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More than writing on the wall – An examination of writing and image in a Finnish primary and secondary level learning environment

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Abstract:

This article is dedicated to the analysis of visual multimodality and agency in a school unit situated in Southwestern Finland. In this article the school unit is approached as a node of intersecting discourses and its visible features are investigated as materialized discourses. The results indicate that writing is the preferred mode of visual expression in this learning environment and that there is a shift in modes from image to writing as students progress in the school system, which reflects the existing de jure educational discourses. Moreover, while teachers and school staff are the most active agents in the school unit, the assessment of multimodality indicates that students appear more passive than they are if research focuses only on writing. Moreover, not taking images into account risks reinforcing the traditional notion of writing as the only proper form of expression.

Keywords: discourse; education; identity; landscape; ‘schoolscape’; materialization; multimodality

1. Introduction

This article investigates visually materialized discourses that pertain to the production of writing and images in a school unit located in an urban municipality in Southwest Finland. This learning environment has been previously investigated by the author (Savela 2018a, 2019). The findings of these studies indicate that teachers and school staff are largely responsible for the materialization of these discourses in this school landscape, whereas students are effectively relegated into acting as a passive audience (see also Kress et al. 2004: 37–69), especially if they struggle to express themselves in writing in Finnish or English (see also Szabó 2018: 185–186). The problem with these previous investigations (Savela 2018a, 2019) is that focusing solely on one mode, one socially and culturally

shaped resource for meaning making (Kress et al. 2004: 2), not only ignores much of the apparent visual complexity of our surroundings, but it may also risk overemphasizing student passivity, as well as reinforce the traditional notion of writing as the only proper mode of expression (Kress and Selander 2012: 268), which is particularly problematic in educational contexts (Lehtonen 2002: 57–58). Therefore this study functions to address these limitations present in the author’s previous work.

The article seeks to answer three research questions. Firstly, how writing and image are present in the school unit? Secondly, how does the inclusion or exclusion of image affect the findings, especially with regard to the involvement of students in the school unit? Thirdly, what educational discourses are materialized in the school unit?

The first question is dedicated to providing a broad overview and indicating patterns in the data. The second question pertains to contrasting the findings with the author’s (Savela 2018a, 2019) previous work in which students are identified as passive in the school landscape. The third and most important question assesses the fieldwork findings and contrasts them with archival findings of de jure educational discourses.

The first part of this article contextualizes the present study in relation to recent schoolscape literature that pertains to the study of learning environments. The second part establishes the conceptual framework that combines schoolscape studies, discursive landscape studies, mediated discourse analysis (MDA) and visual content analysis. The third part examines the relevant discourses, namely key pieces of legislation and the core curricula pertaining to primary and secondary education. The fourth part of this article addresses the materials and methods. This part illustrates the methods applied in the analysis of visual multimodality and agency. The fifth part examines the data, followed by a discussion in part six of the findings, including contrasting them with the relevant discourses.

2. Conceptual framework

There is a small but growing body of research that focuses on institutional learning environments as landscapes or ‘schoolscapes’. Many recent studies illustrate the educational potential of learning environments (Malinowski 2015; Menken et al. 2018) and/or emphasize their importance in the

formation of identities (Brown 2018; Dressler 2015; From and Holm 2019; From and Sahlström 2017; Garvin and Eisenhower 2016; Pakarinen and Björklund 2018). These studies are predominantly qualitative and they tend to focus on written language. Taking cues from Cohen's (1971) and Johnson's (1980) pioneering work, the qualitative studies conducted by Laihonen and Tódor (2017), Laihonen and Szabó (2016), Szabó (2015, 2018), and Szabó and Troyer (2020) assess the use of image alongside writing in order to analyze how learning environments shape student identities. This study is similar to them in this regard, albeit none of these studies focus exclusively on visual multimodality.

Similarly to Amara (2018), Bellinzona (2018) and Gorter and Cenoz (2015), this article also differs from most existing studies that focus on institutional learning environments by being quantitative rather than qualitative. The advantages of quantitative studies are that they provide broad overviews, identify patterns and protect research from erroneous generalizations (Blommaert 2013: 2; Laihonen and Szabó 2016: 122). I study various everyday items put on display in the school unit, such as decorations, health and safety signage, learning materials, notice board announcements, posters, placards and student art works as *frozen mediated actions* (Norris 2004), and assess how they inform the landscape, while simultaneously being obscured by it. I utilize visual content analysis (Krippendorff 2018) in order to make it possible to assess large amounts of rich qualitative data quantitatively and abductively infer plausible conclusions from the findings.

Similarly to Årman (2018), my own approach is markedly discursive and thus firmly rooted in practice. I follow Foucault's (1972: 49) definition of *discourse* as the "practices that systematically form the objects of which they speak" as it allows a system to be understood as a patterned regime or a historical formation (Blommaert and Huang 2013: 34). My own conceptual framework (Savela 2018b) is similar to the mediated discourse analysis frameworks utilized by, for example, Pietikäinen (2015), Pietikäinen et al. (2011), Schein (1997, 2010), Scollon (2001, 2008) and Scollon and Wong Scollon (2003). These frameworks treat landscape as a nexus of practice, as a node of intersecting discourses, and the discourses are seen as having a normalizing effect on people once they are materialized in their surroundings. Similar to Schein (1997, 2010), this study consists of consists of archival research, examining the relevant educational discourses that pertain to writing and image, and fieldwork, identifying the materialized discourses, followed by contrasting these archive and fieldwork findings.

What also distinguishes the present study is the explicit emphasis on space and landscape, an issue which has been largely ignored, neglected or disregarded in many existing studies. They tend to treat *space* as a mere container and *landscape* as a nominal entity within space, as recently acknowledged by Thurlow (2019: 99, 112). I consider space to be socially produced (Lefebvre 1991) and landscape to function as a model of how the environment should look according to dominant social categories (Duncan 1989: 186), as a way of seeing (Cosgrove 1985) that reduces the complexity of one's everyday surroundings into a redundant invitation to look at nothing in particular, to look at a totality, a gestalt, which is irreducible to its particulars (Mitchell 2002b: vii–viii). This indeterminacy, pervasiveness and subtlety make landscape a particularly useful and effective medium of influence (Mitchell 2002a: 5, 2002b: vii). In other words, as people tend to assess their surroundings uncritically (Lewis 1979: 11), landscape lends itself to exerting pressure on people to conform with the norms of the society, to instilling desirable proprieties in people (Matless 2016).

But why study various practices, that is to say what people are in the habit of doing, through their surroundings rather than observing people or gathering information from the people themselves? The answer to this question that will surely arise is two-fold. Firstly, in accordance with Bourdieu (1977: 164), asking people to consciously engage with the surroundings and its particulars is at odds with their naive disposition towards their surroundings. Simply put, by involving them, one risks projecting one's own sense of reality on them, thus providing expert accounts in the guise of non-expert accounts. Secondly, as stated by Lewis (1979: 12), "landscape is our unwitting autobiography, reflecting our tastes, our values, our aspirations, and even our fears, in tangible, visible form"; hence it is a record of our actions "that is liable to be more truthful than most autobiographies because we are less self-conscious about how we describe ourselves." Moreover, as aptly expressed by Lewis (1979: 12), "[a]ll our cultural warts and blemishes are there, and our glories, too; but above all, our ordinary day to day qualities are exhibited for anybody to who wants to find them and knows how to look for them." Of course, one could still involve others in the assessment. However, as further elaborated by Lewis (1979: 12), the problem with that is that unlike books, our surroundings are not composed like books and are thus not meant to be read. It is not that one cannot learn to read them, but rather that it is a particularly difficult skill to hone due to the conceptual complexity involved, as experienced by the author, to whom it took years to come to terms with the concept of landscape.

3. The archives – de jure discourses on primary and secondary level education

In Finland compulsory basic education consists of grades 1 to 9 (Basic Education Act 628/1998). Due to the existing school infrastructure in place and the required teaching qualifications (Government Decree 986/1998), grades 1 to 6 are generally referred to as primary education and grades 7 to 9 as lower secondary education. This split is no longer officially recognized but it is nevertheless largely the case in practice. Three-year voluntary upper secondary education follows compulsory education (Upper Secondary Schools Act 629/1998).

The syllabuses for the compulsory basic education and voluntary upper secondary education (Basic Education Act 628/1998: 11 §; Upper Secondary Schools Act 629/1998: 7 §) consist of subjects listed in this order in Tables 1 and 2.

| Subject |
|--------------------------------------|
| Mother tongue and literature |
| The second national language |
| Foreign languages |
| Environmental studies |
| Health education |
| Religious education or ethics |
| History |
| Social studies |
| Mathematics |
| Physics |
| Chemistry |
| Biology |
| Geography |
| Physical education |
| Music |
| Art |
| Crafts |
| Home economics |

Table 1. Basic education syllabus

| Subject |
|-------------------------------------|
| Mother tongue and literature |
| The second national language |
| Foreign languages |
| Sciences |
| Arts and social sciences |
| Religion or ethics |
| Physical education |
| Art |
| Health Education |

Table 2. Upper secondary education syllabus

It is clear from the syllabuses that writing is given priority over image, with particular priority given to languages. This is justified on basis that the development of language is to be given priority in education (Government Decree 1435/2001: 3 §). Most closely associated with the production of

images, arts is listed third from last in the basic education syllabus and second from last in the upper secondary education syllabus. Moreover, crafts is available only in basic education. Furthermore, unlike in the context of basic education, there is hardly any mention of the importance of arts and crafts as skills in upper secondary education (Government Decree 955/2002: 3–4 §). The marginal and diminishing position of arts and crafts in Finnish and primary education is also identified in the few existing studies on this matter (Pöllänen 2011; Räsänen 2008).

The modal priority given to writing over image can also be identified in the allocation of lesson hours in compulsory education (Government Decree 1435/2001, 955/2002; FNBE 2004: 138–145, 304). This is summarized in Table 3.

| Subject | Units (=38h) | Hours | % |
|----------------------------------|--------------|-------------|-------------|
| Mother tongue | 42 | 1596 | 19% |
| Language 1 (compulsory) | 16 | 608 | 7% |
| Language 2 (optional) | 12 | 456 | 5% |
| Language 3 (compulsory) | 6 | 228 | 3% |
| Language 4 (optional) | 4 | 152 | 2% |
| Mathematics | 32 | 1216 | 14% |
| Environmental / natural sciences | 31 | 1178 | 14% |
| Religion / ethics | 11 | 418 | 5% |
| History / social sciences | 10 | 380 | 4% |
| Music | 7 | 266 | 3% |
| Arts | 8 | 304 | 4% |
| Crafts | 11 | 418 | 5% |
| Physical education | 18 | 684 | 8% |
| Home economics | 3 | 114 | 1% |
| Guidance counseling | 2 | 76 | 1% |
| Optional subjects | 13 | 494 | 6% |
| Total | 226 | 8588 | 100% |

Table 3. Allocation of lesson hours in basic education

It is clear that languages are given clear priority, followed by mathematics and natural sciences. The mandatory language subjects make up a nearly third of the lesson hours. In stark contrast, the most image oriented subjects, arts and crafts, make up less than ten percent of the lesson hours, throughout the nine years of compulsory education. Relevant to arts and crafts, a school must provide voluntary education in arts and crafts for a minimum of 2 units in arts and another 2 units in crafts for a total of 4

units (152 hours) in arts and crafts, as part of the optional subjects. Moreover, it is worth noting that the teaching provided in arts and crafts is not evenly distributed during the nine years of compulsory education and the lessons are largely allocated to the primary level (Government Decree 1435/2001: 6 §; FNBE 2004: 304).

In upper secondary education, a unit is a course that, on average, consists of 38 lesson hours (Upper Secondary School Decree 810/1998). In contrast to basic education, the students can choose more freely between different subjects. During a typical three-year-period a student must complete 75 courses, of which 47 to 51 are mandatory (Government Decree 955/2002, 8 §). Table 4 illustrates the courses.

| Subject | Compulsory units (=38h) | Optional units (=38h) |
|------------------------|-------------------------|-----------------------|
| Mother tongue | 6 | 3 |
| Language 1 | 6 | 2 |
| Language 2 | 5 | 2 |
| Other languages | 0 | 16 |
| Mathematics (basic) | 6 | 2 |
| Mathematics (advanced) | 10 | 3 |
| Biology | 2 | 3 |
| Geography | 2 | 3 |
| Physics | 1 | 7 |
| Chemistry | 1 | 7 |
| Religion / ethics | 3 | 2 |
| Psychology | 1 | 4 |
| Philosophy | 1 | 3 |
| History | 4 | 2 |
| Social sciences | 2 | 2 |
| Physical education | 2 | 3 |
| Music | 1 or 2 | 3 |
| Arts | 1 or 2 | 3 |
| Health education | 1 | 2 |
| Guidance counseling | 1 | 1 |

Table 4. Allocation of lesson hours in upper secondary education

Comparing Tables 3 and 4, it appears that basic education is rather rigid in comparison to the upper secondary education. At the upper secondary level the students may specialise more based on their

interests. However, particularly relevant to this article, the number of arts courses is very low at the upper secondary level.

The education legislation and the national core curricula steer education in schools. Schools are, however, allowed to deviate from the national framework to a limited extent in their local curricula (FNBE 2003: 8, 2004: 10). This makes it possible to emphasize certain subjects in the curricula, albeit only to a limited degree. Furthermore, schools are allowed to provide more lessons or courses in any subject, if they choose to do so, pending budget constraints, of course.

4. Framework in place – methodology and data

4.1. The site of investigation and items as frozen actions

This article investigates the same school unit discussed in Savela (2018a, 2019). In summary, it is a large school unit offering compulsory basic education (grades 1 to 9) and voluntary upper secondary education (grades 1 to 3). It hosts approximately 800 to 900 students each year, of which some 300 are primary level students (grades 1 to 6), 250 are lower secondary level students (grades 7 to 9) and another 250 are upper secondary level students. With regard to deviations to the national core curricula, the school unit offers a wide variety of languages to its students. In basic education language learning is further supplemented by an optional English track (grades 1 to 9). Other optional tracks include media studies (grades 1 to 6), science studies (grades 1 to 9) and arts (grades 1 to 6). The upper secondary unit has an English language program but no specialized tracks.

The investigated areas consist of the school yard, the immediate exterior surroundings, the entrances, corridors, staircases, sports facilities, a cafeteria, an auditorium, 39 basic level classrooms (21 for students on grades 1 to 6 and 18 for students on grades 7 to 9), 9 secondary level classrooms and two classrooms shared by the lower secondary and the upper secondary levels. The data gathering was conducted solely by the author in the spring of 2015. The gathering conformed to the Personal Data Act (523/1999) and the principles set by the Finnish Advisory Board on Research Integrity (2009). Therefore no areas where privacy is expected, such as changing rooms and toilets, were included in the data. Moreover, for this same reason the school unit is not identified in this article and all information

pertaining to it is kept to a bare minimum.

The items investigated in this article were photographed with a digital camera. The images were then imported into a collection in Adobe Lightroom. Each photo was categorized in the collection according to where it was taken in order to ensure that no data was missing. In the case an image was deemed insufficient in quality, resulting in illegibility, item was photographed again and cross-referenced with the data in order to avoid duplicates.

The first round of post-processing resulted in a collection of 2373 photos gathered in a ten day span. It was followed by a second round of post-processing in which the photos were inspected again in GNU Image Manipulation Program and split into 6016 units of analysis. Figure 1 illustrates a typical unit of analysis.



Figure 1. Markings on a lavatory door

Figure 1 depicts a white door with black taping on it. In this article each unit of analysis is defined as a frozen mediated action made up of larger higher-level and smaller lower-level actions (Norris 2004: 13–15). For example, figure 1 could be assessed as containing one larger high-level frozen action, as well as two smaller lower-level actions, separating the writing and the pictogram. One could, of course,

also link this to further lower-level actions and higher-level actions in a cascading sequence. In this case, however, the relevant level of assessment is the higher-level which indicates that behind this door one finds a lavatory intended to be used exclusively by women.

In summary, a unit of analysis is understood as a chain of actions that appear to be frozen in time; “[t]hese actions are frozen in the material objects themselves and are therefore evident” (Norris 2004: 14). To be clear, what we encounter in the world are “physical entities that unfold a semiotic potential” which, of course, varies depending on the prior experiences of those who engage with them, as explained by Kailuweit (2019: 134). In other words, the engagements with frozen actions are always bracketed by our shared lower limit of understanding in meaning making, our collective experience (Voloshinov 1973: 101–102). Frozen actions can therefore be defined as discursive objects due to how they make sense within a set of systematic practices (Foucault 1972: 49).

Following the second round of post-processing, the data was then entered into a database, the content was analyzed and annotated by the author according to 22 different categories in LibreOffice Base. As recommended by Krippendorff (2018: 90–91) and elaborated in detail in Savela (2018b), the annotation scheme was developed during an interpretative annotation process in which theory and practice functioned in reciprocal presupposition, one always informing the other. The units were not classified according to size due to the complexity involved in visual attention, consisting of other *bottom-up factors* that influence visual salience, such as curvature, colour, contrast, luminance, motion, orientation and reflectance, and task-driven *top-down factors*, such as knowledge and expectations (Wilson et al. 2015: 235–237). Following the annotation, the database was loaded into SPSS Statistics software package in order to study the frequencies and the associations between categories.

4.2. Agency

Contrary to Bellinzona (2018) and Gorter and Cenoz (2015) who opt for a top-down and bottom-up categorization of agency, I distinguish between groups of people whose actions are considered to be frozen in the items. Moreover, I rely on the Derridean distinction between designers, who created or produced a certain item, and issuers, who put that item on display (Derrida 1987, 1988). In this article I focus on the issuers as items created by some can always be reappropriated by others. Distinguishing

between the two allows one to identify, for example, to what extent teachers utilize prefabricated learning materials designed by others, as discussed in Savela (2019). Moreover, the items we encounter function independent of their creators; the works are always orphaned at their birth and they are capable of operating in the absence of their creators, as well as even against the will of their creators, as explained by Derrida (1988: 8). Therefore the items themselves act upon people as speech acts, attributing them with illocutionary force, ordering the people who encounter them to act in a certain way to them, thus having a perlocutionary effect on the people, as elaborated by Kailuweit (2019: 137). This emphasizes the importance of assessing the item issuers, as done in this article.

As discussed in Savela (2018a, 2018b, 2019), agency can be further addressed by taking into account the level of education. In this study it is highly fortunate that this school unit is largely divided into physically separate primary, lower secondary and upper secondary areas as that permits assessing the data by the level of education. This means that not only is it possible to examine, for example, the differences between the items issued by teachers and students but also the differences within these groups of people.

4.3. Assessing the issuers of items

It is worth noting that as a qualified primary and secondary level teacher, and as a product of the Finnish education system, I had few problems assessing the issuers of items, even though the process is sometimes challenging. The world around us is a perpetual work in progress, containing various elements from various eras, issued by various people, many of whom are no longer present to be consulted (Blommaert 2013: 47; Lewis 1979: 12; Schein 1997: 662, 2010: 222). One is left to investigate the items without recourse to the people who put them on display. However, as expressed by Blommaert (2013: 45–46), luckily determining the issuer of items “is not rocket science” as each item indexes the past, pointing backwards to origins, the future, pointing towards the intended audience and the uptake, and the present, the context where the item appears, as illustrated by Figure 2.



Figure 2. A poster on a corridor notice board

The poster in Figure 2 is designed by a company branded as ‘ekonomivalmennus.fi’. While it could have been put on display by a student or a member of the school staff, it is likely that it has been issued by a representative of the company, as indexed not only by its content, being an advertisement, and its form, the material quality of the item, but also by its placement on a notice board located in a corridor accessible to outsiders. In this study, in the vast majority of cases assessing the issuer was a fairly straightforward task. Figures 3, 4 and 5 further illustrate this.



Figure 3. Writing on a wall, accompanied by a heart shape



Figure 4. A sheet of paper attached to a door

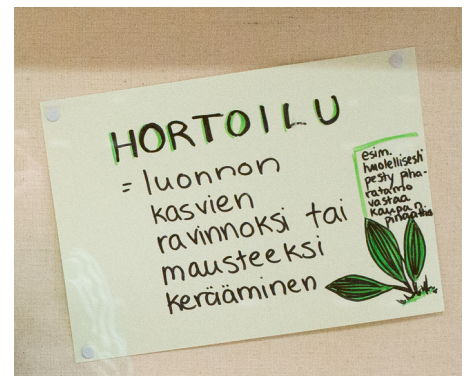


Figure 5. A placard blu-tacked to a wall

Figure 3, previously presented in Savela (2018b: 33), depicts writing on a corridor wall, accompanied by a heart shape. It is unlikely that a teacher or a public servant has defaced the wall and therefore it is interpreted as having been issued by a student. Figure 4 depicts simple written instructions laminated to a corridor door, indicating that students may access the room only when accompanied by a teacher. Figure 5 depicts learning material blu-tacked to a corridor wall and contains writing that indicates that horticulture has to do with gathering plants, to be eaten or used as spices, accompanied by drawing of a plant. The content and the form, the materials used and the presentation, as well as the placement of these items depicted in Figures 4 and 5 indicate that these are issued by teachers. There were, however, certain problematic cases that required more attention. Figure 6 illustrates this.



Figure 6. A no smoking sign bolted to a wall

The ‘no smoking’ sign depicted in Figure 6 has been put in place by public servants representing the school, yet others, possibly students, have subsequently attempted to deface it. While it is possible to add a secondary issuer category to take this into account, it would imply collaborative effort, which would not apply in all cases and thus cause inconsistency. In terms used by Norris (2004: 13–15), what matters in this case is that the higher-level ‘no smoking’ action, itself consisting of two lower-level actions, the lit cigarette and the indicator of prohibition, embedded in frozen action has not been altered, despite the embedding of additional lower-level actions, the graffiti. If this was not the case, the graffiti on the heavily worn sign would have been scrubbed off a long time ago. Therefore this is classified as having been issued by public servants.

4.4. Assessing writing and image

In this article, the assessment of visual multimodality is limited to examining the apparition of writing and image on the various items. To be more specific, each item is annotated according to whether it contains writing and/or image. If it contains both, the mode salience is indicated by the order of appearance: writing and image or image and writing. One mode is prioritized over the other mode on the basis of code preference, judged by text size, contrast, quantity or composition, as presented by Scollon and Wong Scollon (2003: 116–128). To be clear composition is based on attributing salience by center-margin, ideal-real and given-new compositions, in which the center, the top and the right side are considered more salient than the margin, the bottom or the left side, as presented by Kress and van Leeuwen (2006: 179–197).

To exemplify the classification, the unit of analysis in Figure 1 is classified as writing and image as judged by composition (ideal/real), the writing being situated in the preferred position (ideal) above the pictogram (real). The same criteria apply to the poster advertising university entrance exam prep courses in Figure 2. Conversely, the green and white sign indicating an emergency exit route in Figure 7 illustrates a typical case of image and writing:



Figure 7. An emergency exit sign mounted on a wall

Emergency exit signs are standardized and their visual integrity should not be infringed upon, yet in

actuality many of them contain additional markings. In this case, the bottom left corner contains '213215', perhaps a manufacturing code, and the bottom right corner contains 'Tempus', likely indicating either a brand or a manufacturer. In this case, prioritizing image over writing is based on size, albeit it is also partially a matter of composition. This judgment also applies to many works of art, where the author has marked the work with a name or with initials, at times accompanied by other writing. Figures 8 and 9 illustrate the use of only one mode.



Figure 8. A fire hose reel sign on a cabinet door



Figure 9. A metal sign bolted to a wall

Figure 8 contains a pictogram sticker depicting a fire hose reel. It is categorized as containing only image. Similar judgment applies to Figure 9 which depicts a letter B painted on to a metal sign bolted to a wall. It is judged as containing only writing. Some cases are more problematic. For example, Figure 6 depicts a standardized 'no smoking' sign that has been vandalized a number of times, containing various bits of writing, including a bit that possibly once stood for 'Eagle'. It contains both image and writing but it is by no means unproblematic to judge it as image and writing as the writing, legible or not, partly obscures the pictogram. In this case it can be argued that image still holds primacy over writing, as judged according to the center-periphery composition, the crossed out cigarette being placed in the center, or according to how the industrial colors have remained vivid whereas the writing applied with markers has faded.

5. Analysis

Each unit of analysis (n=6016) was annotated by mode and mode salience. Figure 10 illustrates the overall use of the two modes in the school unit.

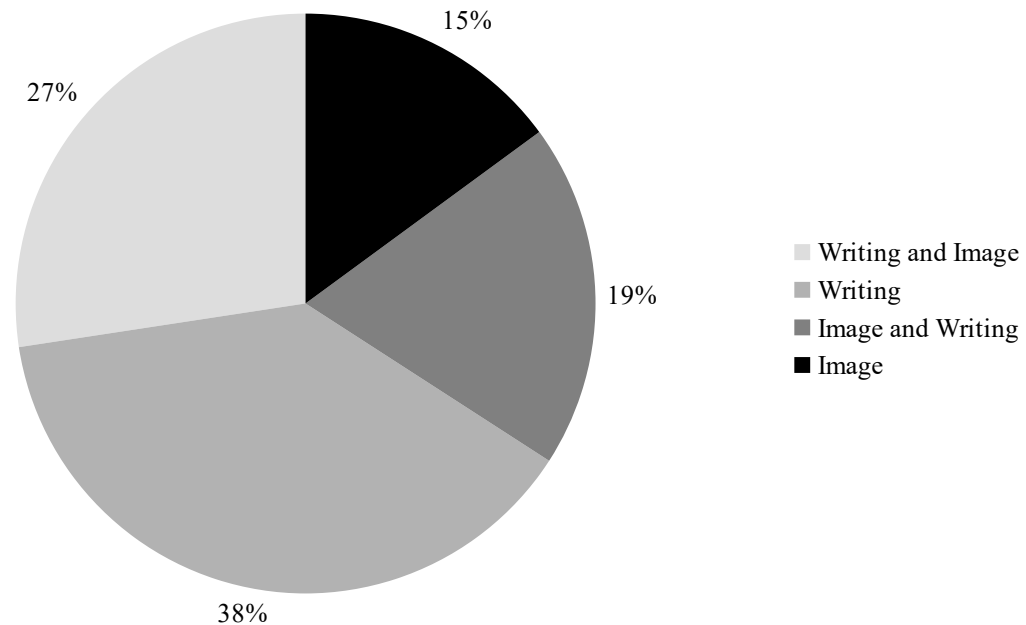


Figure 10. Modes in the school unit

It is clear from Figure 10 that writing is the dominant visual mode in the school unit; 38 percent of the items in contain only writing (n=2313). Moreover, further 27 percent of the items (n=1649) contain writing as the dominant mode accompanied by the use of image. Together these make up 65 percent of the items (n=3962). Conversely, the use of image represents only 15 percent of the items (n=899), supplemented by a further 19 percent of items (n=1155) that contain image as the dominant mode, supplemented by writing. Together these make up 34 percent of the items (n=2054). If all uses of a mode are taken into account, 85 percent of all items contain writing (n=5117), whereas image is used in only 62 percent of the items (n=3703). Items containing only one mode represent 53 percent of the total number of items (n=3212), whereas items that contain both modes represent 47 percent of the items (n=2804). In summary, regardless of how the data is examined, writing appears to be the dominant visual mode in the school unit.

Figure 10 indicates only the overall use of writing and image in the school unit, but it ignores who issued the items that contain writing and/or image. Figure 11 addresses this by illustrating the use of the two modes by issuer (n=6016).

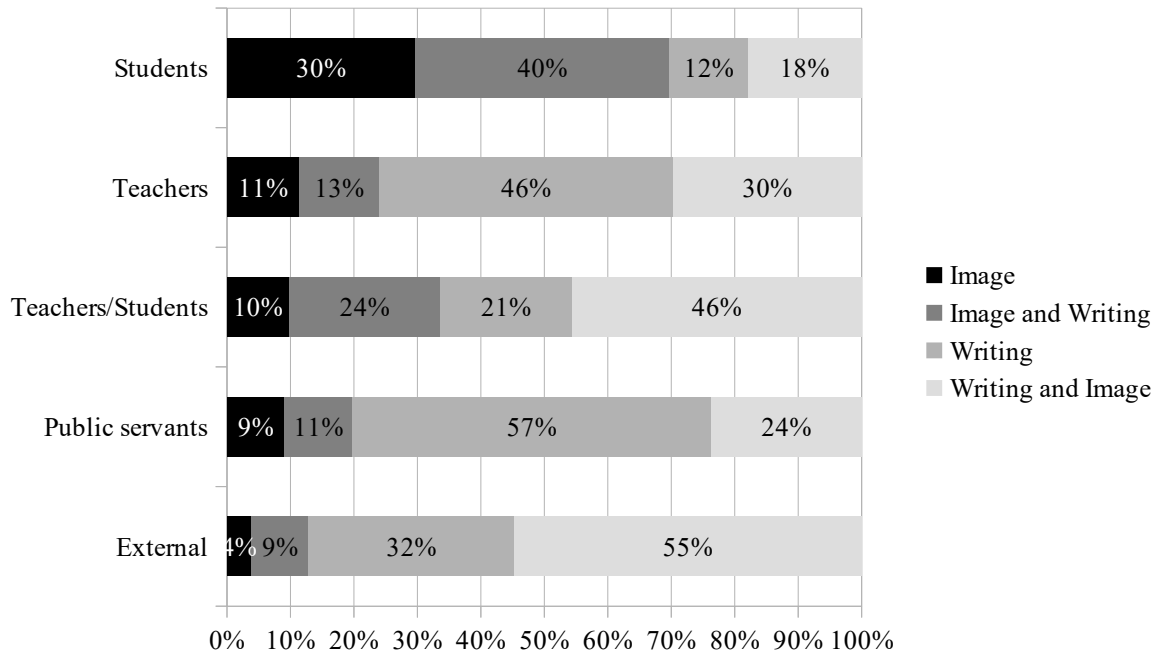


Figure 11. Modes by issuer

Figure 11 illustrates that, similarly to the overall pattern, the teachers (n=2431) primarily issue items that contain writing, as well as writing and image. Similarly to the teachers, the public servants (n=1459), namely other school personnel, issue items that tend to contain writing, supplemented by items that contain writing and image, as illustrated in Figures 5, 7 and 8. In contrast to these two groups, and the overall pattern, the students (n=1561) are marked by the use of image. They do make use of writing as well, but more as a secondary mode. The items issued by external participants (n=473) differ from the overall data pattern as well as from the other participants. Their use of modes is marked by their use of writing supplemented by the use of image. The teachers/students as issuers (n=92) category bears resemblance to teachers and students as these items involve cooperation of both participant groups. This combined category will not be further examined on its own due to the small amount of data. It will, however, be addressed again in relation to students and teachers when the data

is further aggregated. Figure 11 ignores the level of education; this is addressed in Figure 12, which illustrates writing and image on different levels of education (n=4754).

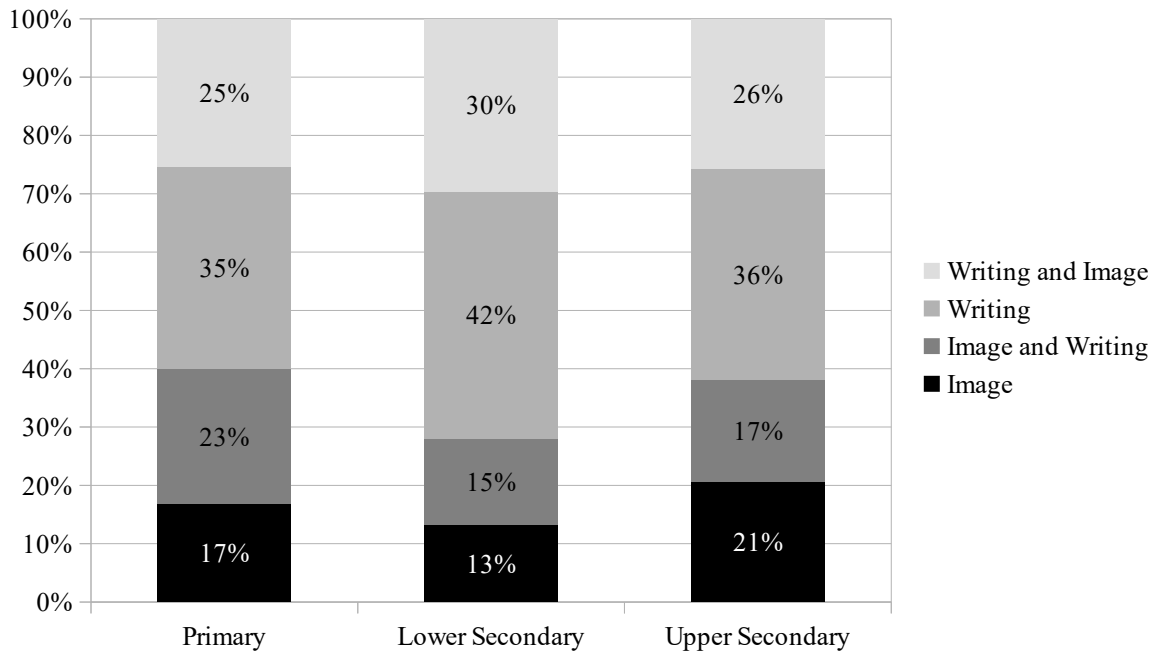


Figure 12. Modes by level of education

Figure 12 illustrates how dominant the use of writing is in the school unit, regardless of the level of education when the frozen actions of all participants are taken into account. However, it appears that there is a slight shift from the use of image to writing that occurs following the primary level (n=2912), at the lower secondary level (n=1453), with a subsequent reversal of it that occurs at the upper secondary level (n=389).

The limitation of the classification of data presented in Figure 12 is that it does not address who is responsible for any differences. While certainly interesting in their own right, the role of public servants and external participants will not be further examined due to how the items issued by them tend to pertain to recurring school management and health and safety related signs, as illustrated in Figures 6 to 9, as well as to advertising, as earlier illustrated in Figure 2. They will not further assessed in this regard as they are unrelated to the materialization of educational discourses in the landscape. Figure 13 illustrates the use of writing and image by focusing the attention on the key participant

groups, students and teachers, including their collaboratively issued items (n=91), as examined by the level of education (n=3702).

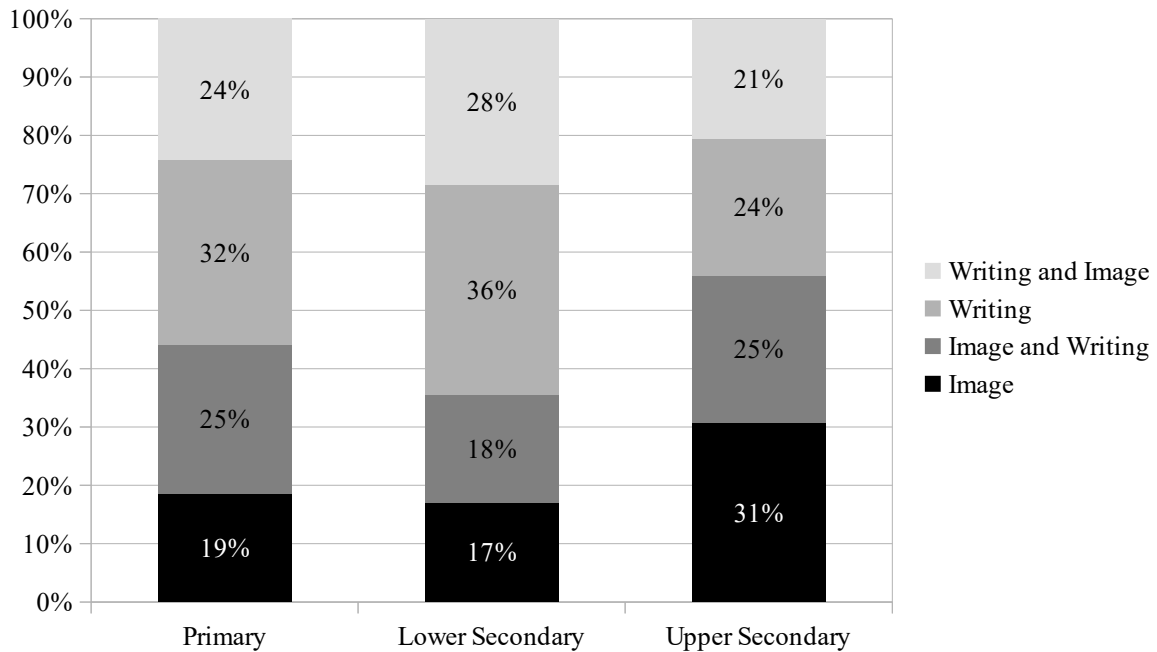


Figure 13. Teacher and student modes by level of education

Figure 13 indicates that there is variation between the levels of education. There is a slight shift from image to writing that occurs after the primary level (n=2491), at the lower secondary level (n=977). However, it seems to be subsequently countered at the upper secondary level (n=234) with a shift from writing to image. The initial shift from image to writing appears to be less pronounced at the lower secondary level, while the reversal of this shift seems more pronounced at the upper secondary level than is the case if all participants are taken into account (and the data assessment is not limited to the involvement of teachers and students at the upper secondary level). As this classification of data does not separate teachers from the students, it is fitting to also examine them separately. Figure 14 demonstrates the use of writing and image in the items issued by students (n=1396).

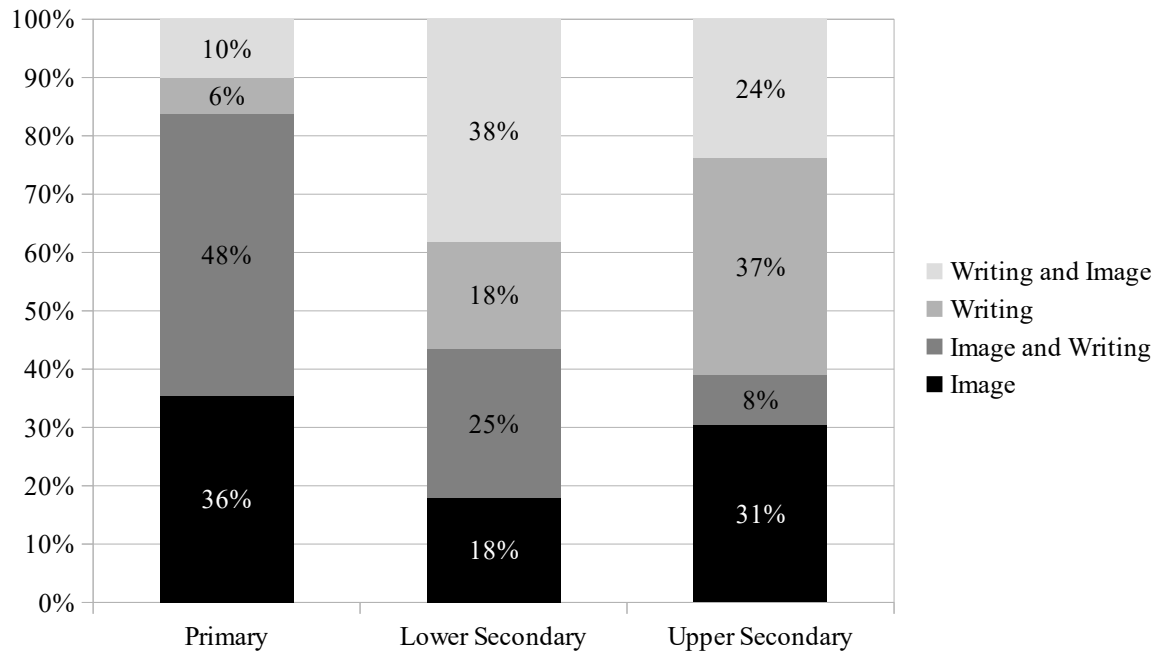


Figure 14. Student modes by level of education

Figure 14 indicates that a shift indeed takes place. To be more specific, the items issued by primary level students (n=980) tend to contain image and writing, as well as image. In contrast, the items issued by lower secondary level students (n=357) tend to contain writing and image, as well as writing, and the items issued by upper secondary level students (n=59) contain both writing and image, but more separately than together. What is notable is the decline in issuing items that are displayed in the school unit. The drop in student participation on the upper secondary level is particularly notable. In order to address the role of teachers with regard to writing and image, Figure 15 illustrates their role in the school unit (n=2216).

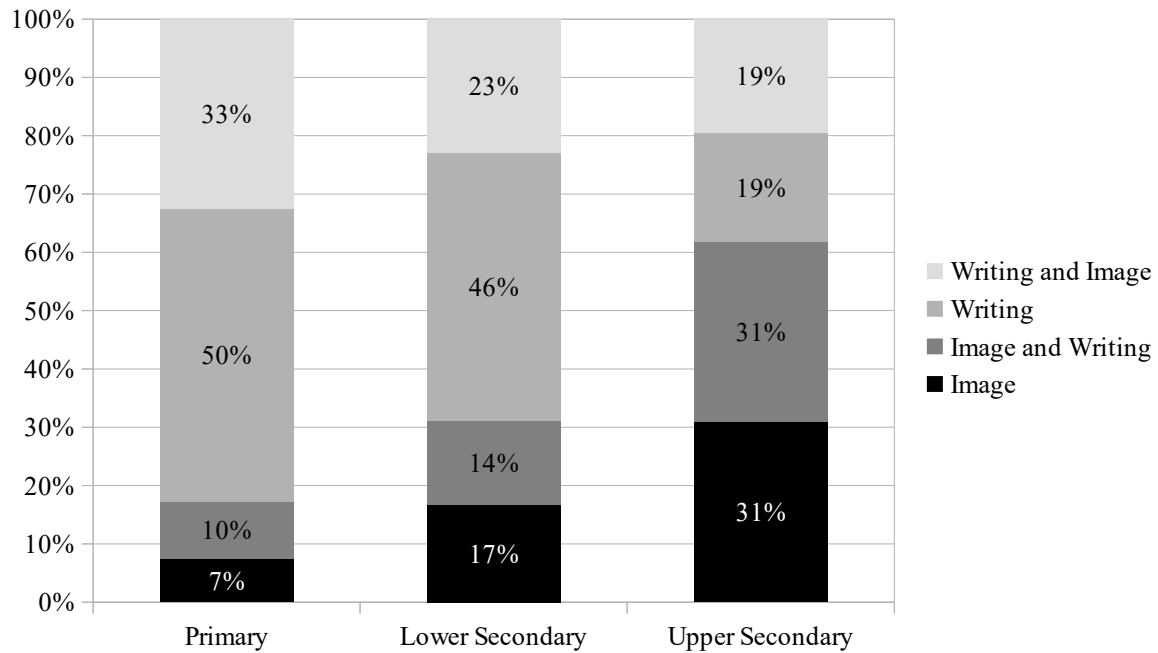


Figure 15. Teacher modes by level of education

In contrast to work by the students, Figure 15 indicates that primary level teachers issue plenty of items containing writing, either on its own or accompanied by images. Moreover, this practice appears to be reversed at the lower secondary level and further amplified at the upper secondary level. In short, contrasting the findings presented in Figures 14 and 15, the students and teachers appear to exhibit contrary behavior, which explains the less pronounced shifts in the data when they are examined together, as illustrated in Figure 13. It is, however, also worth noting that, similarly to what is forthcoming from the students, the number of items issued by upper secondary level teachers is low (n=175) in comparison to the number of items issued by lower secondary level teachers (n=617) and primary level teachers (n=1424).

6. Discussion and conclusion

My interest in the school landscape stems from the subtle power it allows to be exerted on people through the reduction of the complexity of their surroundings to a mere aestheticized totality (Mitchell 2002b: vii), which, in turn makes the observers overlook the materialized discourses that function to normalize them, making landscape central to the (re)production of everyday life (Schein 1997: 663). In

my previous studies (Savela 2018a, 2019), this pertained to the normalization of students in terms of their linguistic identities, how they appear to be pushed to express themselves in Finnish and/or English. In the current study, this issue belongs to how the school landscape functions to instill in students that a certain mode of expression is more desirable than others.

The present article provides answers to the set of research questions by examining the various particulars present in the school unit, not individually but in aggregates. Firstly, it is clear that writing is the overall preferred mode of expression and meaning making. However, a closer analysis of the data indicates that the use of writing and image on items differs between participants and levels of education. It is apparent that there is a decrease in the use of image and increase in the use of writing on the items issued by students as they move from the primary level to the secondary level. Furthermore, it seems that teachers counter this at the secondary level by shifting towards greater use of images accompanied by writing. It is, however, also worth noting that the use of image on items is not just decreasing; it also shifts from being creative and expressive to being more specialized and illustrative.

Secondly, the findings indicate that focusing solely on writing in studies examining learning environments overlooks a great deal of data. While the number of items containing only image represents approximately only 15 percent of the total number of items, not taking these items into account would, for example, ignore 30 percent of items issued by students and 36 percent of items issued by primary level students. Moreover, it is worth noting that at the primary level image may well be the only viable mode of expression for many students – which is why focusing solely on writing not only ignores a great deal of their activity but also devalues it.

Thirdly, and most importantly, the findings indicate that educational discourses are materialized in the school unit. There appears to be a shift in modes from image to writing that takes place on the secondary levels of education, which can be understood as the materialization of educational discourses that prioritize writing oriented subjects, especially at the secondary levels of education. Conversely, the results can also be understood as mirroring how subjects that rely on the production of images and three-dimensional objects, in particular in arts and crafts, are at best in a tertiary position in the educational discourses, especially at the secondary levels. Moreover, the materialization of these de jure educational discourses can be seen as reflecting a more general discourse of monomodality that

gives primacy to writing, normalizing it as the proper and desirable mode of visual expression and as a sign of adulthood; by contrast, image is treated as an improper and undesirable mode of visual expression, a sign of infancy, except when illustrating subject matter in a specialized capacity, for example in the form graphs and diagrams in mathematics and natural sciences, as also identified in prior non-landscape specific research (Guattari 2011: 161–162, 168–169; Guattari and Rolnik 2007: 138; Kress and van Leeuwen 2006: 16–17; Kress and Selander 2012: 268; Lehtonen 2002: 57–58).

It is worth noting that while the quantitative analysis of writing and image in this article is thorough, it is not exhaustive. There are countless other discourses that intersect in this environment and warrant a closer look; a single article, no matter how thorough, simply cannot address all this complexity. It is also worth noting that the findings of this study need to be treated with caution; they should not be understood as being representative of all learning environments. The findings pertain only to a particular learning environment and possibly, by extension, to other Finnish learning environments during the period when the 2003 and 2004 core curricula were in effect. The drop in the items issued by the students on the lower and upper secondary levels of education is particularly puzzling. Being a product of this education system and having also taught when these curricula were in effect, I believe that this drop has to do with how on the secondary levels the assessment of performance is done through essays and exams. However, it is clear that further research would be needed to assess whether this drop is a general trend or only a feature of this particular school unit. Furthermore, as the relevant core curricula have changed during the years following this study, it would be of particular interest to examine a particular school unit (ideally, the same one as studied here), in order to assess whether changes in the recent core curricula that emphasize student activity, transversality and multimodality can be observed in the current learning environments, or whether the old mentality persist in spite of the changes.

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