

FINGERSPELLING ENGLISH WORDS IN FINNISH SIGN LANGUAGE CONTEXT
– A MULTIMODAL VIEW ON INTERACTION

Master's Thesis

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1 INTRODUCTION

This study examines the ‘fingerspelling’ of English words by Finnish Sign Language signers. Fingerspelling is the usual manner by which an English word enters a Finnish Sign Language (FinSL) conversation. The practice is intriguing in many ways. According to the usual, simplified definition, the English word in question—usually a proper name—is fingerspelled via the manual FinSL alphabet, received by the eyes, and produced manually. This study aims for a wider understanding of the complexity of the action of a Finnish signer fingerspelling an English word. It approaches fingerspelling from a multimodal perspective, examining situations in which modes other than fingerspelling are evident. The author analyses fingerspelling as a *social action* in which all the participants of that action construct meaning together, and scrutinises the form of the fingerspelled word itself, particularly the structure of fingerspelled sequences in relation to the purpose of fingerspelling in an interaction.

This ‘pro gradu’ thesis is part of a larger ethnographic PhD research project on everyday English language practices among the FinSL community; I collected the data examined in this thesis during the PhD study (Tapio, in progress). That data includes three video recordings, which I refer to as ‘The Aviator,’ ‘Guitar,’ and ‘Ultimatum.’ The first recordings, ‘The Aviator’ and ‘Ultimatum,’ were captured during a video conference that was part of an English course entitled ‘Beehive.’ The third recording is of a ‘coffee table’ FinSL conversation between two participants.

The aim of this thesis is to examine interactional situations where fingerspelling of English words take place. This choice of interest has been made for two reasons: *one*, the interest to research signed interaction, the language-in-use in the Deaf community, and *two*, the interest to examine the actions the Finnish Sign Language people take with regard to the English language.

So far, there has been only little research on signed interaction in Finland. In the beginning of the 1990s, two researchers, Paul McIlvenny and Pirkko Raudaskoski, published altogether three academic articles on research of signed interaction based on the data of natural multi-party sign language activity they had collected among a community of deaf

signers in Northern Finland (McIlvenny 1991, McIlvenny & Raudaskoski 1994, McIlvenny 1995). Their goal was to analyse talk-in-interaction from the perspective of conversation analysis. In their research, they focused especially on the organisation of turns-at-talk and on showing how sign language interaction is socially constituted, maintained and used in real practical setting. The papers also discuss widely the practicalities of data collection and transcription. Since then, although research on FinSL has been booming during the recent years, there has not been research on FinSL signed interaction based on naturally occurring data. The research has been encouraged to prioritise the examination and description of FinSL grammar and syntax in particular (Jantunen 2008).

The further goal of this study is to see how the findings might broaden our understanding of English language learning by Sign Language people, and to arrive at new insights into language teaching, particularly into teaching English to diverse learners. An examination of fingerspelling from a multimodal viewpoint so as to gain new pedagogical insight might sound as if the researcher has started very far away from the goal. From an ecological view of language and language learning, however, this is not the case. An ecological perspective does not see language as an isolated object of study. Regardless of the community of language practice, people do not construct meaning only through the formal linguistic sign system; in real activity, other modes of meaning-making are always coupled with language use (Lemke 2002: 71–72); therefore, ecologically-oriented linguistics relates language to other aspects of meaning-making such as gestures, drawings, and other semiotic artefacts (van Lier 2000: 251). An ecological perspective of language learning—like a socio-cultural view—uses the term *affordance* when discussing language learning (Van Lier 2000: 252). As implied, an affordance *affords* something; an affordance is an entity available to a person, with which he or she may do something (van Lier 2004: 91). Before continuing to examine the theoretical text on the subject, I will demonstrate what ‘affordance’ means in practice, with an example taken from the data of this study.

In ‘The Aviator,’ a group of FinSL signers and a group of Spanish hearing peers—the Finns in a computer classroom in Oulu, Northern Finland, and the Spanish in Deltebre, Eastern Spain—are competing in a quiz, communicating with each other via the video-conference facility of the ‘Windows Live Messenger’ application. The players are competing seriously and the Finns have not answered any questions correctly when a new question

“What is the latest film by Leonardo Di Caprio?” appears on the computer screen and on the whiteboard of the classroom. The Finnish group is anxious to send the correct answer to the opponent as quickly as possible. So what happens next? One might arrive at hundreds of possible actions that could be part of typing the correct answer and sending it to the Spanish team. However, it is also easy to conceive of many constraints that affect the group work at hand. In short, the Finnish group chooses to use certain languages in certain modes, to make contact with certain people and in a certain way, and to type letters on the keyboard in a certain order and manner. Moreover, from a pedagogical viewpoint, what the players *did not do* is as significant as what they did; individuals select and work with the affordances available to them in the environment to achieve their goals.

The manner in which people use affordances—for example fingerspelling—is not a coincidence: affordance practices are learned culturally within communities. In other words, the best way to examine how to teach English to the deaf is to scrutinise signing communities for the practices that have been created within the community. Learning a language is after all doing things *with* that language. In short, I suggest that by examining complex interactional situations with high modal density, and in particular the way the users of sign language manage their attention and awareness in them, can give us valuable glimpses of a language learner at work.

Chapter 2 discusses in detail the research goals, questions, and motives behind this research. Chapter 3 introduces the research methodology, Mediated Discourse Analysis (MDA), examining the basic concepts of MDA and introducing the main method used in this research, multimodal interaction analysis. Chapter 4 scrutinises previous linguistic and sociolinguistic research on fingerspelling and mouthing. Chapter 5 focuses on data that is then analysed in Chapter 6. The study concludes with discussion and conclusion in Chapters 7 and 8.

2 GOALS AND RESEARCH QUESTIONS

This research examines *interactional situations* in which the fingerspelling of English words occurs in a Finnish Sign Language (FinSL) context. This chapter explains why the study focuses on the fingerspelling of English words, describes how the author intends to examine fingerspelling, and presents two main arguments. These arguments are, firstly, that foreign language teaching can create valuable pedagogical innovations by examining everyday interactional practices, particularly concerning the Deaf community, and, secondly, that a focus on practice—on language and action instead of solely on language—requires a multimodal view of interaction. This chapter will also introduce the questions I have followed during my research.

2.1 A focus on informal, everyday action

Two motives lie behind my choice to examine social actions as they occur among FinSL signers in natural interaction. Firstly, research in the context of formal education has directed researchers to examine everyday action with language beyond the classroom. For example, research into computer-supported language learning indicates that learning involves networks and communities that may be far more complex than formal education traditionally assumes. People seem to use diverse media creatively and efficiently to accomplish their goals (see, e.g. Kuure 2011, Kuure *et al.* 2002, Saarenkunnas & Kuure 2004, Saarenkunnas 2004).

Studies of language learning that draw upon data gathered from informal contexts or which examine out-of-school practices transforming learning activities at school have influenced this study greatly; in particular, studies that take on small scale, ethnographic analysis of situated action and connect it with macro level concerns within education (for a summary and suggestions for further directions, see Firth & Wagner 2007, Jewitt 2008a,

Jewitt 2008b, for CA grounded analysis, see Lilja 2010, Suni 2008, for the informal meeting the formal, see Mondada & Pekarek Doehler 2004, Gutiérrez *et al.* 1999, Sawchuk 2003).

Secondly, my previous Master's thesis, carried out as part of my Master studies in English Philology, also pointed in the same direction; in other words, the thesis led me to examine the resources available to students outside formal education (McCambridge 2004). A relatively small body of data consisting of the English compositions and interviews of deaf pupils showed that those pupils learned vocabulary from a variety of different media, including video games and other visual representations in their environments. It is justified to assume that FinSL signers live in a multimodal world of images and gestures, forming their own pedagogical strategies from their everyday encounters.

Studies in the field of Deaf studies and Deaf education (see for instance Padden 1996 and the research project 'Signs of Literacy' led by Carol J. Erting at Gallaudet University) have promoted research in everyday life practices in the Deaf community. Moreover, such studies have achieved a more detailed perception of learning and communication among signers in order to aid the development of the formal education of signers. One can see a similar direction in the Finnish OSATA project (Rainò 2010), which has explored mathematical discourse in FinSL. One conclusion of the project is that counting techniques among the Deaf community have not been recognised or appreciated in formal education, leading to poor performance in Mathematics among deaf pupils in schools (Rainò & Seilola 2008, Rainò 2010).

The studies conducted by Sangeeta Bagga-Gupta (2004, 2007, 2010, 2002) have been of great importance to this study. Bagga-Gupta has not only studied discursive and technological resources in a Swedish Sign Language context, but has also widely discussed issues of identity and diversity and has criticised the marginalisation and dichotomies that seem to govern studies of human diversity. One of her main points, that participation in complex discursive practices exposes students to metalinguistic skills in language, has been a main motivation for this study.

The fact that the first set of data, 'The Aviator' and 'Guitar', is collected in a school classroom during school hours made it necessary to consider the relationships between informal and formal, and school and home. Ethnographers with considerable experience of research in schools (Gordon *et al.* 2007: 43–44) have named three levels of examination to

help 'direct their gaze,' namely *formal*, *informal*, and *physical* examination. While *formal* examination refers to the study of teaching methods, school curriculums, interaction in instruction, and the formal hierarchies between school staff and pupils, *informal* examination refers to the study of informal interaction during and outside class. Both formal and informal practices and processes take place in the framework of *physical* school, a term that Gordon et. al use when discussing the time, movements, sounds, space, and embodiments regulated at schools. Aware that the interaction in question takes place in a school—and that the actions pertaining to that interaction are influenced by the hierarchy of the school and controlled by the factors listed above—I contend that the interaction is everyday and informal. I base this contention on my ethnographic fieldwork among the Deaf community, fieldwork during which I recognised similar practices relating to fingerspelling outside a school context in an informal setting. Also, triangulation of the data¹ in this study with native research participants convinces me that the type of fingerspelling observed in the data originates from the community of practice. Also, earlier research carried out in a school context argues that it is very likely that moments of informal interaction will take place in the school context, for example, in occasions where pupils want to diverge from formal school practices and place themselves socially towards their peers instead of the teacher (see, e.g. Pitkänen-Huhta 2008).

2.2 A focus on fingerspelling

Educators, who often do not come from the Deaf community, may have an unclear perception of the language practices of students from the community, or might be unaware of the actions of deaf students. Teachers are also often unaware of their own actions, particularly regarding their “language-mediated, finely tuned interactions (or as is too often the case, out-of-tune interactions) with Deaf students” (Wilcox 2004: 163–164). For this reason, Ramsey (2004) asserts that Deaf people should play a primary role in education and literacy learning for Deaf children, because they (deaf people) have

¹ For more about the triangulation of the data in this study, see subsection 3.3.

innovations to problems of learning and development and information about language structures, discourse patterns and teaching strategies.

Wilcox (2004: 164) suggests ethnography as a framework for researching Deaf practices, and aims to make the goal of ethnographic research transparent, stating that “the point of this is not to ‘become Deaf’ but to better understand what Deaf people are doing, how they make sense of their world. It is a goal of ethnographic research in general, to make the unfamiliar familiar, and especially, bring everyday ‘unexciting’ practices of the community into sight.” Interestingly, Wilcox himself researched fingerspelling from a phonetic viewpoint (1992) and later (2004) examines fingerspelling as a literacy practice for developing the language and literacy education of the Deaf. For example, in one case study, Wilcox describes and analyses how a Deaf young girl from a linguistically rich, bilingual background modified the fingerspelled signs in a very creative way, developing her own strategy to facilitate acquisition of her second language, written English (Wilcox 2004: 172–173). Wilcox concludes (2004: 176) that these visuo-gestural strategies are the inventions of the participant, not an outsider’s intervention.

Several other researchers have recognised fingerspelling as a practice bridging signed language in bilingual settings with the language spoken by the national majority. The principal findings of this research show that bilingual families use fingerspelling when English print is introduced to Deaf children (Erting & Thumann-Prezioso, C. & Sonnenstrahl, Benedict, B. 2000, Padden 1996). Classroom studies in an ASL context (for example Humphries & MacDougall 2000, Ramsey & Padden 1998) also demonstrate that fingerspelling is among many strategies used by teachers and particularly by native signers to highlight correspondence between representations in different symbolic systems, or framing equivalences (Padden 1996). Bagga-Gupta (2004, 2002) has examined similar phenomena in a Swedish context, discussing language mixing in which fingerspelling is also involved as local chaining. Fingerspelling, particularly the natural acquisition of fingerspelling, is seen as a meeting point for sign language and the spoken language (Johnson 1994a) and as a possible bridge to help decode English print (Haptonstall-Nykaza & Schick 2007). However, the researchers stress the importance of bearing in mind that to discover new implications for teaching secondary (and foreign) languages, research into fingerspelling as a literacy practice should focus on Deaf everyday practices in natural

environments. Wilcox proposes that when conducting further research in the field, it is “time to examine our tools—all of them: ASL, MCE, spoken English, written English, and whatever languages are being used in the Deaf student’s home and community” (Wilcox 2004: 178). While agreeing with Wilcox’ proposal, I would state the following: while the focus is on fingerspelling, a linguistic practice, the aim is not only to examine languages but interaction from a wider viewpoint, scrutinising social action from a multimodal perspective.

2.3 Research questions

When examining the fingerspelling of an English word as action and with a holistic view of interaction, I began with a rather general research question, namely, “What happens when fingerspelling an English word?” However—as occurs with ethnographically oriented-research—one begins quickly to attend to particular aspects of a phenomenon, as it is impossible to account for every single occurrence. For this reason, following an initial analysis of the data, I divided my first main research question into two research questions and several sub-questions. In addition, after analysing the data collected in the classroom situation, it was evident that fingerspelling was modified for the purposes of that situation. I therefore collected an additional set of data in order to compare that type of fingerspelling to fingerspelling in other situations. My research questions are therefore as follows:

I What is the multimodal nature of fingerspelling?

- a. What are the communicative modes used in a situation where fingerspelling an English word takes place?
- b. What modes do the participants choose from the wide selection of communicative modes?

- c. How do participation frameworks² function in the situations? How do people create them, 'stay' in them, and move from one to another?
- d. How is mouthing present in each instance of fingerspelling?

II How is fingerspelling modified in a communicative situation?

- a. What happens in the fingerspelled sequences when analysed linguistically? What changes take place on a phonological and morphological level?
- b. Why is fingerspelling modified in these situations? How is the function of fingerspelling modifying its phonetical structure?

² A participation framework is people's orientation towards each other, built and sustained through the visible embodied actions of the participants; including gaze, proxemics, posture, and head movement. More on the participation framework in section 3.6.

3 THEORETICAL FRAMEWORK AND METHODOLOGY

In this chapter I will first discuss the theoretical framework, Mediated Discourse Analysis, MDA, and how MDA is applied to this particular study. Then I will introduce the methodological tools that are *derived* from MDA and used in this study. MDA is not a separate school or theory, but rather as a nexus of practice (Scollon & Scollon 2004) at which different research traditions converge.

3.1 Mediated Discourse Analysis

This research draws from Mediated Discourse Analysis, MDA (Scollon & Scollon 2001; 2004). In MDA, the focus is on social action, “to try to understand how people take actions of various kinds and what are the constraints or the affordances of the mediational means (language, technologies, etc.) by which they act” (Scollon & Scollon 2004: 21). In a study where the visual modes for meaning-making are also accounted for, it is important to have an approach that does not separate language from other resources of the Deaf community.

MDA focuses on social action more broadly than previous text and discourse studies; the goal is to capture the whole complexity of the social situation in analysis. MDA seeks to broaden the ‘circumference’ of discourse analysis to include things like objects, gestures, non-verbal sounds and built environments. The goal is to understand how all these objects and “all of the language and all of the actions taken with these various mediational means intersect at the nexus of multiple social practices and the trajectories of multiple histories and storylines that reproduce social identities and social groups”. (Jones & Norris 2005: 4, 9.)

MDA has drawn upon and integrated a number of traditions in linguistics. It combines theories such as interactional sociolinguistics—which investigate how social actors acting in real time can strategise their own action with other social actors so as to achieve their desired social meanings with others—and new literacy studies, in which one views literacy as a mediational means through which people take actions in the world by which they display

their identity and membership in particular groups and critical discourse analysis (Jones & Norris 2005: 7–8).

MDA sees all action as mediated, carried out via material and symbolic mediational means. Mediational means can also be called cultural tools, semiotic resources or resources (Scollon & Scollon 2004: 12). In this study, fingerspelling is seen as a mediational mean, a (semiotic) resource that Sign Language people use for carrying through other actions, such as problem solving.

The turn of focus from 'language only' to mediated action enables the researcher to take a wider perspective on 'Deaf resources'; not only on sign language but also to other visual resources and practices developed within the Deaf community. In my opinion, it is also beneficial to have a viewpoint to practices among the Deaf community that does not lead to hasty categorisation of symbolic material to linguistic and non-linguistic elements, especially now when the sign language linguists have only just started to examine the relationship between the gesture and the lexical elements of signed languages (see, e.g. Jantunen 2010, Liddell 2003, Sallandre 2007, Takkinen 2008, Vermeerbergen & Demey 2007).

Figure 1 shows the three main elements of social action that the researcher pays attention to: discourses in place, historical body and the interaction order. As the figure shows, social action is seen as the intersection of these three elements. The discourses in place means the discourses (educational talk, language politics etc.) that affect the action, studying the interaction order means looking at the social arrangements by which people come together (does the action happen in large groups, in short chats etc.), and the historical body means the life experiences of the individuals. (Scollon & Scollon 2004: 19.)

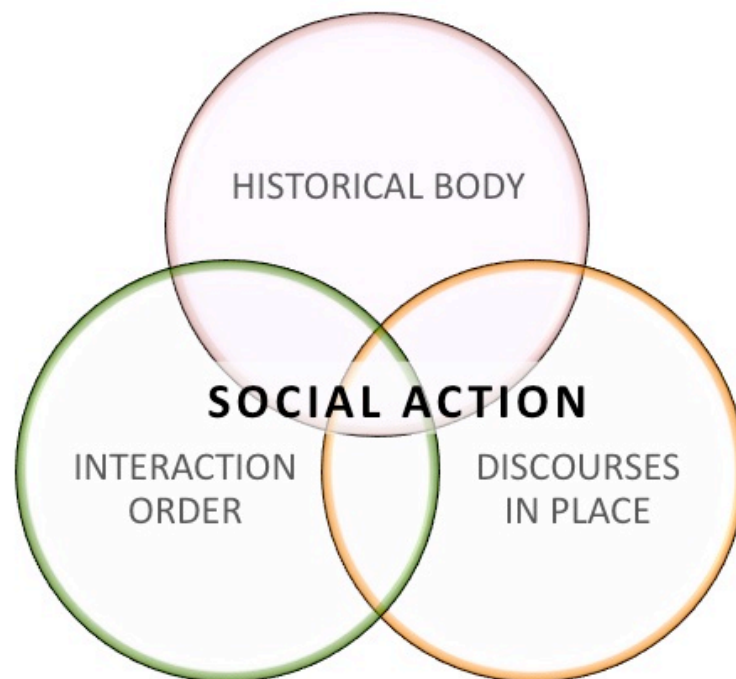


Fig. 1. The three main elements of social action (Scollon & Scollon 2004: 19)

The way in which this study navigates the social action in question is not as comprehensive as Scollon and Scollon (2004) propose. In practice, I analyse the fingerspelling of English words in a detailed manner, examining the phonetic structure and its relation to other modes, such as mouthing and writing. This is done in order to be able to explain the phenomenon not researched in FinSL before this study. My focus is on discourse as language-in-use, with a multimodal view. I have examined the historical body of the participants in part, based on the analysis of the data that has been collected 'around' the video-recorded situations, such as interviews and observations. What my study of the practice in question lacks, is examination of the 'large scale discourses' circulating through this action-practice and the views of the participants of the study on this particular phenomenon. The need to define the social action itself was prioritised and the larger analysis of that social action is left for future examination.

3.2 Methodological tools for the analysis

In this study the action of fingerspelling an English word is the focal social action under analysis. As in MDA, the methodological tools are selected to suit best the data in focus. First of all, when examining the social action under analysis, I have to understand what fingerspelling actually is and the relationship between fingerspelling and other mediational means. For this I need tools from sign language linguistics and social semiotics. Previous studies on fingerspelling give explanations on the usage and structure of the manual alphabet, while sign language phonetics help to examine the structure of fingerspelled sequences as they take place in the data. My goal is to understand *how* people actively employ, regulate the use of, and even manipulate different semiotic resources. That goal is in accordance with the goals of social semiotics as introduced recently in particular by Van Leeuwen (2005) and Kress (2010). The social semiotic approach examines semiosis as a dynamic process, as an interactional event, and provides this study with concepts that allow analysis of the interrelationships between the mediational means used by the signers.

Since I will analyse interactional situations where fingerspelling takes place, and take into account also the other means of meaning making than signed language only, I will need the concept of multimodality (see, e.g. Kress 2003, Kress & Van Leeuwen 2001). The multimodal perspective is also a key aspect of language learning in ecologically oriented research (Kramsch 2002, van Lier 2004). A variety of theoretical approaches can be used to analyse multimodality in human action. Jewitt (2008a, 2009), Norris (2012: 223), and Kääntä and Haddington (2011) have considered the similarities and differences between different approaches to multimodality, as well as the underlying theoretical background of each approach. In this study, my analysis is based on the multimodal approach that stems from mediated discourse theory (Norris 2004, Norris & Jones 2005, Norris 2011, Scollon 1998, Scollon & Scollon 2004). However, work in the field of conversation analysis and interaction analysis that takes the multimodality of interaction into consideration (e.g. Goodwin 2000, 2007), has also provided me with tools for analysing the data of this study. The key concepts and foci of such works will be introduced in the coming sections. The work of Sigrid Norris

especially (2004) provides me with concrete tools for analysing multimodal interaction. Norris' methodology will be introduced later in this chapter.

3.3 How the methodology affects the collection and analysis of the data

The study of the three video-recorded situations is strengthened through triangulation of multiple data. In their ethnographic research frame, Scollon and Scollon suggest that data should cover four types of sources: members' generalisations, neutral (objective) observations, individual experience, and interactions with members. Interaction with members is about finding out how participants account for the analysis. It focuses mostly on resolution of contradictions among the first three data types. (Scollon & Scollon 2004: 158.) In other words, although the analysis is on the three video-recorded data, the analysis of the other data has provided the analyst with wider perspective on the interaction taking place in the analysed situations.

An ethnographic research method also affects the way data is collected. The researcher may participate in the interaction to be analysed later. Therefore, the veracity of the study is enhanced through a *co-researcher relationship* with those being studied. (Scollon & Scollon 2004: 156.)

Naturally, the data to be collected is multimodal in all the ways possible. In practice this means video-recorded data where also high auditory quality has to be guaranteed. The researcher has to find ways how to capture the information of the space and place of each action that will be analysed later on. Since the visual objects (images and any objects present in the environment) may play a role in interaction, information on them should be collected as well.

3.4 Analysing multimodality in face-to-face interaction

This section introduces the main methodological assumption when analysing interaction from the multimodal perspective. The main emphasis is on Sigrid Norris' methodological framework (2004) and on other research into interaction with a multimodal viewpoint, research from which Norris also draws from.

In analysing multimodal interaction, the goal is to analyse human interaction in its vast complexity. The assumption is—for example—that a gesture or gaze can play a superordinate or equal role to the mode of language in an interaction. The foundation of multimodal interaction analysis, as propounded by Norris (2004), lies in discourse analysis, interactional sociolinguistics, and MDA; it crosses boundaries between linguistics, nonverbal behaviour, and the material world.

Interaction analysis (Jordan & Henderson 1994) also attends to the multimodal nature of human interaction; for example, interaction analysis examines how people communicate the beginnings and endings of actions not only with language, but with gestures. In the field of conversation analysis, researchers have started to attend to embodied interaction, in particular to gaze, gesture, and posture (see, e.g. Goodwin 2000, 2001, 2007). Such research employs the method and principles of sequential analysis, with the goal of describing how meaning is socially constructed in talk-in-interaction from the perspective of the participants. Multimodal interaction analysis arising from a methodological framework of conversation analysis differs from multimodal interaction analysis based on MDA. As described, MDA is an ethnographic research programme. Therefore, a researcher will analyse the interactional event in question as a nexus of discourses; in other words, looking beyond the situated practice from several viewpoints made available through the analysis of other data collected.

Norris proposes (2004: 12) that when analysing interaction, the researcher should first discern all of the *communicative modes*³ that the individuals are utilising. After that the analyst is ready to investigate how modes play together in an interaction. Norris (2004: 15)

³ A system of representation or a mode of communication is a semiotic system with rules and regularities attached to it (Kress and Van Leeuwen 2001). Norris (2004) calls these systems of representation communicative modes in order to emphasise their interactional communicative function.

lists the following communicative modes: Spoken language, proxemics (distance that individuals take up with respect to others and relevant objects), posture, gesture, head movement, gaze, music (embodied or disembodied), print (embodied or disembodied) and layout.

Norris (2004) gives an overview of nine communicative modes. The list can serve as a starting point for discerning modes in each situation. Each one of them with a summarised description is presented in the table (Table 1) below. Naturally, when analysing interaction where both signed and spoken languages are present—including many spoken languages and many manifestations of them both—Norris' categories of communicative modes need to be completed to suit the data.

Spoken language: <i>(talk in interaction)</i>	Spoken language is generally organised sequentially, but in interaction simultaneous talk often takes place.
Proxemics:	The distance that individuals take up with respect to others as well as to relevant objects.
Posture:	The ways in which individuals position their bodies in a given interaction, the postural direction, open and closed postures.
Gesture:	Iconic, metaphoric, deictic and beat gestures. (see, e.g. Kendon 2004, McNeill 1992).
Head movement:	Can be lateral, sagittal, or rotational, can be conventional, such as nodding the head for 'yes', or novel (innovative).
Gaze:	The organization, direction, and intensity of looking.
Music:	An embodied mode when individuals use instruments or sing, and a disembodied mode when people react to the music played by others.
Print:	Print is an embodied more when people use tools (pen, paper, computer) and a disembodied mode when people react to the print developed by others.
Layout:	How the participants utilize the layout and communicate through this mode. Interaction is structured by the layout. The analyst pays attention on how the layout impacts the interaction by between the participants.

Table 1. An overview to communicative modes (Norris 2004)

There are two main dimensions to consider when the analyst is discerning the different communicative modes used in interaction: structure and materiality, and awareness and

attention (Norris 2004: 2–4). The notion of structure pays attention to the mode itself: whether it is sequentially or synthetically structured, and what are the consequences of each structuring. Materiality on the other hand is about the communicative channel the mode is utilising, for example, how the spoken language is audible and the signed language is visible. Whether the mode is enduring or fleeting also depends on the materiality.

In the case of heterogeneous group of deaf, hard-of-hearing, and hearing people, the division between the communicative modes and their materiality is not as straightforward as in spoken language research. In the Deaf community, spoken language is, indeed, also visible, and at the same time signed language becomes audible. For example, mouthing can be considered as a visual manifestation of spoken language (discussed in more detail in section 4.5) as well as sounds resulting from signing hands can also bear meaning to a hearing participant in a signed interaction. This viewpoint seems to be lacking in the majority of research on interaction, both spoken and signed language research, but will be recognised in this research where both data and research participants are in the intersection of visual and audible languages and other communicative modes.

Also, in sign language interaction, people draw on a multiplicity of communicative modes. As mentioned earlier in section 3.1, linguistic research on signed languages has started lately to attend to the interplay between signs and gesture; however, very little research exists on signed interaction that also takes into account means of meaning making other than linguistic elements.

Inspired by the works⁴ that take into account the spatial aspect of interaction, this study pays special attention on how actions and discourses are influenced by spatial layout. In the case of visual language and community, it is essential to analyse the way people arrange their bodies in a place when taking into account the modes and the media used in the given interaction.

4 Recently there has been a growing interest in discourse studies on space and space in relation to language use and discourse and how people organize themselves spatially in social interaction, see e.g. Scollon & Scollon 2003 (geosemiotics), Cresswell 2004 (human geography), Jones 2005 (sites of engagement in computer mediated interaction), Benwell & Stokoe 2006, Blommaert et al. 2005, Keating 2000 and Kendon 1990: 209-221). It has been said that some discourse studies and pragmatics are having a minor ‘spatial turn’ (McIlvenny *et al.* 2009: 1879).

Place provides the conditions of possibility for creative social practice, “a template for practice—an unstable stage for performance.” Although Latour (2005: 196) denies the existence of ‘underlying hidden structure,’ he also suggests that ‘structuring templates’ may exist. The architectural specifications of a space in a building, for example—such as a lecture hall—may pose restrictions for interactions that occur in that space. In other words, architecture produces a ‘script’ for a scene that can also be understood as affordances for actions if following Gibson’s (1977) notion of the relationship between the environment and the actor. Certain spaces and places are normatively associated with the accomplishment of particular activities (Crabtree 2000, also Keating 2000).

However, people seem to be able to resist the construction of expectations by using places for their own purposes and practices for which a place is not originally designed (Cresswell 2004: 27). An example of such practice is how Sign Language people modify a lecture hall, originally designed for spoken interaction, for mutual access in signed interaction.

3.5 The interplay between communicative modes in interaction

Goodwin posits his principal idea of interaction as a multimodal activity by stating that human action is built through “the simultaneous deployment of a range of quite different kinds of semiotic resources” (Goodwin 2000: 1489). On the interplay of semiotic resources—in other words, communicative modes—Goodwin (2000: 1490) states, “As action unfolds, new semiotic fields can be added, while others are treated as no longer relevant, with the effect that the contextual configurations which frame, make visible, and constitute the actions of the moment undergo a continuous process of change.” According to Goodwin, not all these resources are relevant and in play at any particular moment.

Norris (2004: 78–94) also attends closely to how people in interaction employ different modes with different degrees of intensity or complexity. In other words, the situation, the social actors, and other social and environmental factors determine how intensive or important a specific mode is in an interaction. Both intensity and complexity can lead to

modal density, which, again, is a sign of a high level of interactional attention or awareness among participants (Norris 2004: 78–94). In the multimodal interaction of a group of hearing, deaf, and hard-of-hearing pupils and teachers, people shift from communicative mode to another, and, at the same time, from one channel to another.

When analysing how and when people shift focus between visual and auditory channels and how we move from one participation framework to another, an analyst should attend to the modes of gaze, head movement, proxemics, and posture. Norris (2004: 51) argues—and I concur—that these modes very often overlap and are difficult to distinguish from each other. When analysing the interplay of different modes in interaction, the analyst very soon realises that modes have no true boundaries.

Norris' (2004) framework for analysing multimodal interaction gives tools for the analyst to describe and bring into sight the ability the participants have when they “rapidly call upon alternative structures from a larger, ready at hand tool kit of diverse semiotic resources” (Goodwin 2000). This very same ability is also mentioned as a sign of a successful foreign language learner activity in the context of an ecological view of language learning (for example Kramsch 2002); in other words, when examining an actor perceiving and acting upon affordances in an environment. For this reason, I suggest that by examining complex interactional situations with high modal density, and in particular the way the users of sign language manage their attention and awareness in them, can give us valuable glimpses of a language learner at work.

3.6 Participation framework

A participation framework is built and sustained through the visible embodied actions of the participants; including gaze, proxemics, posture, and head movement. People are very conscious, for example, of gaze sifting when interacting with each other: they orient themselves towards each other via gaze, and turning away from a person talking is one way to bring an interaction to a close. A participation framework is dynamic, is built collaboratively, and is always open to challenge (Goodwin 2000: 1496.) In spoken

interaction, mutual embodied orientation enables other sign systems, such as hand gestures, to function also (Goodwin 2000: 1497). In a signed interaction, the mutual embodied interaction that allows eye contact is a prerequisite for signing (McIlvenny 1995).

Establishing participation frameworks concerns not only gaze and eye contact; people also organise their bodies in concert with each other. This establishes a public, shared focus of visual and cognitive attention—a focus for attention and action—that creates mutual accessibility (Goodwin 2007: 57, 59, 65). People can orient their bodies and gazes to an object they work with—for example, a computer screen—while still engaged in spoken interaction. However, it remains to be examined *how* participants attend to multiple visual fields simultaneously in the case of signed interaction. In terms of participation frameworks, the main interest of this study is in examining how the participation frameworks are mutually organised by the participants (Goodwin 2007: 53) and how the participants create mutual access for other visual sign systems to emerge in addition to signing.

4 FINGERSPELLING AND MOUTHING

In this study, fingerspelling is the mode of communication under scrutiny. It is one mediational mean used when the research participants in this study interact with each other. Before proceeding to multimodal analysis of the data, I will examine how fingerspelling is defined linguistically in research done by sign language linguists, for example, the 'materiality' of fingerspelling and the relationship between fingerspelling and spoken languages. The chapter will also cover *mouthing*, since mouthing plays an important role in sign language and in particular in fingerspelling. Since this chapter is created in particular to serve the coming analysis, research reported here is heavily summarised and information is selected so that it would be relevant for instances where an English word is fingerspelled in FinSL context.

The manual alphabet used in Finland by FinSL signers, is a so called *international manual alphabet* (see appendix 1). This manual alphabet has been employed in Finland since the 1960s (Salmi & Laakso 2005: 319).⁵ Signs used in fingerspelling in Finland are very close to the so called 'French-American' manual alphabet; exceptions are LETTER-P and LETTER-T, which differ slightly in their handshape. Most research conducted on fingerspelling has been conducted on American Sign Language (ASL) in the US, where the manual alphabet is rather similar to the Finnish manual alphabet. However, it is important to note that research findings made on ASL are not applicable to how FinSL uses fingerspelling because the signs for the Roman alphabet happen to be same. Fingerspelling is considerably more frequent in ASL than in FinSL. ASL fingerspelling is produced a lot faster than most Finnish fingerspelling and is used for other purposes than those in the FinSL community (Padden 2006). Some notably different ways to fingerspell exist in ASL: for example, in ASL, people very often point with the index finger of their non-dominating hand to the wrist of the dominating hand

⁵ Before the 1960s, the Finnish Deaf community used 'the old manual alphabet', the same as the Swedish Deaf used then and still use today. Some elderly FinSL signers still use the old alphabet, and it is also commonly known among community members. (Salmi & Laakso 2005: 37.)

when fingerspelling. By doing so, signers stress fingerspelling; for example, when fingerspelling a name for the first time in a discussion.

Little research on fingerspelling in FinSL exists, except for some small investigations of fingerspelling (for example Jantunen & Savolainen 2000), so this chapter will mostly summarise what researchers on ASL and BSL say on the topic. It is important to bear in mind that the research on which I elaborate here deals with a situation in which language contact is between a national sign language and a majority spoken language, in which case bilingualism between the signed language and English is of a high level. In contrast, my research focuses on actions in which a *foreign* language, English, is introduced to FinSL conversation and signers are bilingual in FinSL and Finnish.

The questions to be answered in the following sections are: ‘What is the function of fingerspelling?’, ‘Why do users of sign language fingerspell?’, ‘How do linguists see the manual alphabet in relation to lexical signs?’, ‘How to define fingerspelling and the fingerspelled signs linguistically?’, ‘What is the relationship between the manual alphabet and spoken language?’, and finally, ‘What is mouthing?’

4.1 Reasons for fingerspelling

One hears often said that signers fingerspell words instead of ‘real signing’ when there is no sign for a concept. This explanation is partly true, but does not explain fully why and when fingerspelling takes place in sign language conversation.

Fingerspelling is one way to create new signs (Jantunen 2003: 80, Valli & Lucas 2000: 64). In FinSL people fingerspell when one needs to refer to words of spoken language that does not have a sign with an equal meaning (for example, proper names), recipient does not know the sign for the concept in question, and when one does not want to refer to the concept but to the form instead (Jantunen 2003: 80). Padden and Gunsauls (2003: 14) describe how

ASL uses the manual alphabet as a “selective tool for cross-modal borrowing, a way to import spoken language vocabulary into the signed language”.⁶

Fingerspelling offers the possibility for signers to access and represent the spoken language of the majority community. The Manual alphabet can be seen as a bridge between the two modalities: spoken language and signed language. However, the bridge does not connect spoken language to signed language directly – written form of a spoken language is a visualisation of the surrounding spoken language and fingerspelling is a visual and gestural representation of the written mode.

Padden and Gunsauls (2003: 15, 26–29) have found several functions of fingerspelling in ASL. They emphasise that fingerspelling is not simply a tool for borrowing words from spoken language. Fingerspelling can also function as a signifier of a certain dimension of meaning, for example, to invoke Biblical authority or other, different authority other than the community. Fingerspelling can be used to assign contrastive meaning, e.g. scientific or mathematical meaning; signs for familiar, known and intimate versus fingerspelling foreign, scientific and non-intuitive concepts. In other words, and drawing from Vygotskian theory on concept development, Padden & Gunsauls argue that fingerspelling is done to connect different spheres of knowledge and use contrast to expand the potential of meaning.

Padden & Gunsauls (2003: 30–31) also point out that in the US, fingerspelling might have been and is used to prove a strong degree of bilingualism among the deaf. In that context we can see an oppressed minority showing to the majority that regardless the usage of signed language, they master the spoken language too. One theory about the high rate of fingerspelling in ASL is that it reflects high rates of reading and writing literacy among the deaf. Padden & Gunsauls conclude (2003: 31): “Fingerspelling is interesting not simply as a language system but also as a human innovation that grew out of a long history of adaptation of the alphabet. (–) Not merely a vehicle for cross-modal borrowing, it has also become a means of actively making meaning in the language.”

Without further discussing the possible motivations FinSL people fingerspelling Finnish or English words, I suggest that Finnish signers use English fingerspelling for the same reasons

⁶ This is the case also with BSL, Japanese Sign Language and European sign languages, however, Italian Sign Language uses mouthing for borrowing Italian language words and fingerspelling is used mostly to foreign words (Brennan 2001: 50, 55, 65, Padden & Gunsauls 2003: 14–15).

other Finnish people include English in their repertoires: English has become part of everyday life, both work and leisure, for Finnish people. The role and use of English language among Finnish people, and how English language is integrated into language practices, is broadly researched and reported on in Finland nowadays (Leppänen *et al.* 2008, Luukka *et al.* 2008). One can view the findings of that research as presenting the linguistic landscape and English use of FinSL people also; however, because of the modality differences, it is likely that the signing Deaf communities have visual and embodied practices with English language that the majority hearing community does not. In all probability, fingerspelling is only one of those practices.

4.2 The manual alphabet and fingerspelled signs

The signs representing the symbols of writing have been called many names; for example, ‘fingerspelled letters,’ ‘a finger alphabet,’ ‘alphabetic character signs,’ ‘signs for alphabetic characters,’ ‘a manual alphabet’ and ‘fingerspelled signs’. In this paper, I use the term *the manual alphabet* to refer to the *set* of sign language signs that refer to the written alphabet, and the term *fingerspelled signs* when referring to the tokens of fingerspelling⁷. Linguists do not agree completely⁷ on a definition on fingerspelling, and in particular have disputed the tokens of fingerspelling, as will be seen in this section. However, this section will heavily summarise discussions of the phonology, phonetics, and morphology of fingerspelling and concentrate more closely on different types of fingerspelling so as to support the coming analysis of the data.

Contact between spoken and signed language has made people assume that fingerspelling is producing a written word with handshapes that are iconic representations of orthographic letters. However, while iconicity is explicit in signs such as LETTER-L, LETTER-C and LETTER-O, the signs LETTER-F, LETTER-H, and LETTER-S do not share the visual form of written equivalents in any way (see appendix 1 for images of the manual alphabet in FinSL).

⁷ When referring to individual fingerspelled signs, I will follow Patrie & Johnson’s convention (2011) of glossing a sign as—for example—LETTER-A and LETTER-B, and representing strings of signs by letters in small capitals separated by hyphens, as in E-L-I-N-A.

Although the manual alphabet may have developed as a direct result of language contact between a signed and a spoken language, that does not make fingerspelled signs letters (Mulrooney 2002: 5).

Many ASL researchers, including Valli and Lucas (2000), Liddell (1984) and Liddell & Johnson (1989), have stated that the tokens of fingerspelling are ASL signs, the lexical morphemes of the language. In other words, ASL signs are free morphemes, each composed of a handshape, a location, and an orientation. But in relation to the movement segment, fingerspelled signs seem to differ from the basic sign form. It is evident that the signs LETTER-J and LETTER-Z, for example, have a movement segment; this is true of those signs in both FinSL and ASL. However, a number of fingerspelled signs do not have a fully specified movement. In ASL, researchers have analysed most fingerspelled signs as having a *hold* movement type. The same applies to the fingerspelled signs in FinSL (Jantunen 2003: 79, 2007: 114), yet Jantunen & Savolainen (2000) state this to be a characteristic particular to ASL⁸. Jantunen (2003: 79, 2007: 114) clarifies that statement by arguing that those fingerspelled signs that do not have a movement segment obtain a movement segment—specifically, a short movement ahead—when used independently to refer to the names of letters. This is in alignment with earlier definitions of FinSL signs as having at least one movement segment (Rissanen 1985, also Jantunen 2010) and with the sonority argument, according to which movement is the most salient feature of a sign (see, e.g. Jantunen 2007).

4.2.1 The meaning of the fingerspelled signs

The meaning of the fingerspelled signs is quite often vaguely defined in the terms “they mean the letters of spoken languages”. However, to be exact, the signs refer to printed characters, the graphemes of Roman writing system. The form–meaning relationship is very much the same as how the spoken languages have named Roman alphabet with

⁸ In Finnish, “Erityisesti ASL:n tapaan, lähes täysin ilman liikettä viitottun (--)” (Jantunen & Savolainen 2000).

lexical words, for example the grapheme 'L' is called /æ/ in Finnish and /ɛ/ in English, while /l/ is the sound that the grapheme 'L' represents (figure 2).

In short, as we can see in the figure 2, fingerspelling is a tertiary system, a signed representation of written language, which again is a visual representation of spoken language (Wilcox 1992: 11).

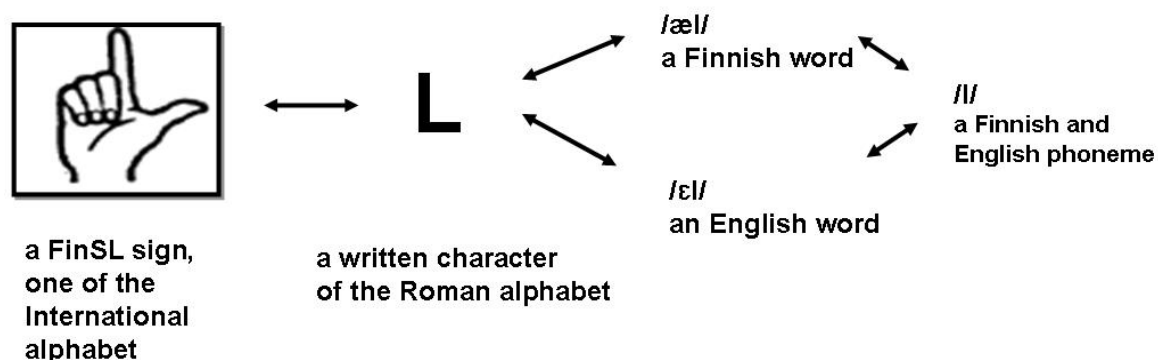


Fig. 2. The relationship between the sign, the written character, the word, and the phoneme

4.3 Fingerspelling of words: signs in sequences

Two rather outdated, very much opposing views exist in relation to fingerspelling, the phenomenon of fingerspelling a word with a sequence of fingerspelled signs. The first view of fingerspelling is that a signer simply signs one static fingerspelled sign after another. This view stands on a model that characterises fingerspelling as a simple correspondence of handshapes with the printed letter of the word of a certain spoken language. According to that model, the production of fingerspelling consists of the serial transmission of static handshapes. The model is wholly inadequate for understanding

how fingerspelling is acquired and fluently produced and perceived. In actual use, fingerspelling is presented in rapid and fluid succession (Wilcox 1992: 16).

The second view, in short, is that in fingerspelling a word, the fingerspelled signs together form one complex sign. This view is strongly argued by Wilcox (1992) and may be seen as opposite to the inadequate view presented earlier in this study of fingerspelling as a succession of static handshapes. Firstly, Wilcox does not emphasise the role of the fingerspelled signs as independent signs with the full phonetic structure of a sign. Secondly, his opinion on 'full, formal fingerspelling' is that it really does not exist but actually, each fingerspelled word is a complex sign (Wilcox 1992: 22). To offer evidence for this claim, Wilcox first refers to another researcher, Akamatsu (as cited in Wilcox 1992), who has come to the conclusion that fingerspelling does not only produce symbols for each written letter in a sequence. Zakia and Haber stated as early as 1971 (as cited in Wilcox 1992) that to read fingerspelling is not to attend to the individual letters; rather, the receiver should attend to the total pattern of the finger configuration. Akamatsu also considers the traditional, cipher model of fingerspelling inadequate and oversimplified. She uses the term 'movement envelope,' which is "the hand configuration being produced; changes in hand configuration cause the envelope to expand, contract, or otherwise change shape" (as cited in Wilcox 1992: 18).

Instead of moving from one discrete handshape to another handshape, argues Wilcox, the hand movement in fingerspelling moves towards the *targets*, towards hand configurations that "serve as goals, or modulation points, along a moving trajectory." The articulatory motions of fingerspelling, according to this view, are movements into and out of these targets (Wilcox 1992:55). Wilcox's view on fingerspelling stresses the complex movements of articulators, the three dimensional character of production, and that a fingerspelled entity resembles one complicated sign.

Wilcox's view on fingerspelling offered much needed recognition to the complexity of fingerspelling and simplified the manifold practices of fingerspelling into one manifestation only, the most fluid way of fingerspelling. Johnson (1994a) and in particular, Patrie and Johnson (2011) present a much-needed view of different way of fingerspelling. The next section will present their view in short.

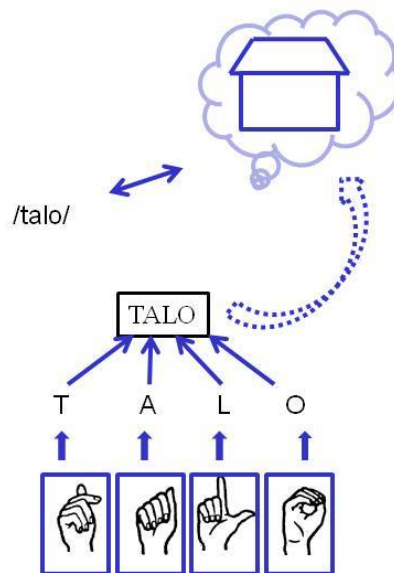
4.3.1 Three types of fingerspelling

Johnson (1994) presents three types of fingerspelling: careful fingerspelling, rapid fingerspelling and ASL signs derived from fingerspelling; in other words, a lexicalised fingerspelling. Patrie and Johnson (2011) give an in-depth description of the linguistic properties of the fingerspelled words, with categorisation similar to Johnson's in 1994. I will next undergo each variation of fingerspelling, its structure, form–meaning relationship, and function. Figures 10, 11, and 12 also present each type of fingerspelling, showing visually the relationship between the fingerspelling, the written form of a word, and the meaning of the word.

Careful fingerspelling is typically used when a word is introduced for the first time in a narrative or a dialogue. The focus is on individual signs that represent letters of the written characters. The signer will often signal that a fingerspelling is about to occur. In an ASL context this is done—for example—by pointing to the dominant—fingerspelling—hand with the non-dominant hand, yet this is not what a FinSL signer would do. Careful fingerspelling is relatively slow and the signs are produced at a relatively even rate, with “the impression of a smooth and even rhythm” (Patrie & Johnson 2011: 90-91). Patrie and Johnson (2011: 74-75) assume that careful fingerspelling is done in order to give a precise version of the fingerspelled word so the receiver can ‘retrieve’ the appropriate template and access the meaning of the word.

The idea of *a template*, whether a fingerspelled template or a template for the printed word, is crucial in helping to understand how signers relate to the meaning of the fingerspelled word. In short, what Patrie and Johnson (2011: 29; 154) mean by a ‘template’ and how a template is used when a receiver accesses the meaning of a fingerspelled sequence, is that the “fingerspelled sequence is converted by the receiver to an *image* of a written word with which they are familiar.” Figure 3 depicts the connections between a carefully fingerspelled word, written and spoken form of the word and the meaning. Following the arguments put forward by Patrie and Johnson (2011: Fig 5; Fig 24), and applying it to FinSL context, when a signer of FinSL fingerspells T-A-L-O (*talo*, pronounced as

/talo/, i.e. ‘house’), the receiver decodes the sequence of signs, converts them to an image of written characters, and retrieves the Finnish word that corresponds to the written



sequence.

Fig. 3 Careful fingerspelling of *talo* (‘house’)

Let us apply this argument to the context of this study. When a FinSL signer fingerspells the English word H-O-U-S-E to another FinSL signer, both the signer and the receiver are bilingual in FinSL and Finnish, and English is a foreign language to them. Without knowing the exact process these people undergo in order to access the meaning of the word, it is safe to say that the process is, indeed, complex and cognitively demanding. The form–meaning relationship is also very much multimodal and multilingual and becomes even more so when one also considers the mode of mouthing.

Rapid fingerspelling, on the other hand, is employed when focusing more on the meaning of the fingerspelled lexeme than the spelling of the word. Rapid fingerspelling often occurs after a word has already been introduced through careful fingerspelling (Johnson 1994a). As compared to careful fingerspelling, the production of rapid fingerspelling occurs

in a different pattern and has a different linguistic structure (Patrie & Johnson 2011: 90-91) because of the difference in function between careful and rapid fingerspelling. In rapid fingerspelling, one focuses on the spoken language word rather than on the individual signs, and its function is therefore “to recall an already active template of a word in a fast and efficient way, using just enough information for the receiver to get the meaning without wasting time or effort on the exact details that are necessary to activate the template in the first place” (Johnson 1994b, as cited in Patrie & Johnson 2011: 89). In rapid fingerspelling, fingerspelled tokens have changed their linguistic structure and the fingerspelling is ‘less complete’ than careful fingerspelling. Signs are missing, strong coarticulation occurs, and signs blend together. A fingerspelled word is very similar to the structure of a sign, “a set of movements and postures of the hand” (Johnson 1994b, as cited in Patrie & Johnson 2011: 89).

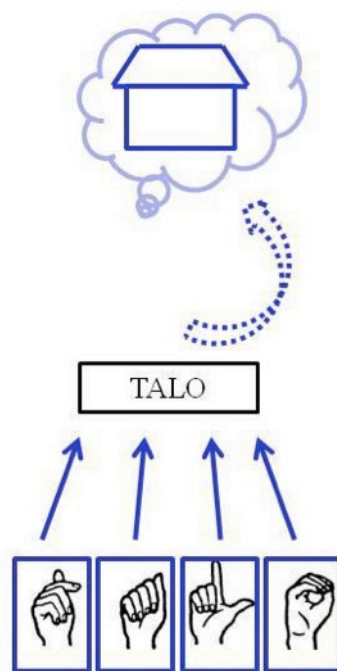


Fig. 4 Rapid fingerspelling of *talo* ('house')

This is a very similar view of fingerspelling to that taken by Wilcox and Akamatsu (see section 4.3). However, Patrie and Johnson (2011) emphasise that even if it is possible to

see the cumulative dynamic movement patterns within a word in rapid fingerspelling, it is misleading to refer to those characteristics as ‘shapes’ or ‘outlines.’

Rapid fingerspelling actually functions as a temporary sign, *a nonce*. Forming a nonce for the purpose of one conversation only is a very common practice for signers in a FinSL context also. When a fingerspelled word must be produced again and again, certain processes start to occur in production (Valli 2001), for example, deletion of some signs and change of location or handshape⁹ and a temporal sign is created as a result of lexicalisation of fingerspelling in the duration of one conversation. Figure 5 presents the relationship between a nonce, evolved from fingerspelling, and the meaning of that nonce.

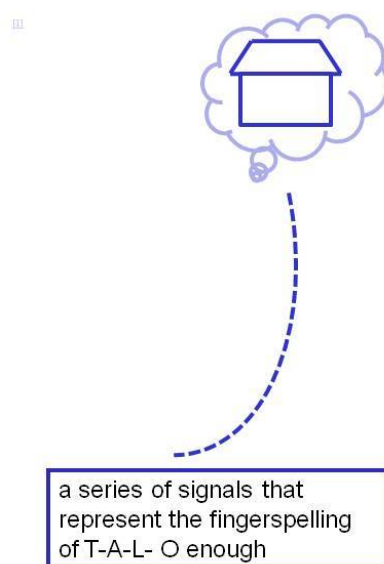


Fig. 5 Rapid fingerspelling of *talo* ('house') as a nonce (modified from Patrie & Johnson, Figure 26, 2011: 139)

⁹ The eight changes were first introduced by Battison (1978) as follows. 1. Some of the signs may be deleted. 2. The location may change. 3. Handshapes may change. 4. Movement may be added. 5. The orientation may change. 6. Reduplication of the movement. 7. The second hand may be added. 8. Grammatical information may be included: the location of the hands can indicate a relationship between people or places, a change of direction, or verb agreement.

The third type, *lexicalised fingerspelling*, occurs when a sequence of signs that represent letters begins to act like one single morpheme, like a single sign. Lexicalised fingerspelling is a very common phenomenon in ASL (Battison 1978, Valli & Lucas 2000: 64). Valli and Lucas (2000) also state that the process of lexicalisation begins very quickly.

Due to the extensive collection of FinSL signs for sign language dictionaries in Finland, lexicalised fingerspelling has also been studied in Finland, although fingerspelling of other types has not been researched very extensively. Jantunen and Savolainen (2000) have studied FinSL signs that include fingerspelling and define lexicalised fingerspelling as the crystallised fingerspelling of at least two manual alphabet signs attached to each other with a movement. Such signs are—for example—the FinSL sign for TV or Finnish *televisio* and the FinSL sign for Tuesday or in Finnish *tiistai*. In comparison to ASL, FinSL does not seem to have lexicalised fingerspelling created via the newer manual alphabet, in which each and every letter of a Finnish word would be produced. However, at least two such signs originate in the older manual alphabet; namely, the sign EI, ‘no,’ originating from LETTER-E and LETTER-I, and the sign KYLLÄ/JOO, ‘yes,’ originating in LETTER-J and LETTER-O (R. Takkinen, personal communication, August 14, 2012).

In addition to these three—careful, rapid, and lexicalised fingerspelling—a fourth situation for the use of fingerspelled signs exists; namely, fingerspelling letter by letter. In letter by letter fingerspelling, the focus and motive of the fingerspelling is to communicate what letters in the Roman alphabets are represented sequentially; this type of fingerspelling resembles a spoken event in which a person names the letters in a word one by one, using their English or Finnish names; for example, /ɛm si:/, for ‘Mc.’

4.4 Mouthing

When analysing mouthing in relation to fingerspelling, the crucial questions are: ‘Is mouthing part of the lexical unit of a sign or done at the same time as a sign?’ and,

‘What is the relationship between mouthing, fingerspelling, signing, and spoken or written language?’

Sign language linguists do not share the same view on the linguistic nature of mouthing. According to Keller (2001: 191) three approaches basically exist to how linguists see mouthing in relation to sign language: some neglect the grammatical relevance of mouthing and see it as a language contact phenomenon, while other researchers consider mouthing an integral part of the grammar and lexicon of sign language. The third way, advanced by Keller himself, is the so-called kinematic description of mouthings and mouth gestures. According to this view, mouthings reflect the patterns of articulatory actions prominent in the visual perception of voiced speech.

Researchers use different terms for mouthing depending on whether mouthing is seen as mouth patterns derived from spoken languages (Boyes-Braem & Sutton-Spence 2001). In all, most of the researchers, including the researchers of FinSL, make the distinction between mouthings and mouth gestures. Mouth gestures are seen to be formed *from* within the sign languages, and as idiomatic gestures part of a sign language morpheme, while mouthings are derived from a spoken language. I will concentrate on discussing the latter, because that is the form of mouthing that occurs when fingerspelling an English word.

Whether mouthings are coincidental in or part of sign languages has been discussed lately by the sign language researchers, resulting in no consensus (see, e.g. Boyes-Braem & Sutton-Spence 2001). Johnston and Schembri (2007: 184) contend that the enormous amount of variation in mouthing makes it difficult to say whether mouthing should be considered a result of contact between a sign language—in their study, Auslan—and a spoken language such as spoken English, or as a part of the structure of particular signs. I will next summarise what has been said of mouthings in FinSL, then return to ‘the debate about mouthings’ by discussing a multidimensional view of mouthings. My intention is to discover what is said of mouthing that might contribute to an analysis of mouthings that occur in the intersection of at least three different languages, FinSL, English, and Finnish.

Although mouthings that resemble Finnish words are of loan origins, they have a firm position in the language: deaf adult signers consider signing with the mouth completely shut atypical and difficult to understand (Rainò 2001: 41). The variation in mouthing evident in several signed languages (Boyes Braem & Sutton-Spence 2001: 5) has also been noted

regarding FinSL: the articulation and duration of the mouthing vary among signers depending on their linguistic and educational background. The use of mouthing also depends on the situation in question (Rainò 2001: 41).

Rainò (2001: 42) describes the variation and the relationship between FinSL and Finnish, and mouthings as follows: “The pressure from, or symbiosis with, the spoken language has inevitably left its imprints in their signing so that spoken Finnish is now interwoven in the Finnish Sign Language. At times the yarn appears on the right side of the fabric, now and then Finnish is left completely on the inside and then, suddenly, it reemerges when the register is changed to Finnish, fingerspelling or speech. This phenomenon could also be called code mixing, code switching and code change. However, these two codes in signed texts are produced simultaneously, whereas in spoken language, the switching occurs only sequentially.” Rainò also argues that mouthings are highly language and context dependent, which is apparent when signing occurs with deaf foreigners who do not know FinSL. Signers “switch to manual signing without any use of mouthing to perform an Everyman’s lingua franca” (Rainò 2001: 41). However, Rainò contends, mouthings are unquestionably part of FinSL, and as a consequence, mouthings are acquired with manual signs before or without an equivalent knowledge of Finnish words, for example, in the cases of small deaf children and deaf immigrants (Rainò 2001: 42)¹⁰.

It is customary to use the International Phonetic Alphabet (IPA) to transcribe mouthed imitations of words silent or audible (see, e.g. Rainò 2001: 43). I will also use the IPA in my transcription.¹¹ Here is an example from Rainò (2001: 44):

hands	<u>MUST</u>	<u>CHANGE</u>	<u>NEW</u>	<u>DOOR+det</u>
<i>mouth</i>	[pi]	[va]-- /	[uu]	[ov:i]
Finnish	pitää	vaihtaa	uusi	ovi
English	(must)	(change)	(new)	(door)

¹⁰ A deaf immigrant told in an interview how he had acquired the mouthing simultaneously to signs without knowing Finnish when learning FinSL. After that he learned Finnish words by accessing the meaning of written Finnish by remembering the manual sign used with the particular mouthing (Tapio & Takkinen 2012).

¹¹ The duration of mouthing is marked underlining the accompanying manual signs glossed in English. The imitated word models are presented in Finnish with their English equivalents. Pausing between signs is marked by /.

Ebbinghaus and Hessmann (2001) take a rather drastic view of mouthings in their research on German Sign Language. In their view, sign language is a system that organises the interplay of *independently meaningful* manual, nonmanual, and spoken units, as the title of their article states. Sign language is multidimensional communication, they argue: manual signs, mouthings, and mouth gestures are three different things. The views of Ebbinghaus and Hessman differ substantially from what they call a 'sign-centred perspective,' which sees such elements as phonological components of manual signs. In their opinion, neither mouthings nor mouth gestures should be regarded as components of manual signs; they state that "the three basic sign types are seen to be related by a contextualizing function that allows each in turn to contribute meaning to sign language utterances" (Ebbinghaus & Hessmann 2001: 133), and that mouth and articulators other than hands and arms provide information crucial to the understanding of signed utterances, but that the status of such information is unclear (Ebbinghaus & Hessmann 2001: 133). As a result, Ebbinghaus and Hessman (2001) contend that mouthing is a completely different type of meaningful unit and therefore regard the more prevalent view of mouthing as *reducing* many meaningful activities to one word-like unit type. Instead of seeing mouthings and mouth gestures as phonological components of manual signs, Ebbinghaus and Hessman (Ebbinghaus & Hessmann 2001: 134) view mouthings and mouth gestures as the alignment and cohabitation of distinctly meaningful units: "Meaningful activities of the hand can co-occur with meaningful activities of other parts of the body." They base this claim on the fact that, in general, deaf people are familiar with written manifestations of words, and can often identify words by lipreading (Ebbinghaus & Hessmann 2001: 135). They state that mouthings are words as faced by deaf people in direct interaction (Ebbinghaus & Hessmann 2001: 136). Another justification they offer for their argument is that if mouthings and mouth gestures were part of manual signing, mouthings and mouth gestures should be an obligatory part of the manual sign, and not a meaningful element of their own. However, they do not mention that mouthing seen in the sign language communities is not 'just' the visual representation of speech. A rather unexplored yet

highly interesting phenomenon is that, according to Brennan (1992: 95), mouthing by signers sometimes differs from the mouthing that occurs when hearing people speak, which is a visual representation of uttering words. Mouthing that represents the word forms of spoken languages has also evolved to suit the visual medium and the visual culture of the Deaf community (R. E. Johnson, personal communication, April 22, 2009).

Interestingly, yet not surprisingly, Wilcox does not mention mouthing at all in his report on research into fingerspelling. Mouthing has been in a similar position to fingerspelling in sign language research: mouthing has been put aside because of its foreign nature, for not being ‘real sign language.’ Patrie and Johnson (2011), on the other hand, devote discussion in their work to the mouthings that occur very often in relation to fingerspelling. Patrie and Johnson (2011) have, for example, discovered a great variability in mouthing patterns, and that the signers might not use the correct pronunciation—correct from the viewpoint of English phonetics—for the word in question. For example, the word ‘antique’ may be pronounced more like ‘anti-cue’ (Patrie & Johnson 2011: 38). Also, Rainò (2001: 42) mentions mouthing in relation to fingerspelling, stating that fingerspelling can be a trigger to eliciting mouthing.

4.5 Mouthing when fingerspelling English words in FinSL context

I have discovered no previous study that discusses mouthing and how mouthing is used when fingerspelling English words in a FinSL context. However, based on my observations and discussions with the members of the FinSL community, Finnish signers seem to favour mouthing that resembles the movement of the lips when an English word is ‘read as written,’ with sound and letter correspondence, rather than producing the mouthing of a pronounced English word. In other words, mouthing follows each letter fingerspelled. For example, mouthing is /house/ for H-O-U-S-E instead of /haʊs/ and /george/ for G-E-O-R-G-E instead of /dʒɔrdʒ/. This actually resembles how Finnish speakers pronounce words when they do not know how to pronounce an English word correctly, or want to highlight how a word is written. Figure 6—and the video clip,

'language.wma,' included in the electronic version of this study—shows how the English word *language* is represented in a spoken, written, and signed form when fingerspelled carefully.

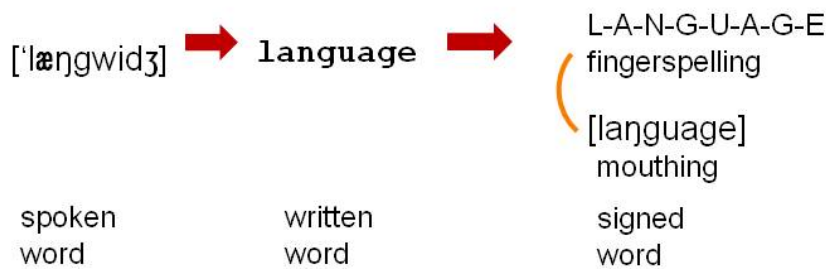


Fig.6. Mouthing when fingerspelling the English word *language* in a FinSL context

Signers, I contend, very rarely form English words as natives do; native-like forming of English words only occurs when the word or name is very familiar (for example, 'New York,' or 'Word' as in Microsoft Word) and it emerges with a sign instead of fingerspelling. Mouthing when fingerspelled at the same time also comes in a 'written from' in cases in which the signer knows how the word is pronounced. As a sign language interpreter, I was taught in particular by FinSL people to use this kind of mouthing to *support* fingerspelling. However, for me at least, it has remained uncertain whether mouthing actually supports fingerspelling or vice-versa. I assume that the answer to the question 'Does fingerspelling or mouthing play the superordinate role in an interaction?' varies according to situation.

What could be the reason for mouthing 'as written' instead of silently forming words as pronounced by English speakers? One reason is likely that, when mouthing 'as written,' fingerspelling and mouthing proceed simultaneously. Ebbinghaus & Hessman (2001: 150) argue that the multidimensionality of sign language makes the integration

possible for such heterogeneous sign types. Yet one might assume that integration must involve some degree of simultaneity in order for eyes to perceive both channels.

In the case of fingerspelling letter-by-letter, one can hypothesise on the basis of the arguments by both Ebbinghaus and Hessman (2001) regarding independently meaningful units and by Patrie and Johnson (2011) that three possibilities for mouthing should exist in a FinSL context: fingerspelling without mouthing, mouthing the English names for the alphabet, or mouthing Finnish names for the alphabet.

Research with a large collection of naturally occurring data would offer answers on how and when mouthing might occur in relation to fingerspelling. The goal of this study, on the other hand, is to reveal an intriguing case of highly complex, multilingual, and multimodal practice evolved among the users of FinSL.

5 DESCRIPTION OF DATA AND TRANSCRIPTION

5.1 The data

This thesis concentrates on three video-recorded situations: 'The Aviator', 'Guitar' and 'Ultimatum'. The first two are from a video conference that was part of an English course 'Beehive' (Koivistoinen & McCambridge 2005). The complementary data, 'Ultimatum', is on a video-recording of a FinSL conversation between two participants.

Both sets of data are part of the larger data collected for PhD research (Tapio, in progress). Next, I will shortly introduce the data collected for PhD research, and then go on to explaining the relationship of 'The Aviator', 'Guitar' and 'Ultimatum' to other sets of data. The analysis rather concerns those three video-recorded situations. However, my analytic eye is very much influenced by the information that I have been gained through an analysis of the data around these data sets; for example, through interviews with the participants and other observations on multimodal actionsbbb FinSL signers take in relation to English language.

The PhD study utilises multiple data (Fig. 7) from both educational settings and everyday situations outside the formal education. The first set of data was collected on the web-based course including classroom situations documented by video recordings and fieldnotes. The second set of data for closer survey (e.g. interviews and video diaries) was collected from a focus group of deaf participants (Kuure & McCambridge 2007, McCambridge 2007). The 'Ultimatum' is the third complementary data set which was collected in order to shed more light in the action of fingerspelling English words. All in all, since the research framework is ethnographic in nature, one crucial goal has been to do fieldwork in the community, understand the social practices of the community through interaction with the participant and by collecting multiple data from and with the participants.

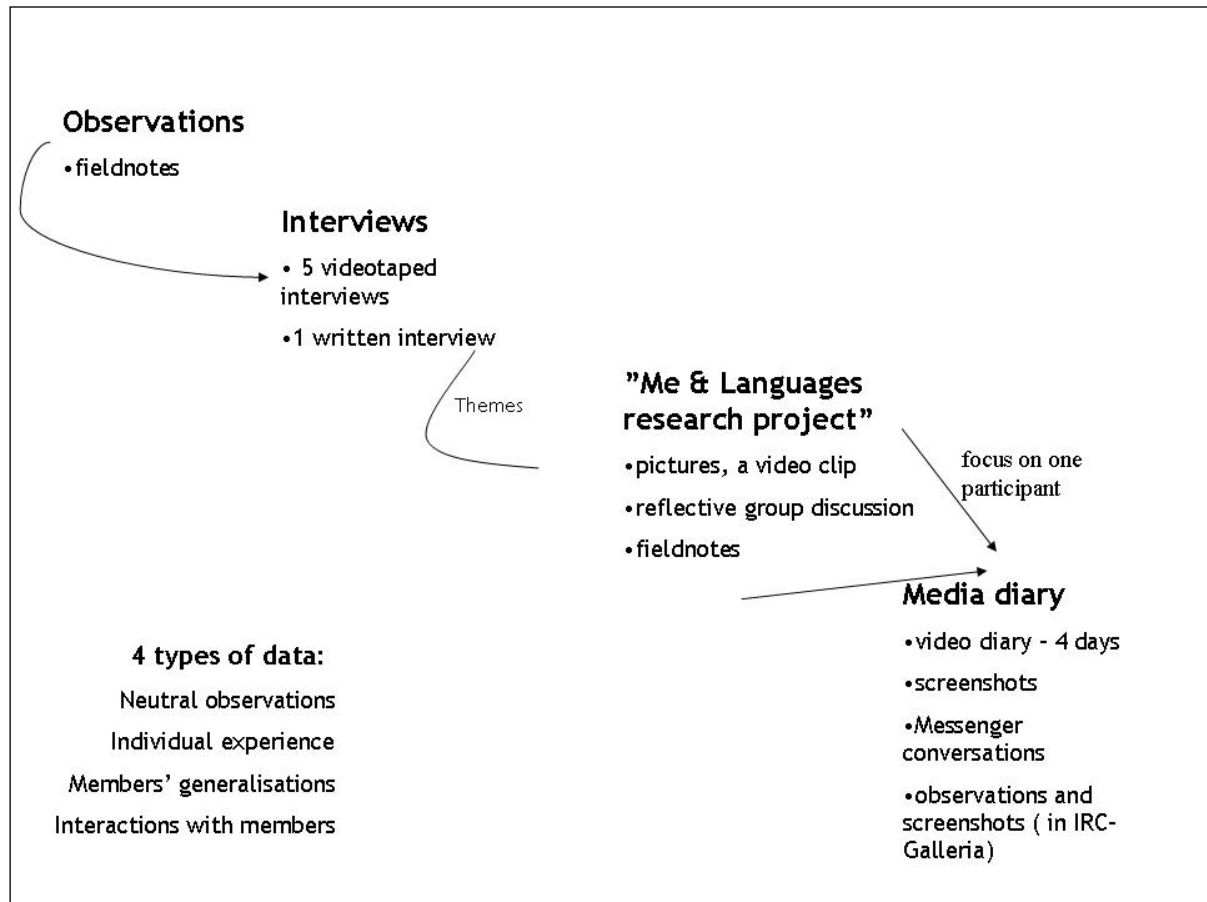


Fig. 7. The data for the PhD study (Tapio, in progress)

In this 'pro gradu' study the analysis is rather strictly on the three video-recorded situations, however, the analytic eye is very much influenced by the information that has been gained through analysis of the data around these data sets, for example, interviews of the participants and other observations on multimodal actions FinSL signers take in relation to English language. The report of the ethnographic study will be available in the future (Tapio, in progress).

5.2 A word on multimodal transcription

Describing and analysing sign language data from face-to-face interaction has been a huge challenge and a main goal for this study. I have experimented with several ways of

transcription methods to suit the analysis and the aim of this study; after all, an analyst should use different notations depending on the focus of a study, because creating transcription already constitutes the beginning of the analysis (Norris 2004: 78).

In the beginning I modified conversation analysis transcription in order to describe interaction. However, since one interesting element of an interaction is the overlap of several communicative modes and the multimodal density of the interaction, I chose the form of a *partiture*¹² to highlight the overlap (see, e.g. Haddington 2005). However, the *partiture* transcription with signed language was insufficient to describe the interaction, and it has later been enriched with still pictures taken from the video to show, for example, the body positions and gazes of the participants. Also, McIlvenny (1995) and McIlvenny and Raudaskoski (1994) have used still pictures, and series of still pictures, when reporting signed interaction. They have also integrated symbols in the pictures; for example, to emphasise the direction of gaze. However, I kept the written transcription and glossing separate from the pictures. The symbols I have used in transcription and glossing are presented in appendix 2.

I have used ELAN (EUDICO Linguistic Annotator) as a tool for working with the videos and analysing the interaction. However, I find ELAN insufficient to present the data in such a way that readers might follow the analysis. In many ways, the transcription here owes a lot to Sigrid Norris' multimodal transcription (Norris 2004). Describing and analysing sign language data multimodally has been a huge challenge and one of the main goals for this study. I have experimented with several ways of transcription methods to suit the analysis and the aim of this study, after all, analyst should use different notations depending on the focus since making the transcription is already the beginning of the analysis (Norris 2004: 78).

5.3 Ethical considerations

Anonymity is one of the most difficult aspects of this research to maintain. Therefore, I have chosen to include as little information as possible on the research participants and

¹² *Partiture* is a score in manuscript for music in which simultaneously played notes are in vertical alignment.

have carefully used pseudonyms when referring to them. However, it is still very likely that the research participants will be identified by the members of the Finnish Sign Language community because the community is relatively small and its members and institutions are well known to the members. However, I want to emphasise that I have not tried to guarantee the anonymity only via pseudonyms but also by changing details in the data such as colour of hair in pictures.

Before collecting the data at the school, the personnel at the school informed me that I was permitted to conduct fieldwork there because it is a place of research and all the parents of pupils at the school have given their consent for their children's participation in research. However, I collected signed consent forms from the parents of the children. As I had promised to use the video recordings only for myself, I have heavily modified still pictures used in the multimodal transcriptions in such a way that the participants remain anonymous. Also, I have collected signed consent forms from most of the participants that appear in the images when they reached the age of 18.¹³

¹³ When I asked for consent from the participants themselves, from those who at the time of research were still underage, they willingly gave consent for me to publish videos or pictures taken of them "wherever you like." This was rather unexpected, yet made me conclude that the participants in this research are very aware of the need for research on FinSL, and for this reason want to give their support by offering the researcher a possibility to prove her claims by showing some of the actual data. The video recorded material is not included in this publication because the consent forms were collected in summer 2012, leaving no time to plan a multimodal publication.

6 ANALYSIS OF ‘THE AVIATOR’, ‘GUITAR,’ AND ‘ULTIMATUM’

The analysis proceeds from ‘The Aviator’ and ‘Guitar’ to ‘Ultimatum’. In ‘The Aviator’ the scope of analysis is at its widest: it aims to capture the multimodality of the interaction in the classroom, and how the participants seem to change from one channel and mode to another. ‘The Aviator’ will also lead to a focused analysis of the modification of fingerspelling.

‘Guitar’, on the other hand, will describe the multimodal interaction on a general level, yet will focus on multilingualism and to an even greater extent on the modification of fingerspelling than has been in ‘The Aviator’. At this point, I will mention and discuss mouthing and the section will bridge to an analysis of ‘Ultimatum’ in which the focus is on the interplay of mouthing and fingerspelling.

The analysis of ‘Ultimatum’ is the narrowest and most detailed of the tree. It will concentrate on the interplay of fingerspelling and mouthing and how fingerspelling is now part of an informal conversation. When a proper name *Jason* is fingerspelled several times, changes occur in the form of the fingerspelled name. I will analyse the manual fingerspelling and the mouthing, and explain in detail the change of the form.

Since ‘The Aviator’ and ‘Guitar’ are both from the same video-conferencing situation, description of the context (the activity, place and participants) in the beginning of the next section applies also to section 6.3 on ‘Guitar’. The names of the research participants have been changed and some of the pictures heavily modified in order to guarantee anonymity.

6.1 Categories for communicative modes in ‘The Aviator’ and ‘Guitar’

As Norris suggests (2004, see also section 3.4), the first step for an analyst is to discern the communicative modes used in the given interaction. Since the list of communicative modes presented earlier in Table 1, section 3.4, is inadequate for analysing signed

interaction from a multimodal perspective, this section will present a list of communicative modes that would cover the most crucial communicative ones used in the situation that is the focus of this research.

The communicative modes for this study are presented in Table 2. The ones not listed among the communicative modes suggested by Norris are given in bold. It is important to bear in mind that this list of communicative modes is applicable to the analysis of this particular data, 'The Aviator' and 'Guitar', and that many of these modes overlap, and could be categorised as one communicative mode in another analysis. For example, fingerspelling and mouthing might easily go under a 'Finnish Sign language' category; however, by separating them into three modes, I want to stress that actors in these particular situations use communicative resources—in particular those on offer in signed language—by efficiently modifying and even splitting simultaneously emerging modes into two separate modes.

Communicative modes

- 1) **Finnish Sign Language**
- 2) **Fingerspelling**
- 3) Spoken language
- 4) **Mouthing**
- 5) Embodied print (typing)
- 6) Disembodied print
- 7) Gesture
- 8) Gaze
- 9) Proxemics
- 10) Posture
- 11) Head movement
- 12) Layout

Table 2. Communicative modes in the data (adapted from Norris 2004)

As noted before, the view on interaction not only concerns modes but also the media the modes are utilising. In Figure 8, the communicative modes are presented according to the medium they use. As the picture depicts, mouthing here is seen as a visual representation of spoken language.

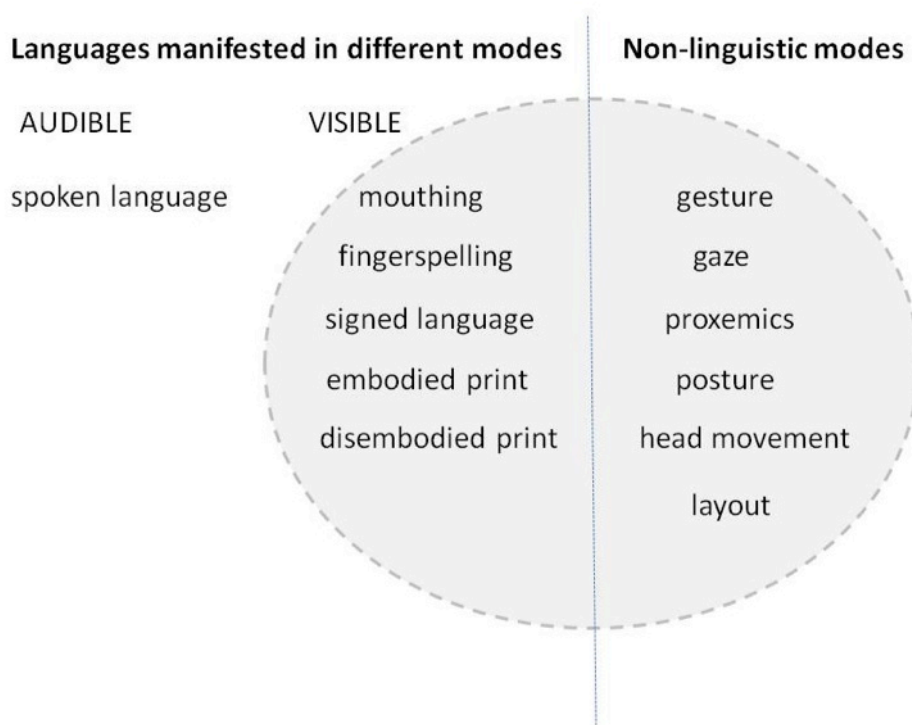


Fig 8. Communicative modes in the data according to the sensory channel

It is important to remember that non-linguistic modes refer to those elements of interaction not part of the linguistic material of FinSL¹⁴. This information is relevant in particular in the case of heterogeneous group of signers in which some of the participants have access to a medium the others do not. In particular, shifting from one medium to another is a special feature of action in these kinds of interactional events.

¹⁴ Gesture, gaze, posture and head movement can have a grammatical function in signed languages, as well as be part of the morpheme. However, in sign interaction similarity as in all human interaction, there are gestures, gazes etc. that are non-linguistic, yet carry meaning in interaction.

6.2 'The Aviator'

'The Aviator' is a twenty second clip that captured a very hectic moment in a videoconference between a group of deaf and hard-of-hearing users of FinSL at Merikartano School and a group of hearing pupils at a Spanish upper secondary school in Deltebre. The videoconference was part of an English language course entitled 'Beehive' that had been organised for five schools.¹⁵ In the videoconference, the Merikartano School participants were in contact for the first time with Deltebre.

Communication between the two schools was transmitted via Windows Live Messenger videoconferencing. Only the visual channel was used: the pupils communicated via written text and emoticons. Both parties also had a small webcam, a simplified video camera for web interfaces focused on the person or persons sitting at the computer. In Merikartano, a computer screen with a received picture and message box were projected onto a white screen via a video projector. Participants in the classroom could see the chat box and the webcam picture of Merikartano and Deltebre. The text being typed for Deltebre was also visible to other pupils. Deltebre's typing was not visible until the Deltebre pupils pressed the enter key; in other words, sent the texts for the receiver to see.

The video conference was the first time that the pupils saw each others' faces, so in the beginning everybody introduced themselves in front of the camera. After introducing themselves, the pupils competed in a quiz. The questions had been created beforehand by the pupils. Teachers and I were mostly just supporting and acting as spokespersons in the classroom. The situation was relaxed and informal and the pupils decided themselves on how to negotiate the answer to the quiz questions.

Figure 9 shows how the crucial actors in 'The Aviator' were placed physically in the classroom in relation to each other and to the white screen.

¹⁵ Beehive had 120 participants from five schools: Merikartano school in Oulu (both deaf and hard-of-hearing pupils), Kajaani teacher training school, Sodankylä Syväjärvi school and two schools from Spain, upper elementary schools of Deltebre and Tortosa. The project took place in spring 2005. (Koivistoinen 2012, Tapio, in progress)

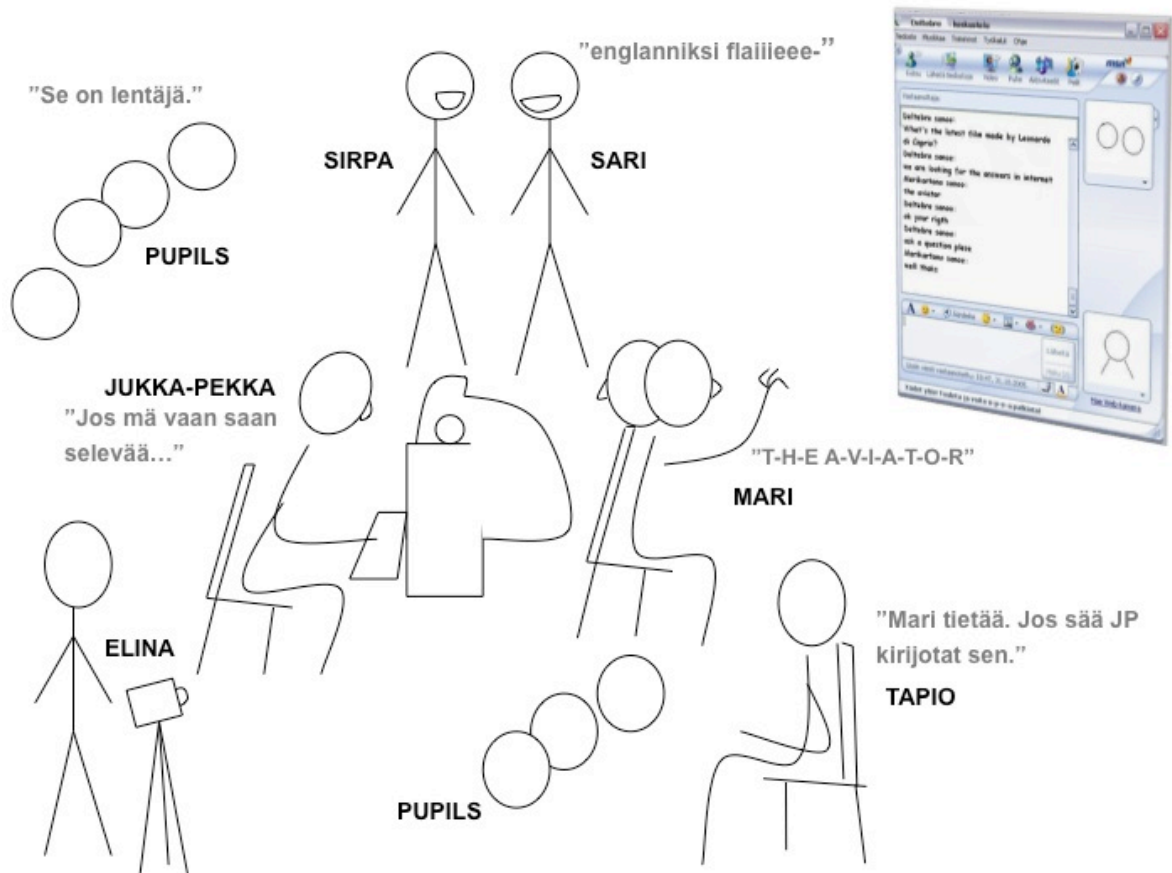


Fig. 9. 'The Aviator': the participants and the physical organisation of the classroom

In 'The Aviator', the active people are in particular Jukka-Pekka and Mari. JP is a hard-of-hearing boy who has been at school in the group of several deaf pupils and the language of instruction for their class has mostly been FinSL. He is fluent in FinSL, although he chooses to use spoken Finnish for hearing people who would be fluent in signing too. His main way of communicating is spoken Finnish with a hearing aid. That he has been part of a group of signers for many years, and schooled in a visually oriented place in which teaching and school environment is designed for Sign Language people, is visible in his way of using visually oriented practices; for example, in scanning the environment for signing (Ramsey & Padden 1998). Mari is a deaf, native FinSL signer from a hearing family. In the situation at hand, she has access only to what people sign and express in gestures, expressions, and what is written on the board or the screen. All the teachers are hearing but fluent in FinSL, Tapiio in particular. Close to him, is a group of deaf boys,

while most of the hard-of-hearing and deaf girls are close to Sari and Sirpa at the back corner of the classroom.

In the quiz the schools are taking turns in asking questions. In the middle of the quiz Deltebre asks (appears typed on the white screen): *What is the latest film made by Leonardo di Caprio?* The situation that follows is quite hectic. An abridged transcription of the interaction during 'The Aviator' as a whole is presented in transcription in appendix 2, and partly in the next section, enhanced with still images captured of the video. In short, immediately after the question '*what is the latest film...*,' Tapio and Mari begin to sign with each other, and concurrently, Sirpa, Sari, the girls, Jukka-Pekka and I discuss the possible answer. Tapio says to everybody else that Mari already knows the answer and suggest that Jukka-Pekka type the answer to Deltebre. Jukka-Pekka hesitates on whether he understands what Mari is going to sign to him. At the same time, the girls at the back say the title of the movie aloud in Finnish and Tapio says *Kääntäkää se* ('Translate it'). Sari starts to help the girls translate the title, and at the same time, Mari begins to fingerspell the title to Jukka-Pekka, who types the word to be sent to Deltebre. At the same time, Sari guides the girls to a wrong translation (*Flyer*). Tapio intervenes and explains to Sari and Sirpa why the movie is not called The Flyer but 'The Aviator' instead. Right then, the two teachers also notice that Mari and JP are already close to sending the right answer to Deltebre. Everybody focuses on what Mari and JP are doing. Soon the answer is typed and sent, and Merikartano gets a point.

All the action described above is transformed into a few short sentences on the Messenger window, which is also projected to the white screen (see Figure 10).

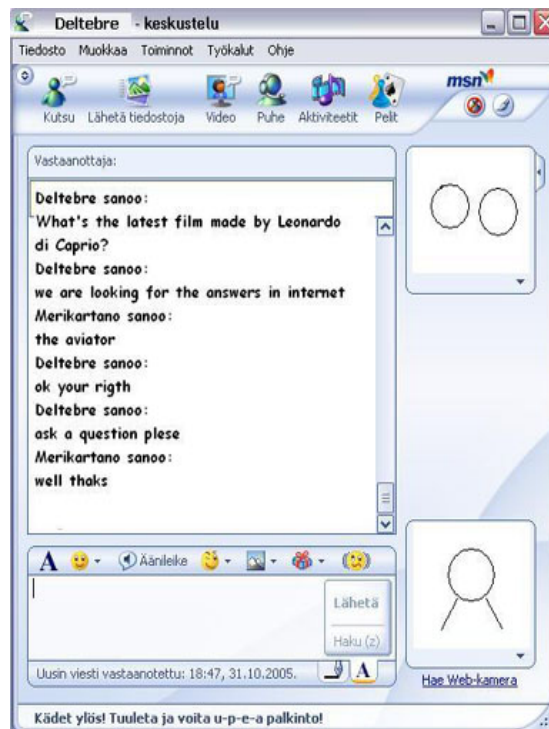


Fig. 10. 'The Aviator' - The Messenger window in the video conference

6.3 'The Aviator': multimodality in situ

In 'The Aviator' the interaction is multimodally dense: both visual and aural channels are used with many communicative modes. There are three languages involved, FinSL, Finnish and English, and those languages come in many modes: typed, written, spoken, signed, mouthed and fingerspelled. Gestures, pictures, text, postures and head movements are used together with linguistic modes. The participants have a lot to choose from, which demands a high level of attention.

The notation in plates one and two aims to present the multimodality, overlap and timing of different communicative modes and action occurring (see appendix 2 for transcription and glossing symbols). Still pictures of the video recording are put on the right hand side of the notation in order to give a clearer picture on the overlap of the two: speech among the teachers and the girls, and the mutual engagement of Jukka-Pekka (JP) and Mari.

It is a typical practice at schools for teachers to sign and speak at the same time when hearing, hard-of-hearing and deaf people are present, in particular when giving short instructions. Despite the obvious negative effect on the quality of both languages, this practice is the fastest way to communicate an utterance quickly to everybody present in the heterogeneous group such as this. A good example of this practice is when Sari draws everybody's attention to the whitescreen, on which the new quiz question has appeared (plate 1, lines 4-6). She initiates by using the exclamation *Hei!* which is not communicated in signing or gestures. When continuing with a question *kuka tietää* ('who knows'), she signs two signs of equal meaning, yet in FinSL adds a very iconic sign for 'ponder' or 'think hard'. Next, she points to the white screen with her left index finger with her whole arm extended (plate 1, line 6), and leaves her arm there to guide the gazes for a moment. This request, communicated with simultaneous, yet slightly different choices of words, works efficiently when aiming at getting everybody in the room to join in finding the answer to the question.

- 1 **Elina:** what's the latest film made by leo[nardo di ↑ca:]prio
 2 **Tapio:** [aa:]
-
- 3 **Sirpa:** a [haa (-)]
 4 **Sari:** [hei [kuka tietää]
 5 hey who know-3
 6 [KUKA TIETÄÄ POHTIA] *pointing to the blackboard →*
 7 **Elina:** do you [know]
 8 *leaning over to JP*
 9 **Tapio:** [mari]ainakin (0.6) tietää
 10 mari at-least know
-
- 11 **Elina:** mari (0.4) who knows
 12 **Tapio:** ymhn (.) no sä >jp säähän kiri- kirjotat vastauks
 13 well you jp you-CLI writ- you write>2 an
-
- 14 **Tapio:** sää kirjotat [vastauksen]
 15 you write answer-GEN
 16 **JP:** [no joo jos (.)]
 17 PRT yes if



Plate 1.

After Sari's communication, the teacher's and other participants do not seem to pay much attention to including everybody as recipients. Unfortunately, the other video camera did not record during 'The Aviator', so Tapio is not visible in the data. However, judging from his speech, which is hasty and fast (plate 1, lines 12-15), and from JP and Mari gaze in his direction every now and then when he is not speaking, Tapio shifts between signing and speaking.

Mari starts to fingerspell to JP (starting from line 34, plate 2). However, at the same time the teachers and the girls at the back continue to talk, some of them unaware that JP is just about to type the right answer to Deltebre.





34	Mari:	[T-H-E VÄLI A-V-] I	<i>looking at the blackboard</i>	
35		space		
36	JP:		<i>looks at mari, fingers on the keyboard, twirls his hands</i>	
37	Sari:	[englanniksi <fla:i:->]		
38		English-TRA <fla:i:->		
39	Tapio:	ei. the aviator		
40		NEG the aviator		
41	Sirpa:		<i>täällä täällä mari sormittaa sitä</i>	
42			<i>here here mari fingerspell-3 it-PAR</i>	
<hr/>				
43	Tapio:	[>nii mutt se on vira-]	<i>the aviator on se elokuvan nimi (.) [se suo]meksi on</i>	
44		yes but it is offi-	<i>the aviator is it movie-GEN name it Finnish-TRA is</i>	
45	Mari:	LETTER-T LETTER-H JOO		
46			<i>looks at jp, looks at the blackboard</i>	
47	JP:	types THE		
48	Sirpa:	ai jaa (.) aha	[aha]	
49	Elina:	[täällä tullee]		
50		here come		

Plate 2.

Lines 34-50 (plate 2) show a good example of two discussions going on simultaneously, one in the auditory channel and one in the visual channel. Not all present are aware that there actually are these two levels of interaction going on.

6.4 'The Aviator': participation frameworks

When focusing on JP in the analysis, the key issue is access. JP has partial access to both auditory and visual affordances. The access is limited due to his hearing impairment and the visual restrictions of the place in question.

In the data, we can see how JP is actively seeking access to different modes. This is visible in his embodied action: he scans the environment with his eyes and actively turns his head while scanning, craning over the monitors that restrict his vision. He is aiming to find

the answer for the quiz question and type it to Deltebre, choosing and creating the most effective ways to complete the task.

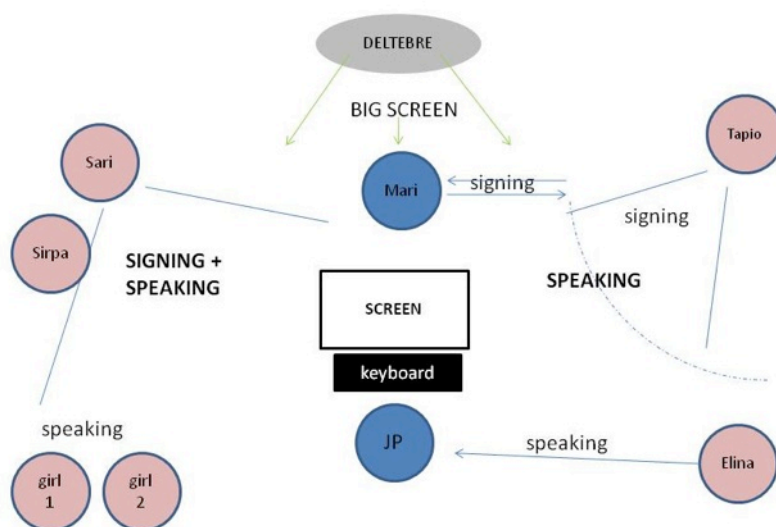


Fig. 11. Scanning – many options for emerging participation frameworks

Figure 11 represents visually the first phase of the interaction, which from JP's point of view is a selecting and scanning phase. There are many options in how and with whom JP might create a participation framework. JP turns his head, directing his ear to the sources of talk, and scans the environment with his eyes for any signing occurring. He is simultaneously alert and ready to make contact with Mari because he received a hint previously that Mari has the answer. However, at this point Mari is in the middle of negotiating with Tapio by signing. The manner in which JP actively scans the environment for possible signed information is a typical way of establishing participation framework in the Deaf community (see, e.g. McIlvenny 1995, Ramsey & Padden 1998). The turning of one's ear towards a source of sound without eye gaze is a very familiar practice among people with a hearing aid. For that reason, I suggest that JP combines both Deaf and hard-of-hearing practices when searching for the possible answer he is supposed to type.

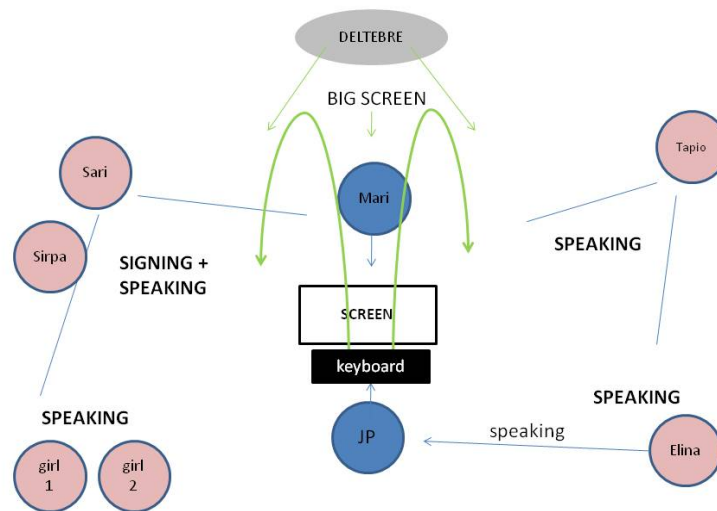


Fig. 12. JP – Mari creating a participation framework

After a while, both Mari and JP begin to work together on the answer. JP stretches himself towards Mari, and Mari turns her body a bit to the direction of JP who now is concentrating on Mari. They establish a participation framework by mutual gaze and orientation towards each other; Mari starts to fingerspell to JP, who is ready to type the word with the keyboard in front of him.

When a participation framework is established, Mari and Jukka-Pekka engage in achieving the goal as quickly as possible via a sequence in which, after each fingerspelled sign, Jukka-Pekka types the equivalent letter the sign refers to. A little break occurs in this smooth action when Jukka-Pekka does not perceive the LETTER-O in Mari's fingerspelling but mistakenly types S instead. Simultaneously to typing the letter, Jukka-Pekka quietly whispers *äs* ('es') either to himself or to someone else in order to obtain assurance. However, Mari, who is reading Jukka-Pekka's typing from the white screen, responds immediately to his mistake and 'shouts' by modifying the movement of the sign LETTER-O. Simultaneously, several people in the room also remark to Jukka-Pekka in oral speech that it is LETTER-O instead of LETTER-S, yet they are late in time as compared to Mari's reaction. Jukka-Pekka corrects the mistake and the room falls quiet.

Despite this moment, Jukka-Pekka and Mari do not seem to pay any attention to actions around them. While they work together on the answer, a lot of talking still occurs around them. Obviously Jukka-Pekka can hear it, but concentrates fully on Mari's fingerspelling and typing. This is presented in Figure 13.

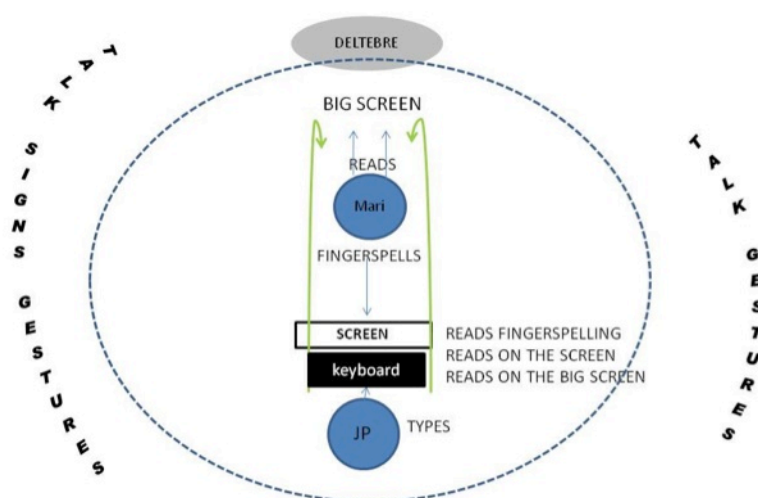


Fig. 13. JP and Mari in participation framework

When Mari and Jukka-Pekka have reached the last letter R, Mari signs 'enter,' puts her hands down, and continues to look at the white screen. Jukka-Pekka does not respond to that by pressing the enter key, for which reason Mari glances at him. At the same time, Jukka-Pekka establishes a contact with me to make sure the answer is correct and ready to be sent (see Figure 14 below). This initiation for interaction is very subtle and is actually interpreted as such on the basis of Jukka-Pekka's earlier use of myself as a source for English words. Here, Jukka-Pekka seeks assurance for the answer via a gesture—hand-on-enter-key, ready-to-press-it-down—and an utterance, *Sitte mennee...* ('Here it goes...') which is not followed by the action of sending the answer. This suggests that the gesture and utterance are working together as a question, "Is this ready to be sent now?" In the situation, I interpret his gesture-talk-action as a hesitation

and a question, and respond to it immediately with *jep* ('yep'). Almost simultaneously to my vocal answer, Jukka-Pekka presses the enter key.

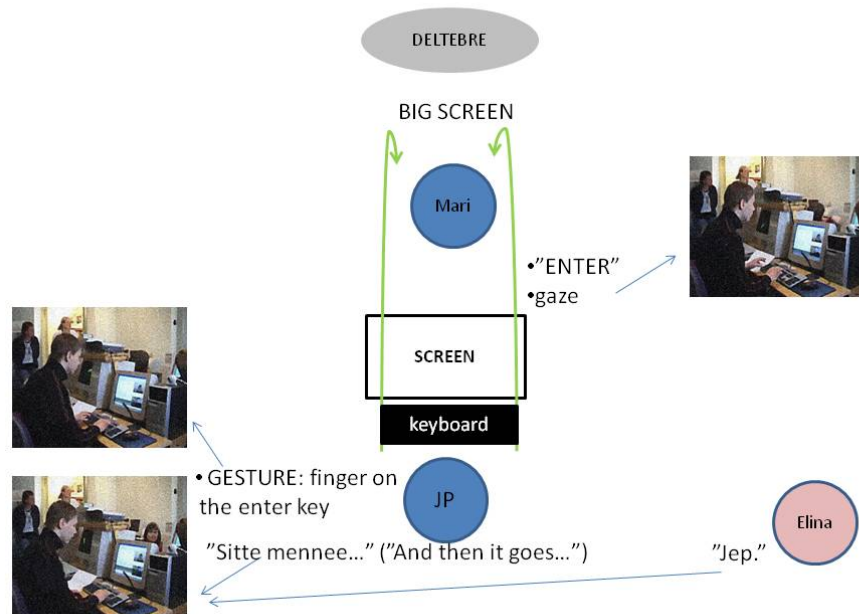


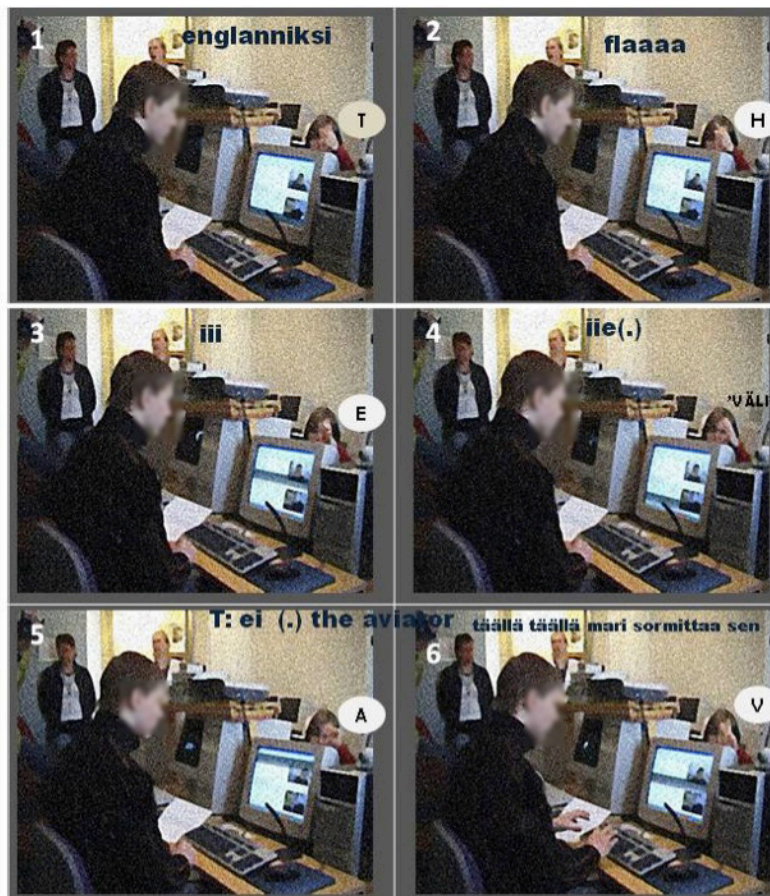
Fig. 14. JP makes sure the answer is right: two participation frameworks.

6.4.1 'The Aviator': Modification of fingerspelling

We can assume that Mari has fingerspelled *The Aviator* to Tapio once already on the basis of Tapio's two comments, *Mari tietää sen* ('Mari knows that') and *Jos sä Jukka-Pekka kirijotat* ('What if you, Jukka-Pekka, do the writing'). However, because computer monitors restrict the view, Mari's fingerspelling and signing to Tapio is not captured in the video recording.

At first, after Mari has oriented her body and hand to fingerspell the word to Jukka-Pekka, she begins with a rather quick, yet clear and precise way of fingerspelling, which is recognisable as a typical instance of a careful fingerspelling in which the fingerspelling is relatively slow and the signs are produced at a relatively even rate (plate 3, images 1-6). For

Jukka-Pekka to be able to type the word based on careful fingerspelling, he should either perceive the word as a whole and type it afterwards or type the word simultaneously to the same rhythm as the fingerspelling without gazing at the keyboard. Since Jukka-Pekka does not give Mari feedback for being able to type the word based on her fingerspelling, the message to Mari is that her fingerspelling is too fast for Jukka-Pekka. She stops fingerspelling and starts from the beginning (plate 4, images 9-10), this time using the fourth way fingerspelling can be employed when referring to words: fingerspelling letter by letter, naming the Roman alphabet one at a time in FinSL signs. Each sign has a short, beat movement, typical of letter-by-letter fingerspelling. As soon as Mari's fingerspelling and Jukka-Pekka's typing are synchronised, they engage themselves in a pattern that allows them to complete the task very quickly.

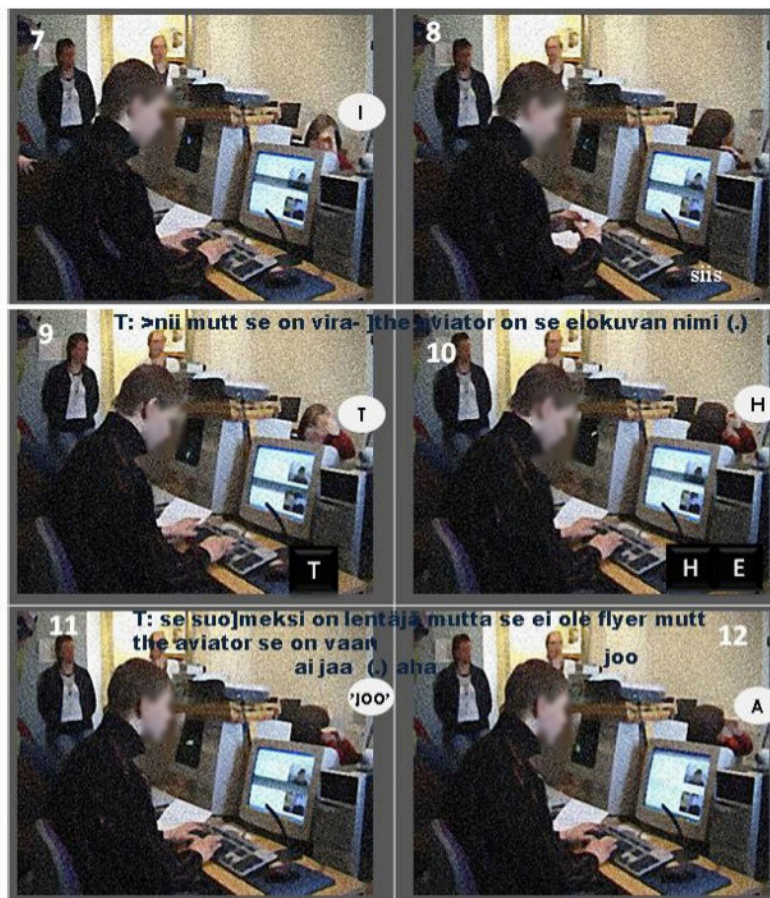


1 – 4
JP reads Mari's fingerspelling.
Mari cannot see JP's hands
behind the monitor.

2 – 4
Sari is helping two pupils at the
back with translating 'lentäjä'
(literal translation: flyer) into
English, and begins it by
uttering 'Flyer' very slowly
with a clear mouthing.

5 – 6
Tapio interrupts Sari by giving
the right answer. JP is still
looking at Mari and puts his
fingers on the keyboard.

Plate 3.



7
JP puts his fingers on the keyboard but does not type anything.

8
Mari looks at the big screen, JP 'suffles' his hands above the keyboard.

9 – 10
Mari starts fingerspelling the word from the begin, reads the typing from the big screen.

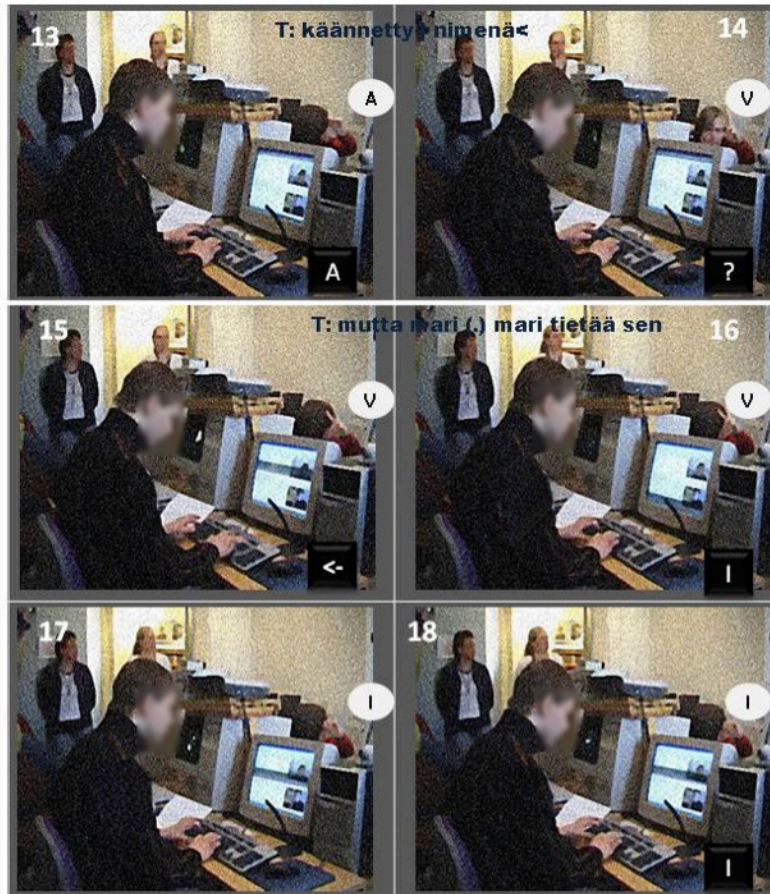
11 – 12
Mari reads from the big screen what JP has already typed and continues to fingerspell the word from the letter JP has reached in his typing.

Plate 4.

Before starting to fingerspell, Mari optimises Jukka-Pekka's access to her fingerspelling by orienting her body and hand toward Jukka-Pekka. Mari is a left-handed signer; in other words, the dominant hand in signing is the left hand. She rotates her upper body so that her left hand is above the monitor of Jukka-Pekka's computer, palm facing Jukka-Pekka as much as possible in her bodily posture.

Starting from image 15 (plate 5), Mari's left hand stays above the computer screen so that her palm faces Jukka-Pekka. However, her head is turned to the white screen, her eyes following the letters Jukka-Pekka is typing. Mari fingerspells a new letter as soon as Jukka-Pekka has typed the previous letter. Jukka-Pekka, on the other hand, checks each letter from Mari from her hand only, then shifts his gaze towards the keyboard to find the equal letter to type. Since Jukka-Pekka does not have to move his head in order to see the white screen, Mari's right hand, or the screen of his PC, it is difficult to say when he is looking at what. It is likely, however, that he used both the white screen and the PC screen to check if the letter he has typed is correct.

JP mistakenly presses S after Mari has signed LETTER-O (plate 6, image 22). Since the LETTER-O and LETTER-S are very much alike—both having no extended fingers in the handshape—especially from the angle Mari’s hand is towards JP, and the keys on the keyboard quite far from each other, it is likely that JP gets Mari’s fingerspelling wrong for LETTER-O.



13
Mari checks that JP has already typed letter A.

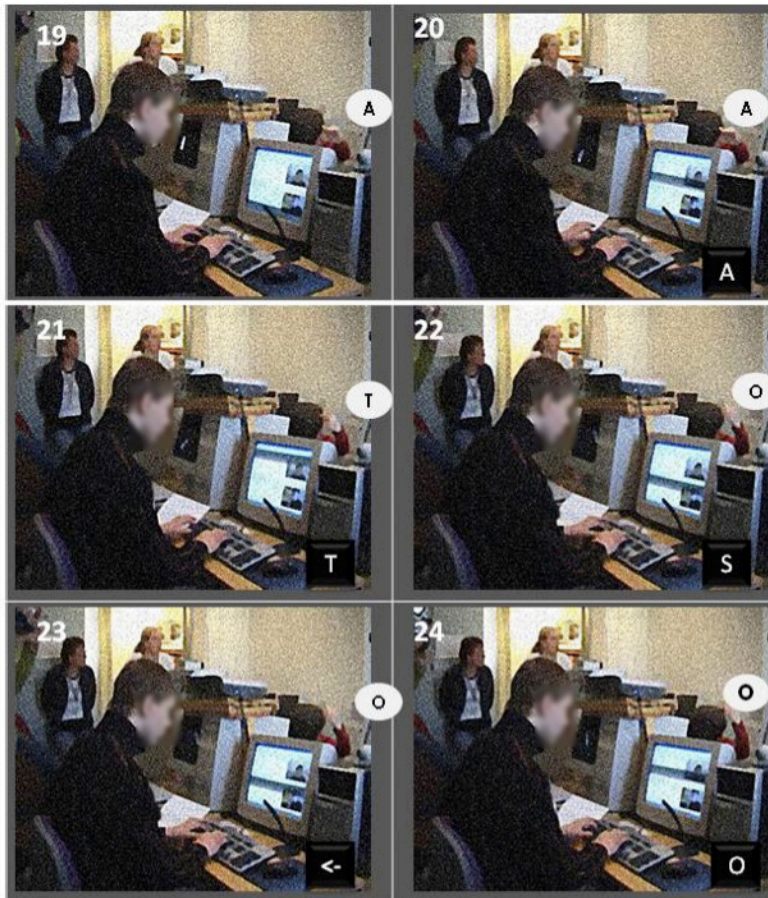
14
Mari makes sure that JP’s attention is on her.

15 – 16
After signing letter V Mari turns to the big screen to follow JP’s typing.

JP’s gaze shifts between Mari’s hand, the keyboard and the screen.

Plate 5.

As soon as Mari notices the mistake from the white screen, she emphasises the sign by adding a strong, stretchy beat movement to the sign (plate 6, images 23-24). It is the movement that changes in the structure of a sign when the signer wants to emphasise a word or a longer expression, rather than the handshape or the place of a sign, because the movement is the most salient feature of a sign (see section 4.2, page 24). After LETTER-O, Mari signs LETTER-R and urges Jukka-Pekka to send the right answer to send the answer (plate 7).

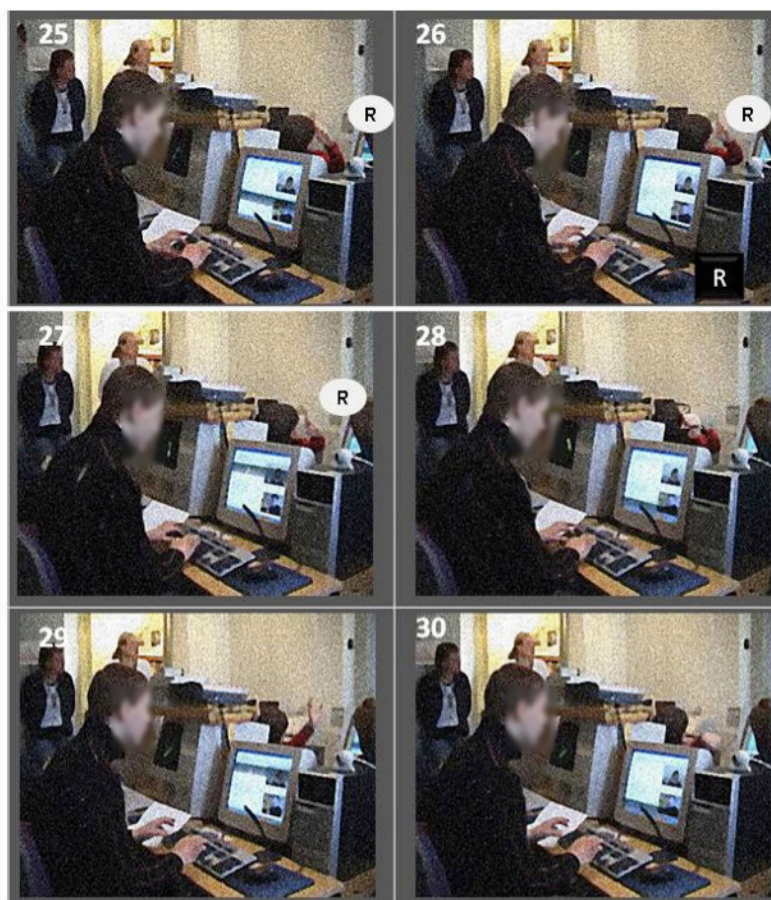


19– 24
 Mari is still looking at the big screen only.

22
 Mari signs LETTER-O, but JP types letter S.

23- 24
 Mari notices JP's typing mistake and emphasises LETTER-O by modifying the movement and the location.

Plate 6.



25– 30

Mari keeps looking at the big screen, the hand is fingerspelling to the opposite direction to JP.

28

Mari gives a 'thumb up' to JP, signalling that the word is typed correctly.

29- 30

JP does not press 'enter' yet, for what reason Mari urges him to send the answer.

Plate 7.

Through analysis of 'The Aviator' we can see how the categories for the different ways of fingerspelling (according to Patrie & Johnson 2011, as described in section 4.3.1) serve to explain how the motive and purpose of the situation affects the type of fingerspelling. Mari uses the careful fingerspelling in the beginning, assuming that JP is able to retrieve the form of a written word from it. However, because JP very likely does not know the word in advance and since he needs the correct spelling for the word for typing it, Mari changes the way of fingerspelling. Fingerspelling letter by letter, a typical way to use fingerspelled signs when given maximum attention to which Roman alphabet are in a sequence, suits the task to be accomplished.

This analysis also shows how Mari orients her body and brings her left, dominant hand into JP's field of vision. In general, therefore, it seems that modification of fingerspelling is motivated by the efficient completion of the task in question.

6.5 'Guitar'

'Guitar,' the second situation under scrutiny, occurred during the same videoconferencing situation, a little less than three minutes after 'The Aviator.' Some of the signing was not captured by the video cameras; however, what was perceived is in the overall transcript presented in appendix 4. Two girls, Suvi and Laura, have their turn in front of the web camera and computer to type the answer to Deltebre's question in the quiz. Laura is a hard-of-hearing member of the Finnish Deaf community who had several deaf friends, and who spent her school years with peers who had a strong sign language background; her signing is extremely fluent and it was difficult for me to tell initially whether she was a native user of FinSL. However, Laura very often seemed to communicate in speech with the hearing teachers and tended to speak to me also; for example, when asking for help with English language exercises. Suvi is a deaf native FinSL person from a deaf family. Before the web-conference it had become apparent that Suvi in particular was familiar with social media and online environments. At many instances, she expressed strong agency when working with others in the online environment of the course (Tapio, in progress).

By the time 'Guitar' occurs, the groups in Merikartano and Deltebre have developed a good rhythm of exchanging questions and working together to find answers. The group at Merikartano very much mutually focus on the proceedings of the quiz and on what the Spanish pupils type to them or communicate through the webcam. Suvi and Laura are sitting side by side in front of the computer, opposite the webcam. Laura is supposed to type the answer back to Deltebre. Suvi and Laura share a focus on the computer screen and the white screen, but at the same time, are not in an ideal face-to-face position for signed communication between the two (see Figure 15).



Fig. 15. Laura (at front) and Suvi at the computer

A question from the Deltebre pupils, ‘*What is the most famous musical instrument in Spain?*’ appears in Windows Live Messenger, both on the PC screen and the white screen. Laura and Suvi do not notice the question straight away because they are signing together, discussing the question they plan to ask Deltebre. At the same time, the teachers exchange gazes across the room. Sirpa quickly mumbles ‘*Kitara, banjo, vai onko?*’ (‘A guitar, a banjo, or is it?’), Tapio quickly whispers the right answer, *kitara* (‘a guitar’), in a similar manner. I am fairly certain only Jukka-Pekka is close enough to Tapio to hear this exchange, but I cannot know this for sure.

The girls notice the question after several people point it out to them with pointing gestures or by vocally calling Laura (a girl at the back of the room calls her name, line 3 in the transcription below). As a consequence, a lot of overlap again occurs in speaking and signing, in a manner similar to the overlap that occurred when the question on ‘The Aviator’ arose (lines 4-5). Everybody in the room starts to negotiate the right answer and, more precisely, to work towards having Laura type the answer with *the right spelling* to Deltebre.

At first Suvi tries to understand the question in English herself. She reads from the white screen and signs FinSL signs, translating some of the words in the question in FinSL: MIKÄ

MUSIIKKI ESPANJA ('what music Spain') (line 15), turning her gaze to Sari, who again speaks and signs at the same time, but prolongs the sign MIKÄ ('what'), waiting for the girls to look at her (line 14). As in 'The Aviator,' Sari signs and speaks at the same time when presenting the question to the class (lines 14, 16, and 17). It seems that at first she is presenting the question to the whole group, but when Suvi turns to her, she directs the question to Suvi, simultaneously lowering her voice to a whisper (line 17).

1	Sari	Hei	tuossa on	tullu jo	kysymyksiä
2	Suvi		(--)		
3	A Girl	Laura			
4	Elina	HEI	KYSYMYS	<i>pointing at the white screen</i>	
			kysy-		
5	JP			(--)	
6	Sirpa	noni tapio	tapio pittää	tietää tämä	
7	Laura				(--)
8	JP	(--) ei oo	onko (.)	mikä tämä	on
9	Tapio	eiköhä se	oo luulis eiku		
10	Suvi			(--) ON	(--)
11	A girl		en minä tiä	siitä mittää	
12	Tapio	kitara (--)			
13	Laura	<i>pointing at the white screen</i>			
14	Sari	tiiättekö	mikä		
		TIETÄÄ	MIKÄ	<i>prolonged pointing at the white screen</i>	
15	Suvi			KYSYY MIKÄ SOITIN ESPANJA	
16	Sari	espanjassa mikä		musiikki-	niinku tavara
		ESPANJA MIKÄ		MUSIIKKI	TAVARAXX
17	Sari	mikä niinku eniten käytetty			
		MIKÄ ENITEN	KÄYTTÄÄ		
18	JP		gitar		
19	Laura	(--)	<i>shrugs</i>		
20	Tapio		se liit-	(--)	<i>signing</i>

Timo starts to speak, wanting to offer a hint, but quickly changes to signing, and gives some hints to girls on the right answer (hints that is not visible to the camera, line 20). The girls now turn to Tapio and suggest different instruments to him and to each other (lines 22-29).

17	Sari	mikä niinku eniten käytetty MIKÄ ENITEN KÄYTTÄÄ		
18	JP		gitar	
19	Laura	(--)	<i>shrugs</i>	
20	Tapio		se liit-	(--) <i> signing</i>
21	Laura	<i>floats cheeks</i>		
22	Suvi		RUMMUT	<i>palm face up</i>
23	Tapio		@ ei	@ei
24	Laura			y.1. TIETÄÄ RUMMUT
25	Suvi	y.1. EI-TIEDÄ	y.1.	
26	Laura	KITARA	JOKU KITARA LETTER-T LETTER K UNOHTAA y.1.	
27	Elina	@@@		
28	Laura	<i>typing</i> K-I-T-A-R		<i>pointing at the white screen</i>
29	Suvi	>KITARA BAS-->O <		
30	Laura	OIKEIN		>KITAR< <i>points to the PC screen</i>
31	Suvi		LETTER-K:	

When Suvi translates the sign KITARA ('guitar') to English, she first suggests a bass guitar by fingerspelling B-A-S-S-O (a double S is signed with LETTER-S with a stroke to the right from its typical place) (line 29). Meanwhile, Laura has already typed *kitar*, and brings Suvi's attention to her suggestion by pointing at the white screen, signing OIKEIN ('right'), fingerspelling K-I-T-A-R and finally pointing at the PC screen (lines 28-30; images 1-3, plate 8). Suvi follows with her gaze and pauses to think, the fingers of her right hand in a handshape for LETTER-K, but as if for herself (image 3, plate 8). Laura notices Suvi's doubting and her finger is already on backspace (image 4, plate 8), ready to delete her typing.



Plate 8.

Suvi is working on the right spelling together with different participants around her, literally moving her right hand for the participants with different fingerspelled signs LETTER-K, LETTER-C and LETTER-G (images 1- 7, in plate 8 and 9).

The series of images in plate 9 below show how Suvi moves the LETTER-C to Sari's field of vision. Sari already has her hand high up (image 5, plate 9), signing LETTER-G. Suvi copies that (picture 7, plate 9). When Sari switches to LETTER-U, Suvi is already signing LETTER-I, but switches quickly to LETTER-U (images 8 and 9, plate 9). After that they fingerspell the rest of the word very quickly. Suvi now proceeds quicker than Sari for the signs LETTER-T, LETTER-A and LETTER-R (images 10-13, plate 9). This negotiation of the right sequence of letters in fingerspelling between Suvi and Sari takes 4.2 seconds in total.

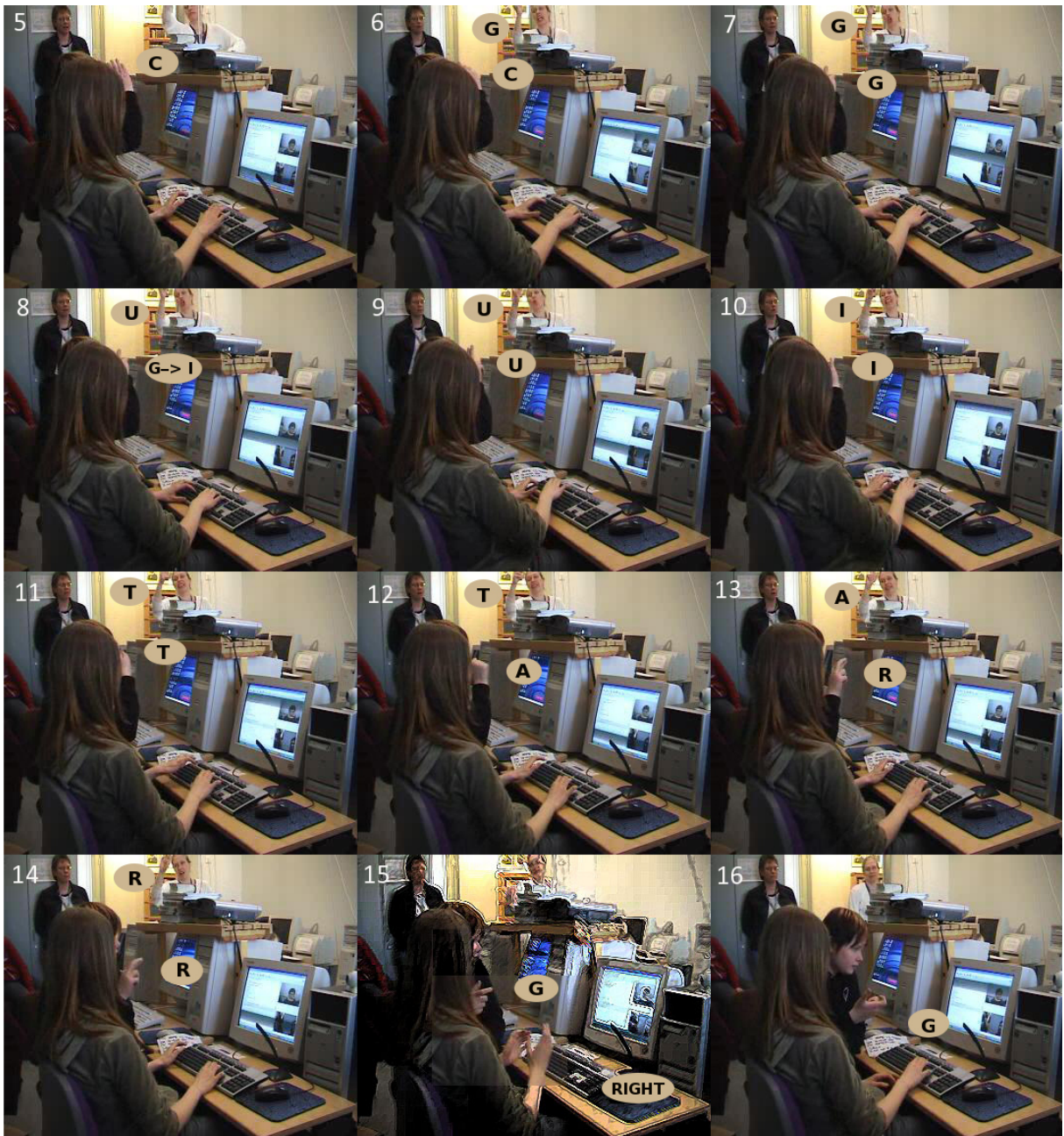


Plate 9.

Suvi's hand still in the shaper for the sign LETTER-R, she brings her hand into Laura's field of vision of, simultaneously switching to LETTER-G (images 13- 14, plate 9). By then, Laura has erased her previous typing *kitar*, and has entered *gitar* in the Messenger box. She points to PC screen and signs OIKEIN, 'right', but Suvi does not approve of Laura's spelling, which she communicates by insisting Laura start from the beginning by keeping her hand in handshape of LETTER-G (images 15 and 16, plate 9).

Laura removes four letters of her typing, i-t-a-r, and types the rest, u-i-t-a-r, according to what Suvi fingerspells to her. When fingerspelling the word guitar, Suvi gives a strong

emphasis to the sign LETTER-U by modifying the movement of the sign: she adds a short, strong movement to the right (image 17 and 18, plate 10). In a typical fingerspelling situation, this movement would actually suggest two LETTER-Us instead of one, but here it seems the movement is for emphasis and is not a form of reduplication in fingerspelling. Emphasis of LETTER-U in fingerspelling is most likely because the letter U is missing in Laura's suggestion for the answer.



Plate 10.

Unlike Mari's fingerspelling in 'The Aviator' where she did not include mouthing element to fingerspelling, Suvi mouths synchronously when fingerspelling the word to Laura. Whether she mouths when fingerspelling to Sari is not seen from the angle where the camera was placed. Table 3 shows what kind of mouthing she has in relation to her signing.

<i>Finger-spelling:</i>	<i>G</i>	<i>U</i>	<i>I</i>	<i>T</i>	<i>A</i>	<i>R</i>
<i>Mouthing:</i>	(g)e:*	u:	i:	t**	a:	-

* Since the sound /g/ is articulated with the back part of the tongue, it is not visually shown on the lips. Only the rest, e:, is seen in the shape of the open mouth.

**notice that this is not the Finnish word for the letter-T, /te:/, in this case, only the tongue touches the upper front teeth.

Table 3. Mouthing in relation to fingerspelling G-U-I-T-A-R.

Contrary to the usual mouthing that occurs when fingerspelling, it seems that Suvi's lips are forming the Finnish names of the letters G, U, I and A in the word, (ge:, u:, i:, and a:). When signing T, her mouth is still open, tongue touching her upper teeth, yet when signing R, her lips are already closed well in advance.

Suvi's fingerspelling in this sequence is a typical example of signing letter by letter, naming the Roman ortographs in a sequence, in a manner similar to Mari's fingerspelling in 'The Aviator' after she, Mari, switches from careful fingerspelling to letter-by-letter signing.

The most intriguing practice of fingerspelling captured on this clip of video recording, is Suvi's manner of changing the fingerspelling sign 'on the fly', when moving her hand from place to place, for people on her right, left, sitting and standing in the computer lab. How she fingerspells to Laura, the person sitting right next to her, is also a typical of signing when a perceiver is simultaneously engaged in another activity that requires one's eye gaze, such writing with a pen, or in this case, typing on the keyboard. Suvi places her right hand carefully into Laura's field of vision, on the right side of the keyboard, where Laura can capture the fingerspelled sign and type it on the keyboard with ease. I suggest that because the signing occurs at the edge of Laura's focus, Suvi adds a horizontal movement to the crucial signs.

6.6 Conclusions of both 'The Aviator' and 'Guitar'

It is apparent that in video-conferencing situations, several motivational factors cause the modification of fingerspelling described above. Firstly, because of competition and a motivation to win, a hectic problem-solving situation causes participants to draw from different sources as quickly and efficiently as possible, choosing from whom to obtain an answer from and what tools—what mediational means—to use to obtain that answer. In both cases, participants choose fingerspelling to mediate the English word to the person supposed to type that word on the keyboard.

Fingerspelling and typing is arranged in a chain of action in which after each fingerspelled sign the person at the keyboard presses the key of the similar alphabet. The type of

fingerspelling used in both cases is the letter-by-letter fingerspelling, in which each fingerspelled sign is signed so as to name the written letters one at a time. This is visible in the independent movement added to most of the signs and in the relatively slow production of signs.

The place, a computer lab, its layout, visual obstructions and how people have to place themselves in relation to each other, challenges the affordances of sign language: visual contact between the participants is heavily restricted. However, the participants are creative in modifying fingerspelling when adjusting their bodily positions, moving a hand above obstacles, bringing that hand to the visual field of the person to receive the message, adding extra movement to a sign and holding each sign as long as is necessary for a 'secretary' to attend to and type it. (This is similar to the way of positioning ones' bodies in relation to other participants, cultural tools and the task at hand as examined by Goodwin 2007.)

6.7 Ten Jasons in 'Ultimatum'

The third video recording under analysis is a FinSL conversation I recorded in order to obtain data with several emergences of fingerspelling of English words. The aim was to discover how fingerspelling is modified within a single conversation and how people use mouthing in relation to fingerspelling.

To obtain data of this type I invited two young adults from the deaf community, Jari and Jesse, to discuss the action film *The Bourne Ultimatum* in a casual coffee-table conversation immediately after seeing that film in a cinema. My assumption was that discussing an English language film would encourage the participants to fingerspell English words and, preferably, to fingerspell one word several times. Jari is from a deaf FinSL family while Jesse is a FinSL person who has a markedly hearing background, who was born to hearing parents and schooled via an oral method. However, Jesse has been strongly involved in the Deaf community since his late teens. Neither Jari nor Jesse knew that, by collecting data, I aimed mainly to examine fingerspellings of English words; they were simply left with a camera to converse freely for as long as they desired. The video recording of the discussion between

Jari and Jesse is forty-five minutes long, containing several instances of fingerspellings of English nouns, proper names, and acronyms (e.g. *'The End,' 'David,' 'Rambo,' 'CIA,'* and *'FBI'*). Jesse fingerspelled *'Jason,'* the name of the main character of *The Bourne Ultimatum,* ten times. I selected those sequences—in which Jesse fingerspelled *'Jason'*—in particular for analysis, naming them *'Jason 1-10'* on the basis of the order in which they occurred on the recording. In Jason 2, the signer begins with LETTER-B, a slip of a hand: he begins to fingerspell the family name *'Bourne'* instead of the character's first name, *'Jason'*—the signer himself later confirmed that slip.

Aware that *'Jason'* is a proper name and, as such, an atypical example of an English word, I have chosen to examine its use because it has no equivalent Finnish name, and is orthographically and phonetically foreign English to Finns.

Table 4 below summarises the ten instances of fingerspelling *'Jason'* in the video-recorded conversation. Each handshape recognised in the fingerspelled sequence is notated with the stokoean symbols Rissanen (1985, presented in appendix x) introduced to FinSL research. The handshape presented in Figure 24 is, however, written with Johnson and Liddell notation (1996¹⁶) because the Stokoean symbols are not sufficiently accurate for this particular handshape. The handshape appears in Jason 6 and Jason 9 and can be interpreted as a version of LETTER-N. However, the handshape differs from the usual form: the full handshape is not formed because the base joints of the index and middle fingers are extended, yet the middle and top joints of those are flexed. I have glossed LETTER-J and LETTER-N in Jason 1, 2, 4, 5 and 8 as single fingerspelled signs because they appeared with the movement or flexion the fingerspelled sign entails.

Two handshapes emerged as a result of coarticulation; namely, a coalescence of LETTER-S and LETTER-O (Figure 16, marked as S/O in table 4) and a coalescence of LETTER-A, LETTER-S and LETTER-O (Figure 17, marked as A/S/O in table 4). The latter handshape appeared in seven instances.

¹⁶ Johnson and Liddell have recently developed the notation system further (2011, 2012), however, I find their current notation system too elaborate for the purpose of my study.

	Handshapes and the fingerspelled signs	mouthings	duration (seconds)
Jason 1	LETTER-J, LETTER-A, S/O (fig. 16), LETTER-N	/jason/	1:07
Jason 2	(LETTER-B), LETTER-J, LETTER-N	/jason/	0:67
Jason 3	I, A/S/O (fig. 17)	/jason/	0:32
Jason 4	I, A/S/O (fig. 17) , LETTER-N	/jason/	0:46
Jason 5	I, A/S/O (fig. 17), LETTER-N	/jason/	0:61
Jason 6	I, A/S/O, b-12" (fig. 18)	/jason/	0:26
Jason 7	I, 5"	/jason/	0:31
Jason 8	I, A/S/O (fig. 17), LETTER-N	/jason/	0:79
Jason 9	I, A/S/O (fig. 17), b-12" (fig. 18)	(not captured)	0:24
Jason 10	I, A/S/O (fig. 17), flex from the wrist (η)	/jason/	0:37

Table 4. Ten times Jason.



Fig 16. A handshape of a coarticulated LETTER-S and LETTER-O; in other words, similar to LETTER-O, but the tip of the thumb rests *on* the fingernails

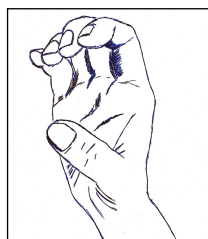


Fig 17. A handshape of a coarticulated LETTER-A, LETTER-S and LETTER-O, or b-1234" in the Johnson & Liddell notation (1996)



Fig 18. LETTER-N in the data, or b-12” in Johnson & Liddell notation (1996)

The first fingerspelling of Jason is remarkably different from the rest: most of the signs that refer to the letter of the word can be recognised: LETTER- J has the orientation and the movement of the sign and the LETTER-A is distinctly produced. A strong coarticulation occurs when signing LETTER-S and LETTER-O, yet elements of both remain; for example, the joints are flexed. LETTER-N is clearly produced with two extended fingers, the pointing finger and the middle finger. In the remainder—Jason 2 to 10—only an extended little finger (handshape /l/) remains of the LETTER-J, the orientation remaining the same throughout most of the fingerspelling and the coarticulation even stronger. Also, the duration of Jason 1 differs from the duration of the rest at 1,07 seconds compared to a variance of from 0,79 to as short as 23 hundredths of a second.

While the fingerspelled word undergoes many changes, the mouthing does not seem to change at all. The mouthing is clearly /jason/ in nine of the cases; the mouthing of Jason 9 is not captured on the video. However, for Jason 1, the ending /n/ differs from the rest of the signs in the use of strongly rounded and protruded lips.

These fingerspellings of Jason seem to follow what Patrie & Johnson (2011) and Johnson (1994) have said about different types of fingerspelling; namely, that when a fingerspelled word is introduced for the first time in a conversation, fingerspelling focuses on individual signs and can be described as careful fingerspelling. For the following fingerspellings of Jason the type of rapid fingerspelling is used. Signs are missing and strong coarticulation occurs. In other words, the signer gives just about enough information to the recipient to recall the active template of the word given in the careful fingerspelling. Actually, the fingerspelling of Jason can be identified as a nonce sign used in this particular conversation.

It is interesting to notice that, in this analysed piece of conversation, careful fingerspelling is used even though the signer can expect the receiver to know the name in question. It would be interesting to learn how the signer would have fingerspelled the name if the other person hadn't been familiar with the film character at all.

As Table 4 shows, all the cases of Jason after the first vary considerably: the duration and type of coarticulation vary. However, this analysis cannot state the reasons for such changes or see any pattern in how the fingerspelling is modified time after another, because I have not attended much to the context of the fingerspelling of each case. When a fingerspelling of the same word is repeated, the processes of modification of the fingerspelled signs require the following: *one*, more data and *two*, attention to the syntactic factors of the fingerspelling and the situatedness of the interaction.

On the basis of my analysis of 'Ultimatum,' however, I offer these preliminary findings, which offer a good starting point for future research. When fingerspelling an English word several times in a FinSL conversation, the first instance seems to occur in the manner Patrie & Johnson (2011) and Johnson (1994a) suggest; that is, careful fingerspelling occurs. Subsequently, fingerspelling functions as a nonce, yet the consequent signed instances vary and the length and handshape of each fingerspelled sign are unpredictable and do not seem to follow any logic of 'evolving.' Mouthing in relation to fingerspelling seems to keep its form throughout repetitions, however. Mouthing follows a sound-letter correspondence similar to the Finnish writing system, thereby giving strong support to the template of the original, written word.

7 DISCUSSION

As my research questions state, this study aims to explore, firstly, the multimodality of interaction when FinSL signers fingerspell English words, and secondly, how fingerspelling is modified in such situations. I aim to highlight the social practices inside the FinSL community when dealing with English, a foreign language, and to develop foreign language education for diverse learners. For those reasons, I have employed an ethnographic framework, selecting the methodological tools for analysis in ethnographic research to suit the data and the purpose of the study. Analytical tools derived from multimodal interaction analysis, social semiotics, and sign language linguistics were employed to answer the research questions.

Analysis of two video-recorded situations, 'The Aviator' and 'Guitar,' reveals a general multimodality of interaction and uncovers a relationship between fingerspelling and other modes available to the actors in those situations. Analysis of 'The Aviator' shows complex interaction in the group of heterogeneous signers; modes overlapping via different channels are on offer to the participants. The situation is multimodally dense: in 'The Aviator,' participants use many modes of several languages; they speak, write, type, sign, and fingerspell. In addition to linguistic elements, participants in 'The Aviator' use gestures and facial expressions to construct meaning. The group is evidently accustomed to having different modes overlap and to selecting from 'a tray of multiple modes;' in other words, from the affordances available.

Jukka-Pekka, the actor in focus, selects from information that arrives via different media and different modes. JP makes choices, focuses, expands that focus, and shuts out certain information in order that his actions are the most efficient for the task; he uses practices identified as used by both deaf and hard-of-hearing members of the Deaf community.

Analysis of 'Guitar' also shows participants choosing between different mediational means to successfully complete the task at hand. In both cases the participants arrange fingerspelling and typing in the action chain 'fingerspelling – typing,' after which all the participants check if the typing was carried out according to the fingerspelling by verifying

the correct spelling from the computer screen or the whiteboard. The technology in the situation *rearranges* the interaction. When conversing in sign, the participants usually maintain eye contact or gaze, yet because of the obstacles in the environment and the physical environment of a computer lab, the participants abandon the convention of gaze, relying on the feedback provided by the technology.

Analysis of the mouthing in 'The Aviator' and 'Guitar' shows that fingerspelling in 'The Aviator' did not emerge with its co-mode, mouthing. In 'Guitar,' mouthing was inconsistent, yet at times followed the Finnish names of fingerspelled letters in a manner suitable to letter-by-letter fingerspelling. I contend that this inconsistency of mouthing is not random; on the contrary, it is a sign that the signers were aware of the contextual configurations of the situation. Goodwin (2000: 1700) describes similar situations as follows (the highlighting is mine): *"(-- not all of these resources are relevant and in play at any particular moment. However, the ability to rapidly call upon alternative structures from a larger, ready at hand tool kit of diverse semiotic resources, is crucial to the ability of human beings to (-- show that they are aware of each other and of the situation."*

I also consider the modification of fingerspelling a sign of an active participant managing the affordances of a situation for his or her benefit. In 'The Aviator,' Mari orients her body to the mutual task at hand, and by doing so, places her signing where it can be received by the recipient. In other words, one articulator, the dominant hand, is moved from its usual place to the receiver's field of vision. The same action occurs in 'Guitar,' yet on a much wider scale: Suvi moves her hand *while* fingerspelling for different participants to see. She also adds extra movement to the fingerspelled sign so as to make the sign more salient to the recipient and because the visual field is restricted by physical objects and by the participants' location. Moreover, Elisabeth Keating (2005) and Keating and Mirus (2003) have analysed similar cases in which a web-camera has led to an adaptation in the production of sign language. Signers have adapted some aspects of sign language to the constraints and opportunities of the eye of a web camera rather than the eye of the interlocutor. Changes occur in both sign space and in the location in which signs are produced in relation to the signer's body.

The practice of fingerspelling also changes in relation to the task in question. In 'The Aviator,' signers move from rather rapid, careful fingerspelling to signing each sign with a

separate movement, aiming to give the recipient the precise order of the letters in a sequence. In 'Guitar,' the participants negotiate on the correct spelling of the word, a negotiation that obviously leads to letter-by-letter fingerspelling.

Analysis of these instances, 'The Aviator' and 'Guitar,' led me to collect data from another type of situation involving the fingerspelling of an English word: a relaxed coffee table conversation between two native FinSL signers. I wanted to see how participants would integrate an English word into the stream of a signed conversation; how other modes, especially mouthing, would be included; and what type of coarticulation might occur in fingerspelling. My analysis of ten fingerspellings of 'Jason,' a proper name, concurs with Patrie and Johnson's (2011) categorisation of fingerspelling. When the name 'Jason' was introduced to the conversation for the first time, a careful fingerspelling was used. The nine instances after that point clearly exemplify rapid fingerspelling with strong co-articulation and omission of fingerspelled signs. Most important however to an analysis of 'Ultimatum' is, I contend, the notion of *mouthing*. The signers' mouthing followed a sound-letter correspondence similar to the Finnish writing system, strongly supporting the written form of the name 'Jason.' Also, the mouthing retained its form throughout the ten repetitions, while the fingerspelled sequence changed drastically in structure.

In Mediated Discourse Analysis, a main question regarding a person's historical body concerns the innovativeness and habituality of the practice under analysis: to what degree is an action a habitual practice? On the basis of my observations of sign language interactions and my analysis of the situations recorded and included in the data of this study, I contend that the practice of modifying fingerspelling in the manners previously described is indeed a habitual practice, particularly in relation to typing and writing tasks.

By examining the social action of fingerspelling English words in a FinSL context, the further aim was to arrive at new insights into language teaching, particularly into teaching English to diverse learners. In my opinion, the best way to examine how to teach English to Finnish Sign Language people is to scrutinise signing communities for the practices that have been created in the community. To examine such practices from a multimodal viewpoint, aiming at a detailed analysis of interaction, is in alliance with both a sociocultural and ecological view of language learning, an approach in which one regards learning as a situated activity and as "an inseparable part of ongoing activities and therefore situated in social

practice and social interaction,” which concerns, in particular, how a social-interactional approach regards language learning (Firth & Wagner 2007). In such an approach, the interest is, indeed, to see how a learner engages with an environment full of potential limitations and opportunities—in other words, different modes with different potential effects for language learning—and how learners choose and select between modes according to the context; for example, according to the place, other participants, and the goal of the activity (see, e.g. Firth & Wagner 2007, Jewitt 2008b, Jones 2004, Kramsch 2002, van Lier 2000). In the situation under scrutiny, the context of a quiz, carried out via videoconference in written English, between participants from heterogeneous backgrounds or historical bodies, and situated in a place with technological tools for and physical obstacles to visual communication, lead to finely tuned co-participation and synchronised fingerspelling-typing activity. One can view that activity itself as a hybrid of several modes—including spoken and signed languages, typing, gesturing, signing, and mouthing—resulting from the vast range of cultural and linguistic resources available to the participants in that learning context (Gutiérrez *et al.* 1999). I contend that such activity should be recognised, enabled, and encouraged in English language teaching for diverse learners.

8 CONCLUSION

The sign language researcher is often faced with unexplored phenomena, and this researcher felt that the topic of this study was challenging in many ways. My goal was to embrace the complexity of the phenomena of fingerspelling English words in a FinSL context rather than attempting to simplify and restrict the focus of analysis. In practice, I made that choice following a choice to focus on language and social action rather than solely on language. The multilinguicity of signers and of their linguistic context also suggested a wide range of issues for consideration. What, for instance, is the relationship between Finnish, FinSL, other national sign languages, International Signing, and English? This study explored the contact between Finnish, FinSL, and English; however, a need exists to examine the wider multilinguicity of sign language interactions.

The most challenging ‘crossing of borders’ is the stretch from a monomodal to a multimodal view that attends to the entire semiosis of a situation and particularly to space, place, gestures, and expressions in relation to FinSL. However, retaining the complexity of a multimodal view and not falling into a categorisation of modes is very difficult. As I am not trying to create categories for modes—let alone define boundaries between modes—how will I avoid modal categorisation or demarcation, if I must nonetheless describe the modes used in a particular situation? My analysis of the fingerspelling of English words by the participants in this study followed Norris’ method of analysing multimodal interaction. I began by discerning the communicative modes used in a situation, as instructed by Norris; that process led directly to categorisation and to my making a decision about the difference between ‘linguistic’ and ‘non-linguistic’ elements. Mid-analysis, Norris’ categories began to seem limited and—I concluded—required substantial changes to cope with the phenomena presented in the data of this study.

An example of this need for substantial changes in Norris’ categories is that researchers who deal with spoken languages only easily explain pointing and the use of space; however, in a signed language, pointing and the use of space are also part of the grammatical

elements of that language, and therefore require considerably more attention than when examining a spoken language. Moreover, many sign language linguists do not distinguish between gestures and discrete signs or between non-linguistic and linguistic elements, stating that those gestures, signs, and elements are—after all—‘one system’¹⁷. To agree with that view, focusing on social action and language rather than ‘only on language,’ while at the same time conducting multimodal interaction analysis, presents a problem that deserves extensive future methodological discussion.

I suggest in summation the following main points for further research. I had hoped to explore many of the issues listed in more detail and it seems obvious—particularly given the scope of my inquiry—that much pertaining to the phenomena of fingerspelling English words in a FinSL context, among other issues, remains unexamined.

However, I contend that the quality of the data in this study offers valid directions—in other words, that the complexity described in detail here has produced grounded hypotheses for future study.

1. *From examining linguistic elements only to a full multimodal analysis*: a so-called ‘multimodal turn’ has already occurred in conversation analysis and other fields, as well as in sign language research, in which sign language linguists are acknowledging and attending to gesture. However, an analysis of the relationship between gesture and sign and gesture in sign only is insufficient, particularly for learning and language education; the scope should be wider, including other means of constructing meaning.

2. *Moving from one language (FinSL in this case) to many languages*: a multilingual perspective is crucial when researching FinSL; the FinSL community is highly multilingual, not only bilingual in Finnish and FinSL but also in Swedish, English, and in other national sign languages and international signing, which are beginning increasingly to affect communications in the Finnish Deaf community.

3. The two previous issues, multimodality and multilingualism, led to the third point I suggest for further research: *from hands only to mouth and body*. Most research takes non-manual articulators into account already; however, very little research into mouthing seriously discusses the situation of language contact in the FinSL community. For example,

¹⁷ McNeill (1992:2): “Gestures are an integral part of language as much as words, phrases, and sentences— gesture and language are one system.”

whether in some situations mouthing might be treated as a communicative mode separate to FinSL has not been explored.

5. Previous research into signing communities, particularly in the United States, has focused deliberately on the language and practices of deaf signers, and, by choice, on second generation deaf. Another option would be to *also take into account the heterogeneous nature of the FinSL community* and to acquire data for study from heterogeneous groups and people with various backgrounds.

6. I intend in my own future research to emphasise more particularly *space and place* and the dynamic relationship between place, material objects, actors, and discourses. Some research already exists on how signers transform physical place and material objects with regard to a coming interaction and to how signers arrange their bodies and postures in relation to place and discourse; however, I would like to see more investigation on how signed discourses are modified in relation to the constraints and affordances of a particular material place.

I intend to retain these principles and starting points as the basis for my future research, and, in conclusion, stress the need for more research into fingerspelling itself. As argued throughout this study, several aspects of fingerspelling currently require further examination, aspects such as—for example—types of fingerspelling in relation to the purpose of fingerspelling; mouthing when fingerspelling words of different languages; the phonetic structure of fingerspelling, including the modifications of the inner structure of signs; and the semiotic relationships between written, spoken, mouthed, typed, signed, and fingerspelled words. From a language learning perspective, crucial questions for the future might include ‘What visual and embodied practices with English language do the Deaf communities have?’ and ‘Is fingerspelling a significant indigenous practice in language learning among FinSL signers and if so, what is the nature of the practice and how does it advance language learning?’

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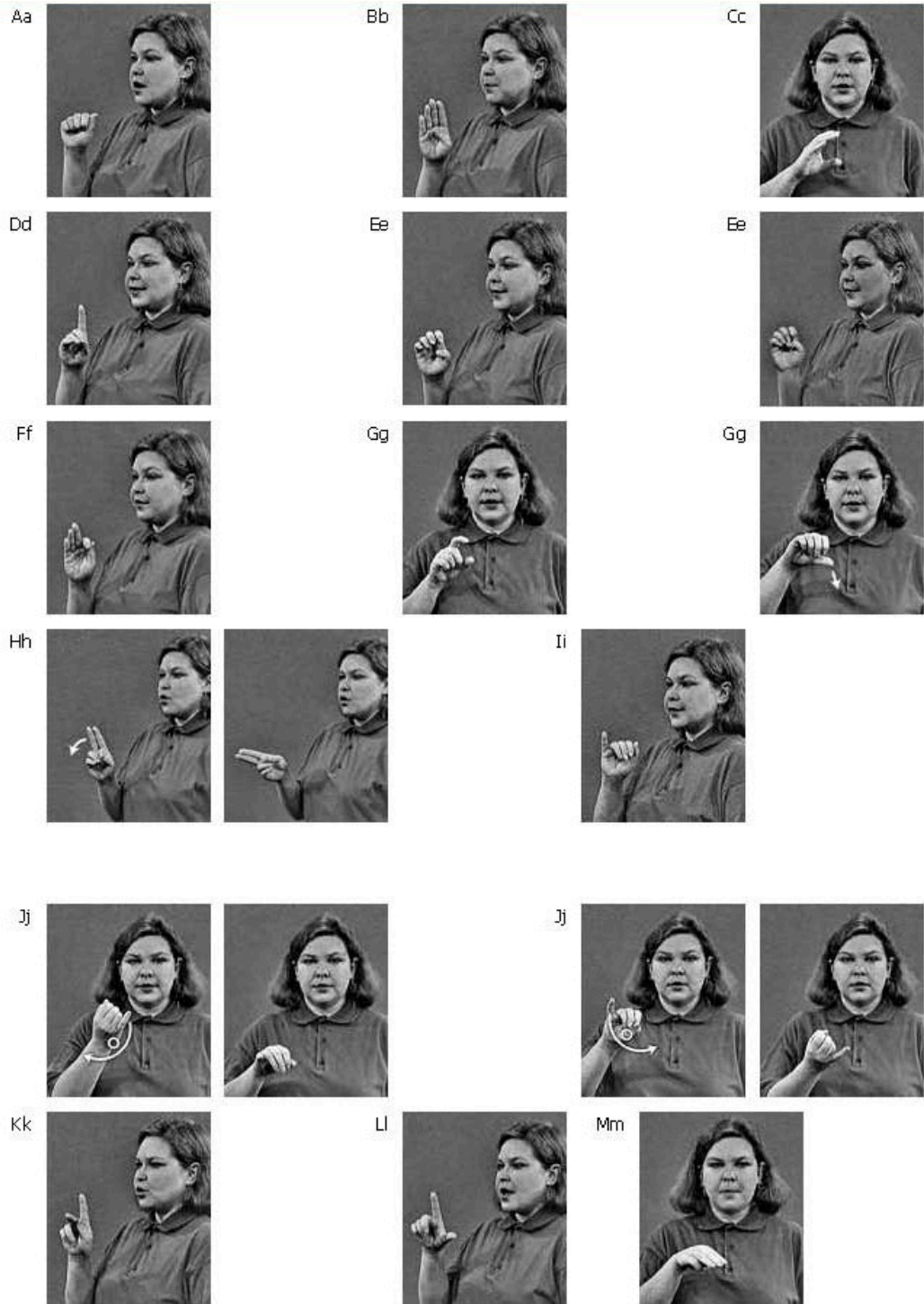
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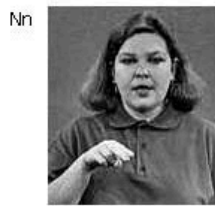
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Appendix 1. The manual alphabet used in FinSL (the images are from *Suvi*)





Key to transcription conventions

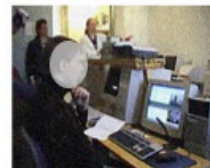
(0.5)	Pauses in tenths of a second
(.)	Pause of less than 0.2 seconds
=	Latching between utterances
[Beginning of overlap
]	End of overlap
wha-	Dash: cut-off word
sh:	Prolonged sound
(--)	Unclear fragment, either spoken or signed
guitar	Emphatic stress with bold type
↑	The word or a syllable following the arrow is uttered with a higher pitch than the surrounding talk
?	Rising intonation
>now<	Word said/ sign signed at a pace faster than the surrounding talk/signing
<now>	Word said/ sign signed at a pace slower than the surrounding talk/signing
@@	laughter or smiling voice
<i>thumb-up</i>	embodied action in italics
KUKA/WHO	Finnish/English gloss for a FinSL sign
y.1.	Pointing directed to the signer him-/herself (indicates the first person)
KÄVELLÄx	Repetition of a sign (x)
O-K	Fingerspelling with small capitals
/	Short pause in signing
//	Long pause in signing

Appendix 3. Transcription of 'The Aviator'

1 **Elina:** what's the latest film made by leo[nardo di ˈca:]prio
 2 **Tapio:** [aa:]



3 **Sirpa:** a [haa (-)
 4 **Sari:** [hei | kuka tietää |
 5 hey who know-3
 6 [KUKA TIETÄÄ POHTII.] *pointing to the blackboard* →
 7 **Elina:** do you [know]
 8 *leaning over to JP*
 9 **Tapio:** [mari]ainakin (0.6) tietää
 10 mari at-least know

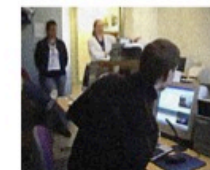


11 **Elina:** mari (0.4.) who knows
 12 **Tapio:** ymhn (.) no sä >jp säähän kiri- kirijotat vastauks
 13 well you jp you-CLI writ- you write-2 an

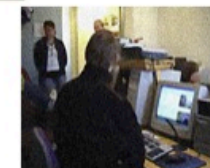


14 **Tapio:** sää kirijotat [vastauksen]
 15 you write answer-GEN
 16 **JP:** [no joo jos (.)]
 17 PRT yes if

18 **JP:** [jos mä vaan saan selevää] *cranes forward towards mari*
 19 if I just make-I clear-PART
 20 **Tapio:** [nii nii] *to mari*
 21 PRT PRT
 22 **Mari:** (TIETÄÄ) TARKOITTAAN (NÄYTELLIJÄ) thumb pointing JOO
 23 (know) mean (actor) yes
 24 **girl 1:** se o (.) leo
 25 it is (.) leo
 26 **girl 2:**



27 **girl 1:**
 28 **girl 2:** (-) lentäjä
 29 (-) flyer
 30 **Tapio:** (-) elikkä englanniksi käännättä [sen]
 31 (-) so english-TRA translate-PL-IMP it-GEN
 32 **JP:** jos mä ossaan
 33 if I can-I



34 **Mari:** [T-H-E VÄLI A - V -] I *looking at the blackboard*
35 space

36 **JP:** *looks at mari, fingers on the keyboard, twirls his hands*

37 **Sari:** [englanniksi <fla:i:->]

38 English-TRA <fla:i:->

39 **Tapio:** ei. the aviator

40 NEG the aviator

41 **Sirpa:** täälä täälä mari sormittaa sitä

42 here here mari fingerspell-3 it-PAR



43 **Tapio:** [>nii mutt se on vira-]the aviator on se elokuvan nimi (.) [se suo]meksi on
44 yes but it is offi- the aviator is it movie-GEN name it Finnish-TRA is

45 **Mari:** LETTER-T LETTER-H JOO

46 *looks at jp, looks at the blackboard*

47 **JP:** *types* THE

48 **Sirpa:** ai jaa (.) aha

[aha]

49 **Elina:** [täällä tullee]

50 here come



51 **Tapio:** [lentäjä mutta se ei ole flyer mutt the aviator se on vaan
52 flyer but it not is flyer but the aviator it is just

53 **Mari:** [A - V - I]

54 **Sari:** joo

55 **JP:** [*types A V I*]



56 **Tapio:** [käännetty] nimenä< mutta mari (.) mari tietää sen]

57 translated name but mari mari know it-GEN

58 **Sirpa:** [just joo] okei hyvä

59 right yep okay good

60 **Elina:** joo]

61 yep

62 **Mari:** [LETTER-A LETTER-T LETTER-O] LETTER-O LETTER-R >KUNNOSSA HYVÄ<
63 allright good

64 **JP:** [*types A T R*] *backspace O R*

65 ei[ku o ei tuosta] saa selevää (.) kuuroj- aa

66 NEG but o NEG that-ELA get clear-PART deaf-PL-PART

67 **Sari:** [öö oo pitä s olla siinä]

68 er o should be there



Appendix 3. Transcription of 'The Aviator'

69 **Mari:** ENTER *mouthing: joo*

70 **JP:** *sitte mennee*

71 *then goes*

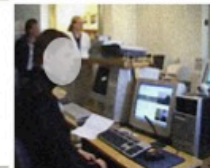
72 **Elina:** *jep*

73 **JP:** (6,5)miksei ne kysy sellasta että kuka on maalannu taulun mona lisa

74 *why-NEG they ask that who has painted picture-GEN mona lisa*

75 **Elina:** @@ [jee]

76 **Sari:** no[ni]



77 **Sari:** tuliko merikartanolle piste (TSK)

78 *come-ENCLPART merikartano-ALL point*

79 *draws a vertical line in the air*

80 **Tapio:** finland (.) one point

81 **JP:** *typing*

82 **Mari:** *looks at the blackboard*

84 **JP:** mitäs tuo well? thanks?

85 *what that*

86 **Mari:** *looks at jp*

87 **Elina:** Yeah

Appendix 4. Transcription of 'Guitar'

GUITAR TRANSCRIPT, "aviatorall.eaf", 00:27:24:34 - 00:28:55:38

1 Sari Hei tuossa on tullu jo kysymyksiä

2 Suvi (---)
 3 A girl Laura

4 Elina HEI KYSYMYS OS.valkokangas
 kysy
 5 JP (--)

6 Tuula noni Timo timo pittää tietää tämä
 7 Laura (---)
 8 JP (-) ei oo onko (.) mikä tämä on

9 Tapio eiköhä se oo luulis eiku
 10 Suvi (---) ON (---)
 11 A girl en minä tiiä siitä mittää

12 Tapio kitara (-)
 13 Laura *pointing to the blackboard*

14 Sari tiiättekö mikä
 TIETÄÄ MIKÄ (ind. finger stays in theplace)
 15 Suvi KYSYY MIKÄ SOITIN ESPANJA

16 Sari espanjassa mikä musiikki- niinku tavara
 ESPANJA MIKÄ MUSIIKKI TAVARAx

17 Sari mikä niinku eniten käytetty
 MIKÄ ENITEN KÄYTTÄÄ
 18 JP gitar
 19 Laura (---) shrugs
 20 Tapio se liit-
 (---) *signing*

21 Laura *floated cheeks*
 22 Suvi RUMMUT
palm open upwards
 23 Tapio @ei @ei

24 Laura y.1. TIETÄÄ RUMMUT
 25 Suvi y.1. EI-TIEDÄ y.1.

26 Laura KITARA JOKU KITARA LETTER-T K UNOHTAA y.1.
 27 Elina @@@

28 Laura KITAR (typing) points to big screen
 29 Suvi >KITARA B A S->O <

30 Laura OIKEIN >K-I-T-A-R<
 points to PC screen

31 Suvi K-----

32 Elina
33 JP
34 Laura *finger on backspace hits backspace*
35 Suvi EI C G
36 Sari g:llä alkaa
LETTER-G
37 Sirpa gee

38 Elina **gui:tar** **guitar**
39 JP gitar
40 Laura G I TA R *hands visit the keyboard*
41 Suvi I U I (-) T A R
42 Sari **guitar**
G U I T A R
43 Sirpa gitar

44
45
46 JP aha °juu (-)° guita °(-)°
47 Laura OIKEIN *points the screen* LETTER-U LETTER-T
four backspaces

48 Suvi G U I T
ge: u: i:

49 Laura A R
enter
50 Suvi LETTER-A
a: R
nod

51 JP nonii
52 Elina (2.0) aaaaaahaha
53 Laura *claps twice*
54 Suvi *thumb-up*