so in the schools as the teachers might not be literate themselves (Snyder, 2002).

As the world changes, language teaching is facing ever increasing demands to take into account the effects of technology and the new media on the ways in which languages are used and learned. The current educational structures need to offer learners dynamic learning settings where they set their own goals for learning and are supported and guided in their learning process by both giving room for their individual learning, but also allowing for group processes along with wide-ranging interaction. How are language teachers coping with these demands? And how are they adapting their pedagogical thinking to include new approaches to literacy skills, assessment and media use? These are not mere skills in using the different media, but a completely new culture of peer-to-peer learning, joint knowledge construction and shared expertise. It will be even more crucial for educators to be able to acknowledge and support learners' identity work and negotiate the boundaries between formal and informal literacies in offering access to varieties of literacy practices. This article has special focus on language teachers and their pedagogical practices, but the challenges are the same across the curriculum. Thus, it is worthwhile asking what kind of education would best prepare pupils for life in a knowledge society (Scardamalia & Bereiter, 1999).

The approach to language pedagogy adopted in this article, and in our research in general, incorporates socio-constructivist (Scardamalia & Bereiter, 1994; Breiter & Scardamalia, 1996; Resnick et al., 1991) and sociocultural (Lee & Smagorinsky, 2000; Lantolf, 2000; van Lier, 1996; Warschauer, 2003) learning theories that emphasise the interdependence of social and individual processes in the co-construction of knowledge. In this line of thinking, learning takes places in interaction both in formal and informal contexts. One core concept is multimodal pedagogy[2] which perceives learning as a non-linear transparent process where the individual and group learning needs are addressed in a more efficient way, and learning tools, working modes and the use of different media are built around the learning process and not the learning content (Taalas, 2005). A central aim of multimodal pedagogy is to promote learners' self-directedness through individual goal-setting, self-assessment and more alternative ways of working.

We will open our exploration by discussing the issues by contextualising the current educational praxis and define our view of an ideal learning environment. Secondly, we will present the key terminology used in the exploration, examine how the national curriculum supports the integration of media in teaching and move on to the actual use of different media and multimodal learning resources on the basis of the results of the survey (see the chapter on data for more information). Finally, we will point out some of the

areas that require specific attention when rethinking current literacy pedagogies and media education and discuss how media landscapes could be developed in schools.

2. School pedagogies in a crossroads between theory, policy and practice level

The teachers work in a constantly changing environment where the policy and theory levels impose new ideologies, initiatives and direct prompts on the practice level (see Figure 1). When there should be an interactive interplay between the practice and policy/theory levels, it sometimes seems that all three pull in somewhat different directions, or at least live in different life cycles from a time and content perspective (see for instance Evans, 1996, Fullan, 2001, Senge, 2000, Sinko & Lehtinen, 1999). The policymakers are aware of the long term development needs and yet often base the prerequisites for funding educational initiatives on quite quantitative quality measures and/or on short project timelines (Sariola & Söderlund, 2004). Apart from the fact that policy or strategic level initiatives are often top-down ventures, they are also often scarcely resourced and may have unrealistic or superficial goals when it comes to developing schools in a systemic way. This in turn makes it difficult for schools to make long-lasting decisions about directions, priorities and commitments as the policy environment is in a constant state of flux. The theory or research level initiatives in turn can be separated from both the practice and policy level and thus form an isolated existence adjacent to both these levels, but without a real linkage to either (Taalas, 2006).

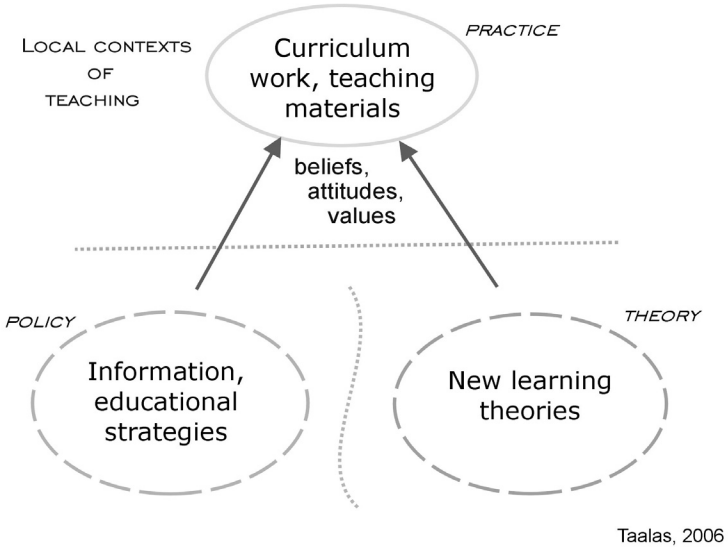

Figure 1. Practice level in respect to the policy and theory levels.

In the Finnish context, the national curriculum (National Board of Education, NBE 2004) is not only the most critical, but also the most influential policy document in schools and it shapes the way in which teaching is organised and contextualised (Sulkunen, 2007). For this reason it is important to explore the ways in which the curricula support, encourage or impede a wide-ranging use of the various media for learning. In the Finnish national curriculum for mother tongue teaching at lower secondary schools (NBE 2004, pp.44–55) teachers are assumed to guide pupils towards critical thinking by working with and around various media texts. The idea is that this work will support pupils in becoming active citizens and becoming involved in culture, but also in forming a critical attitude towards the media. These issues, their wording and concrete goals remain, however, very abstract and as mere implications and recommendations.

Another important reason given in the curriculum for integrating media texts in the classroom is to create and allow for experiences and insights that can be used for learning purposes. It is hoped and presumed that these experiences will serve as catalysts for collecting and sharing cultural perceptions, negotiating meanings and for creating images of oneself, of others and of the world. In the curriculum, the pupil is placed in the role of a recipient of such perceptions and experiences, while a role as a producer is offered to them only in the abstract core contents. The recipient role, however, is described in great detail in the content areas. Media literacy includes assessment of the impact of media texts, recognition of typical genres of media texts, examination of the verbal, visual and auditory techniques used in media texts and assessment of one's own media use and skills. On the whole, the authorship and ownership of the pupil is represented as an opportunity; communities and schools have to take up on it and design the contents in their local curricula where the role of the pupil is of the producer of media texts. Using the media in more diversified ways in school could enhance a pupil's creativity and productive skills (see Luukka et al. 2008).

In the foreign language curriculum the various media are not dealt with as a separate entity and only occasional references occur in the general texts. As in the curricula for mother tongue and literature, the media offer tools for information searches and for communication. In addition, media texts serve as resources for practicing communication skills. The only media texts that are mentioned specifically as being produced by pupils are *e-mail messages*.

According to, for instance, Hargreaves (2003, pp. 52–62), teaching for the knowledge society involves cultivating a multitude of capacities in young people. The task of teachers really is an almost impossible one. They need to develop cognitive learning and creativity among pupils, while at the same time drawing on research findings, being team workers and teaching their pupils to work in a multitude of networks and teams, promoting their pupils' problem-solving skills along with critical thinking, risk-taking and trust in the

various collaborative learning processes and succumbing to the various forms of national and international assessment. Along with these pressures, the teachers themselves also need to pursue their own professional learning and to nurture the ability to cope with change and commit themselves to the continuous development efforts of their own organisations. On top of all this teachers need to be aware that what they do in their classrooms will have a long-lasting effect on their pupils' lives and will affect their ability to learn and work after completing their formal education.

3. Some characteristics of an ideal environment

It is important to understand that learning is a social process that occurs across a continuum of contexts that are "fit" for learning. These contexts exist both in school and outside school. We could define it as an environment that entails the new notions of the changing world, but also an environment that encourages creativity, participation and collaboration between learners and their outside world. This environment is not a fixed entity, but a pedagogically flexible mindset that offers learning opportunities for all learners in a varied way. As Säljö (2000) points out, school is an important and unique learning environment because the cognitive socialisation it offers is a foundation for successful adaptation to the ways in which society operates. The problem of school is, however, that it is too stagnant and does not really renew its processes for teaching and learning. The new technologies seriously challenge the old school tradition of observing the world through abstract concepts and abstract language only. Instead of asking the pupils to read, write and talk about their surrounding realities, they should be guided and supervised to actively take part in them.

Lankshear and Knobel (2006) refer to the same issue when they talk about school and the "stuff" for learning and make a difference between the "old" (mindset 1, hereafter referred to as MS1) and the evolving (mindset 2, hereafter referred to as MS2) mindsets. These mindsets are associated with the changes around us that also affect the way in which learning settings are designed. In the "old" mindset the individual person is the unit of production, competence and intelligence, whereas in the evolving mindset the focus is ever increasingly on collectives as the central unit. Another important difference is the approach to expertise and experts. In MS1 expertise and authority are located in individuals and institutions, whereas MS2 recognises these as distributed and collective. In MS1 the social relations of "bookspace" prevail and there is a stable and fixed textual order. In MS2 social relations are more visible and emerge in the digital media spaces where texts are constantly changing. This aligns well with Scardamalia's and Bereiter's (2006) notion on "knowledge about" and "knowledge of". *Knowledge about* is parallel to MS1, which dominates traditional educational practice in schools (textbooks, curricula and tests, etc.). By contrast, *knowledge of*, which consists of both procedural knowledge

and declarative knowledge (c.f. MS2) is neglected in schools. This is why schools seem to have difficulties in coping with problems that are authentic for pupils and elicit real ideas from them. Schools seem to be hesitant in accepting the fact that pupils can create knowledge that could be useful for their future communities (Scardamalia & Bereiter, 2006). In our view, an ideal learning environment is built on these afore mentioned principles of learning designs that are dynamic, flexible and collaborative by nature and seem to be very much geared towards MS2 and new types of knowledge structures and construction.

4. The operational framework

The triangle presented in Figure 2 illustrates the operational framework we have created as a supporting apparatus for designing the survey questionnaire. The elements in the framework are representations of the theoretical underpinnings in our study and highlight our specific focus points in the area, such as multimodal pedagogy, identities and learning in school and outside school. The triangle has been employed both when designing the questionnaire, but also when interpreting the results. The units located inside the triangle correspond to the core elements of a typical teaching and learning setting. The scale Access-Authorship-Ownership is used to imply and "measure" the empowering and/or restrictive effects of the teaching practices and available materials in a given context. These features or characteristics can be used as tools to understand the mechanisms of a certain material or a learning activity when it comes to constructing knowledge, the social spaces of learning and the roles of the participants.

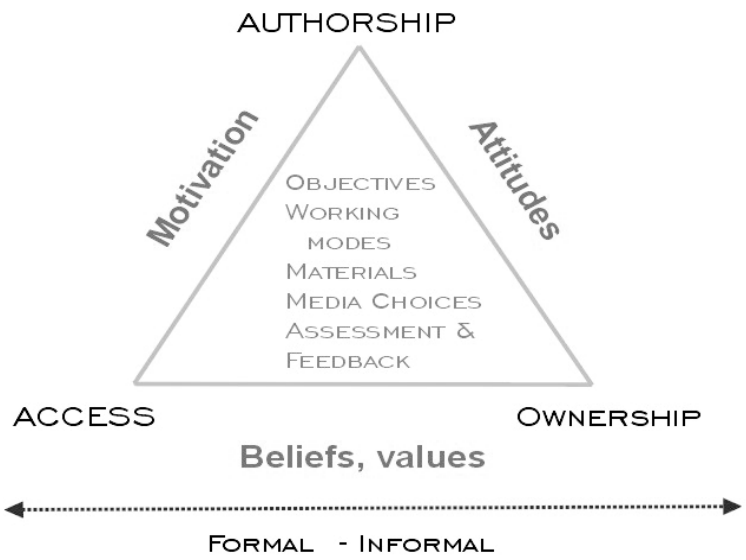

Figure 2. The framework used in designing the survey questionnaire.

Teaching goals (on both the policy and practice levels) can be considered as guidelines for learning in terms of both content and practices. The material and media choices and assessment practices are influential mechanisms that guide the learners towards a certain way of thinking and learning. Furthermore, the concepts of "learning material" and "media choices" do not refer narrowly to a book and a data projector/PC, but to the use of open-ended materials that are meaningful for the learner, that offer added value for learning and that employ the real potential of the various technologies and media. This employment is thus not just about replacing the existing materials, but expanding and transforming the learning setting on many levels.

5. Data

The ToLP project employs both quantitative and qualitative research phases with the idea of first obtaining an overview of the situation in Finland and then moving on to explore the various phenomena in more detail. These explorations take place in and outside the classroom with both teachers and pupils. The major research instrument in the quantitative approach has been an extensive survey. In spring 2006, the survey was conducted based on a representative sample of 9th grade pupils (15-year-olds) and language teachers[3]. Information was collected on current literacy practices, media and text choices, teaching practices and prevailing attitudes towards literacy. The survey replies were received from about 1700 pupils from 102 Finnish-speaking lower secondary schools and 740 mother tongue and foreign language teachers. The surveys of teachers and pupils are to a feasible degree identical despite the fact that the pupil survey offers more concrete phrasing in certain questions (see Table 1). The questionnaires comprise of three parts: background information, school practices and out-of-school practices sections. The survey was validated through a piloting and revision procedure. All data referred to in this article comes from this survey.

The questions about the materials used in language classrooms are posed in the second part of the survey, and the use of media in free time in the third part of the survey. These questions relate to the themes, such as materials used in mother tongue and foreign language classrooms, materials used in classrooms for other subjects, media used in free time and time spent daily on using various media. Both the teachers and pupils have also been asked about their media and technology skills and their improvement needs. Media-related questions about attitudes and beliefs were phrased as statements that the respondents reacted to on a 4-point Likert scale. The attitude statements were designed so that the statements have reinforcing statements and so that they can be tagged as neutral, positive or negative. They included statements such as "the Internet is a valuable learning environment", "It is important to discuss pupils' free time media use in the classroom", and "Playing games is useful for learning languages". The questionnaire constructs

were developed for this specific research project, but naturally also previous studies and large-scale surveys were consulted to make future comparisons of results possible (Creswell, 2004, Lehtonen & Pahkinen, 2004, Hogarty et al., 2003, PISA reading survey, ICT barometers, surveys of Finnish youth and media use).

Table 1. The structure of teacher and learner questionnaires.

A. BACKGROUND INFORMATION	B. SCHOOL PRACTICES	C. OUT OF SCHOOL PRACTICES
• education (only teachers) • experience (only teachers) • language knowledge • use of technology • MT & FL grade (pupils) • self-assessment in MT and FL (pupils)	• materials • working modes • learning goals • cooperation • feedback and assessment • practices • attitudes	• use of the media • technology skills and needs • reading and writing texts • attitudes

The data in this article concentrates on the teachers' responses and attitudes towards materials in the school setting as well as materials produced by the pupils both during and for class time. We will also look into the actual free time media use reported by both the pupils and the teachers and explore the areas in which they felt they need further improvement. For the sake of our argumentation, it suffices to present the results as frequencies, and when relevant, with significances. More in-depth analysis of the survey data for specific areas has been presented in other publications relating to the project (see the project website for more information).

6. Results

In the following we will present results with the focus on the themes discussed above. The results will be portrayed through the teachers' eyes as they are more likely to have a structured view of what is going on in the classroom[4]. Free time media use for both teachers and pupils is analysed and discusses in our other publications.

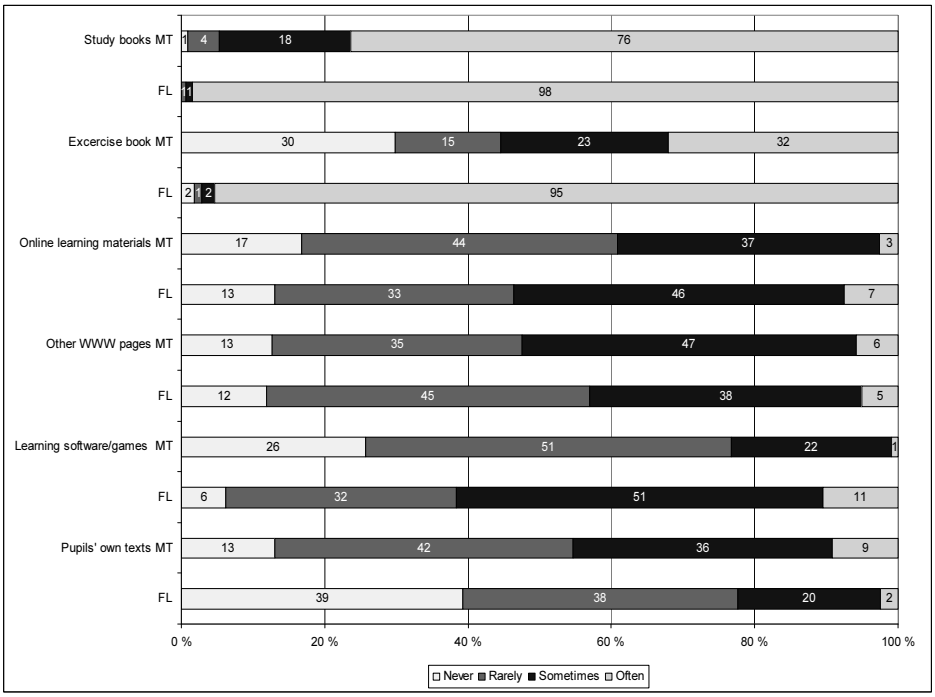

Figure 3. Use of learning materials in the classroom (both MT[5] and FL teachers).

One of the central elements of a classroom is the materials used for teaching and learning. In the survey this was explored with a chart type of a question, where the teachers and pupils could mark both the types of materials they use and also the intensity of the use (see Figure 3). For 98 per cent of the FL teachers the textbook is the primary material and the exercise book follows in a strong second place (95%). For 93 per cent of the MT teachers the textbook is the primary material and fiction comes second (90%). The high percentage for fiction is explained by the fact that the subject is actually "Mother tongue and literature". Newspapers are used in MT teaching sometimes (as reported by 59% teachers). In the FL classroom the add-on audio and visual materials that come with the textbook are frequently used by 93 per cent of the teachers.

The other types of materials fall clearly behind the "regular" materials, especially the various digital resources which are used very sparingly in teaching. Of the MT teachers 44 per cent reported very infrequent use of various online learning materials, 35 per cent used other www pages and 51 per cent used games or other learning materials **rarely.** The situation is very similar for the FL teachers: 44 per cent used various online materials seldom, and www pages were used **rarely** by 47 per cent of the teachers. The FL teachers use games and learning software a little bit more than the MT teachers as half of them (51%)

reported using these resources **sometimes**. As many as 32 per cent of the FL teachers reported using them **rarely**. The materials pupils read or write in their free time are rarely used in the classroom. 36 per cent of the MT teachers integrate pupils' writings into teaching **sometimes** and 39 per cent of the FL teachers **never** integrate pupils' writings produced in their free time. This is a notable point as the curriculum for mother tongue teaching specifically emphasises the pupils' voice and text as the point of departure for teaching.

Apart from the types of "texts" the pupils read, it is also interesting to see what they write or produce. According to the teacher responses, the main emphasis is on "school essays" in MT teaching and "discussions" in foreign language teaching. In these discussions the teachers most likely refer to the different communicative tasks in the textbooks and exercise books. Most often these tasks are based on pre-written dialogues. The pupil data on this point is not directly comparable, but it seems that the responses are similar to the teachers' responses. Pupils are also asked about the types of activities they feel they learn most from. In mother tongue teaching the response was "essays" and "other texts" and mostly "oral presentations" in the foreign language classroom. This finding can probably not be taken at its face value, but is rather an indication of what types of activities the pupils are most used to and also the types of activities that are most common during teaching.

Materials produced in the classroom

What kinds of materials do the pupils produce in the classroom? According to the MT teachers, in the MT classroom pupils wrote essays **often** (80%) or at least **sometimes** (19%). Oral presentations were made **sometimes** according to 64% of the MT teachers. In the FL classroom 60% of the teachers said pupils wrote essays **sometimes** (the percentage for "other texts" in the same sometimes category was 49). In addition, oral presentations were made in the FL classroom typically either **sometimes** (40) or **often** (42%).

Digital materials seem to be quite scarcely used both in MT and FL teaching. For example, 66% of the MT teachers and 71% of the FL teachers stated that their pupils had **never** used or worked on web-based materials. Video or audio recordings were almost as uncommon: according to the teachers, 29% of the pupils in MT and 59% of the pupils in FL classrooms were **never** engaged in such activities.

On the basis of our data, it can be noted that the classroom is quite print-based and somewhat teacher-led. There is nothing wrong with that per se, but it is not easy for the pupils to gain ownership in this kind of setting and to become more in control of their own learning. A more open learning setting would involve the pupils as active producers of the learning content and materials and allow them to become engaged in the assessment of the learning outcomes in a more equal way.

Attitudes in relation to reality

How is it then possible for the teachers to support pupils in their media use when they clearly have very different approaches and experiences regarding their use? The teachers in general express a positive attitude both towards needing to use technology in their work and towards discussing their pupils' use of the media. However, when bringing up their need to learn more about the use of the various media the youth actually use, the sentiment changes. Most teachers (about 87%) did not know anything about computer games and online game sites and did not feel they would need to know about them either. Half of the teachers did not know and did not need to learn about the various online communities and discussion forums. This seems to create a challenging equation: how can the teachers relate to the ways in which their pupils use the media when their knowledge is limited, their own experiences are different and they do not feel the need to know more?

In the light of the current discussion, it is interesting to see how the teachers reacted to the statement about the school being able to provide the pupils with sufficient skills for the knowledge society. The teachers in fact have somewhat contradictory opinions on this: almost half of the MT teachers (44%) **partly disagreed** with the statement, whereas more than half (52%) of the FL teachers **partly agreed** with it. It can be assumed that the MT teachers are more aware of (and feel more responsibility for) the goals of media education as it is more clearly stated in the MT curriculum. There certainly is a difference in the way of responding to the questions relating to the overall goals of MT versus FL teaching. Both indeed aim at educating civilised members of society, but the FL teachers may have a bit more "cultural" (the culture of the target language) emphasis, whereas the MT teaching is more locally attuned. This difference can be illustrated with the following quote from the national curriculum for mother tongue teaching: "*The objective is that the pupil becomes an active and ethically responsible communicator and reader who gets involved in culture and participates in and influences society.*" (NBE 2004, p. 44.) A very strong cultural tone is present in the curriculum for foreign languages too, but it does not involve active participation or local levels, but deals clearly with learning about the traditional cultural heritage of the country of the target language.

As for the statement of technology being an important tool for teachers, the responses were quite similar in both teacher groups: 52% of the MT and 54% of the FL teachers partly agreed and 32% of the MT and 35% of the FL teachers completely agreed with the statement. In other words, less than 20% of the teachers were either neutral or did not agree with the importance of being able to use technology in their work. This statement does not imply their existing skills, but functions as a strong indicator of the fact that the teachers would want to be technologically savvy in their work. They also felt that it is important to discuss the pupils' free-time media use in the classroom (45% of the MT and 54% of the FL teachers partly agreed and 47% of MT and 26% of FL teachers com-

pletely agreed). This is an interesting point in many ways: the nature of the discussion is in no way revealed by the statement and it can well be that the discussion is more "educational" and somewhat more value laden than open, or it can also be that the teachers really want to raise and talk about issues that are relevant for the pupils in their every-day media use. It is, however, quite clear that since there is very little actual use of digital resources in the classroom, the discussion is only realised through words, not through action and examples as part of the learning activities. Furthermore, MT teaching has a long tradition of enlightening pupils about mass media (or "vaccinating them against it") and helping them to become critical and culturally civilised citizens (cf. Masterman, 1985; Herkman, 2005).

Pupils' free time activities in the digital domain

When it comes to the pupils' free-time, the new media is the most important way of spending time and existing (see Figure 4 where pupils indicate their use of digital resources). They spend a lot of time in various online communities and/or playing online games. Only less than 6% of the pupils report not using any online resources. Even if there are clear differences between the girls and boys, they still have a very strong online presence.

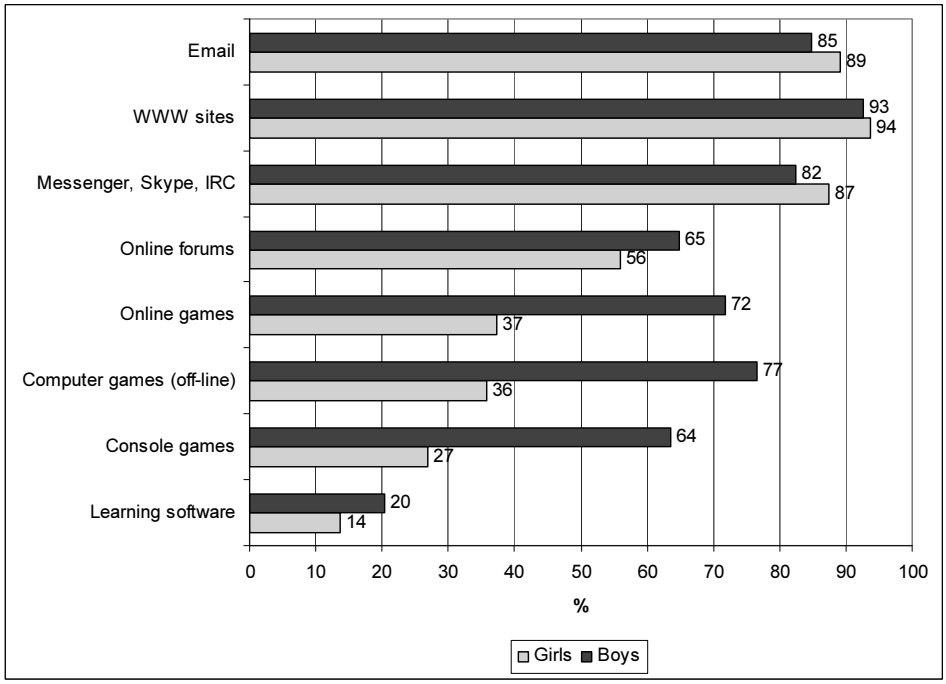

Figure 4. Digital activities of the pupils.

Dedicated learning sites are not very frequently used, but many of the sites the pupils visit are in other languages than their mother tongue. This fact alone is significant for foreign language teaching. The teachers' free time media use is more instrumental and there is a practical purpose for most of the use: the Internet is for finding information, taking care of certain everyday chores (banking, checking timetables and filling in forms), whereas the pupils' use is mainly social and relates to their hobbies. Online gaming is typical for boys mostly, the teachers play very little and more than half of the girls (60%) do not play either. The main divider between the teachers and their pupils lies notably in between the use and non-use of social media.

7. Discussion

The task of basic education in Finland is to foster diversified growth, learning, and a healthy sense of self-esteem so that pupils are able to build the knowledge and skills they need in life, become capable of further study and become involved citizens who develop a democratic society (National Board of Education, 2004). To achieve this goal in the current turbulent and constantly changing times, the fundamentals of teaching should also reflect these changes. As the results presented in this article indicate, the gap between the out-of-school and in-school contexts is growing when we look at the foundation on which learning and literacy practices is based. Textbooks and other print-based materials dominate the school whereas a quite dynamic and multilayered digital world is the reality of pupils outside school. Similar results have been gained from previous studies (Law et al., 2008, ITU monitor 2007; EU barometer; IT i skolan 2006) as well, and it seems that any comprehensive studies in the Western world will continue to reinforce these results. Even if most of these studies can state an increase in the actual use of ICT in schools, very few can detect changes in classroom practices. This seems especially true when it comes to language classrooms.

It is quite understandable and acceptable even, that the use of traditional printed media forms the basis of reading and writing activities in school. In the Lankshear and Knobel terminology the problem lies in the way these materials and media are used: it clearly falls closer to the traditional mindset in which the knowledge is treated primarily in terms of transmission and repetition. According to the results of this study, the learners write mainly traditional essays in the MT classroom and speak scripted dialogues in the FL classroom. This refers to a quite static mindset and features of, for instance, joint knowledge construction or individualised learning cannot be easily detected. This also indicates that the pupils' access to any new types of materials and their authorship of learning content are limited in the school context (see also Figure 2). It is obvious that the situation in the school context differs from the out-of-school context where the pupils at least have access to a multitude of digital materials and activities.

There can be a number of reasons for the void in extensive media/ICT use, especially in the language classroom, and one of the possible reasons for this could be the lack of solid, pedagogically sound digital learning resources (that would not be mere sets of exercises). Whatever the reason, however, this lack of resources cannot alone explain the narrow approach to media as at the same time the teachers report fairly non-committal attitudes towards media use in class along with low interest in developing their own media skills. The teachers with neutral or negative attitudes are bound to use materials either to replace existing activities and materials, or may resort to a ready-made learning package without really changing anything else in the learning setting (see for instance Cuban, 2001).

Both basic and further education for teachers play a crucial role in changing the status quo. Teacher education in Finland is still based on somewhat traditional perceptions of language and pedagogy which means that prospective teachers do not need to change their existing conceptions and can lean on their own learning histories to teach the way they have themselves been taught. Thus, the repetitive circle lurks around the corner and is dangerously easy to succumb to. Also, further education is needed in the area, but not with a technology and materials emphasis, but with a pedagogical approach to literacy, assessment practices and learner empowerment. It is clear that the issue is not about learning resources or technology skills, but about a cultural change in pedagogical practices; approaches to learning and to language. Current classroom practices (or school culture even) do not seem to take into account individual needs, differences and interests on a broader spectrum. This means that the potential of the learners is not activated in terms of motivation and commitment through offering them multiple representations of learning content, activities and individual choice. The momentum is lost for some of the pupils.

When striving to widen the media landscape and incorporate a more open approach to knowledge in schools, it is not a matter of pushing one button or "fixing" a particular issue. It is to do with a systemic phenomenon that deals with the whole concept and structure of education. First of all, a "multimodal mindset" should lie beneath not only the choices of learning materials, but beneath the whole pedagogical culture. By this multimodal mindset we mean a pedagogically regulated thinking that encompasses the core subject matter along with the curricular goals and the unwritten rules of school while having a genuinely embedded idea of well-motivated use of media to support the processes of learning both individually and collaboratively. It seems that the teaching and use of media and literacy is seen as something separate from day-to-day teaching, something that is carried out during thematic project weeks or in computer rooms during designated lessons. Furthermore, in this line of thinking, there are no predeterminedly good or bad learning resources; it is all about the learning design within which the materials are used. Second, the curriculum should provide a more concrete and systematic description

of the role of media, assessment and "multimodal" learning goals, not only for languages, but across all school subjects. Third, to promote the autonomous and self-directed learning required in future society, more weight needs to be put on collaborative working modes and process-oriented learning with multiple strategies. Also, some of the informal learning practices should be allowed to feed into the formal learning setting by including completely new ways of communication, information sharing and social belonging. If not, the gap between in-school and out-of-school literacies and learning will grow even more.

Notes

1 The project is funded by the Academy Finland and more information can be found at: http://www.jyu.fi/tolp

2 It is important to realise that multimodality in this context is not linked to the ideas presented by Kress et al. as the focus of inquiry is not on texts and their characteristics, but on the nature of activities in the classroom.

3 The sample of schools is based on two-phase cluster sampling, thus it represents the Finnish school context in terms of geography and population density. The student data from these schools was collected during the lessons which has resulted in the very high response rate of 86%. In order to balance the gender bias of student data, the weighting coefficient was calculated. The sample of teachers is indepent of the student sampling and is based on simple random sampling from the registers of the national associations of mother tongue and foreign language teachers. The teacher data was collected with questionnaires that were mailed to the teachers. This can be seen in the relatively low response rates: 41,7% for the mother tongue teachers and 32,5% for the foreign language teachers.

4 In our data, the pupil replies are quite aligned with those of the teachers, even if the pupils' responses indicate less variation in use of materials than those expressed in the teachers' replies.

5 Mother tongue teachers are hereafter referred to by the abbreviation "MT" and foreign language teachers respectively by "FL". Mother tongue refers to either Finnish or Swedish depending on the pupil's first language.

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