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Fingerspelling English words in Finnish Sign Language context
- a Multimodal View on Interaction

Elina Tapio
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1 INTRODUCTION

This study examines the ‘fingerspelling’ of English words by Finnish 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 PhD research project on everyday English language practices among the FinSL community; I collected the data examined in this thesis during the PhD study. 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.

This study aims above all 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 (Kramsch 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 (id., 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 the recording begins, so when “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 to achieve their goal.

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. This study therefore examines groups in action and entire situations of interaction, acknowledging the complexity of that interaction. 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 discourse 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 Why examine fingerspelling and how might fingerspelling be examined?

Two motives lie behind my choice to examine the practice of fingerspelling as it occurs among the members of the community of practice, in natural interaction, and in the situations that have been controlled by the participants. Research in the context of formal education has pointed researchers in the direction of examining everyday action with language outside formal settings. For example, research into computer-supported language learning indicates that learning involves networks and communities far more complicated than formal education traditionally assumes. People seem to use diverse media creatively and efficiently to accomplish their goals (see for instance Kuure 2011; Kuure, Saarenkunnas and Taalas 2002; Saarenkunnas 2004; Saarenkunnas and Kuure 2004).

My previous ‘pro gradu’ thesis, carried out as part of my Master studies in English Philology, also displayed the same direction of research; in other words, it 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 of and interviews with 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.

The fact that the first set of data was 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 data 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 when pupils want to diverge from formal school practices and place themselves socially towards their peers instead of the teacher (e.g. Pitkänen-Huhta 2008).

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 the progress of research into everyday life practices in the Deaf community, and have achieved a more detailed perception of learning and communication among signers in order to aid the development of the formal education of signers. A similar direction can be seen in the Finnish OSATA project (Rainò 2010a), which has explored mathematical discourse in FinSL. One of that project’s conclusions is that counting techniques among the

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1 For more about the triangulation of the data in this study, see subsection 3.3.
Deaf community have not been recognised or appreciated in formal education, leading to poor performance in maths among deaf pupils at schools (Rainò 2010b; Rainò & Seilola 2008).

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 (Brueggemann 2004: 8) asserts that Deaf people should play a primary role in education and literacy learning for Deaf children, because they (deaf people) have a rich cultural history and strong habits full of “innovations to problems of learning and development, information about language structures, discourse patterns, teaching strategies, values about English (--).”

Wilcox (2004: 164) suggests ethnography as a framework for researching Deaf practices, and aims to makes 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 manual alphabets in a very creative way, developing her own strategy to facilitate acquisition of her second language, written English (Wilcox 2004: 172-173). Wilcox concludes that these visuo-gestural strategies are the inventions of the participant, not an outsider’s intervention (id., 176).

Several other researchers have recognised fingerspelling as a practice bridging signed language in bilingual settings with the language spoken by the national majority. The principle findings of this research show that bilingual families use fingerspelling when English print is introduced to Deaf children (Padden 1996, Erting et al. 2000). 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 (2002; 2004) 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 1994) and as a possible bridge to help decode English print (Hapstonstall-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.

2.2 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 orientated-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 frameworks 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??
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 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 be accounted for, it is important to have an approach that does not separate language from other Deaf resources.

3.1.1 Social action - mediated action

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.)

Figure 2 shows the three main factors of social action: 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).

The unit of analysis is the mediated action, the real time moment when mediational means, social actors and the sociocultural environment intersect (Jones & Norris 2005: 5). Mediational means can also be called cultural tools, semiotic resources or resources. MDA sees all action as mediated, carried out via material and symbolic meditational means. (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.

MDA has drawn upon and integrated a number of traditions in linguistics. It combines theories such as interactional sociolinguists, new literacy studies and critical discourse analysis (Jones & Norris 2005: 7-8).

![Diagram](image)

**Fig. 1.** The three main factors of social action. (Scollon & Scollon 2004: 19.)
This 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 Deaf practices 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 (for example Jantunen 2010, Liddell 2003, Takkinen 2008).

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, I have to examine closely the social action under analysis: to understand what fingerspelling actually is. For this I need to explore sign language linguistics and social semiotics. Since I will analyse interactional situations where fingerspelling takes place, and consider those situations more broadly than text and discourse studies, I will need the concept of multimodality (Kress 2003; Kress & Van Leeuwen 2001). Work in the field of discourse analysis (conversation analysis and interaction analysis) that takes the multimodality of interaction into consideration, 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

This study is strengthened through triangulation of multiple data. In his ethnographic research frame, nexus analysis, Scollons 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.)

An ethnographic research method also affects the way data is collected. The researcher has the right to generate data as well as collect data. 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 multimodal interaction

This section introduces the main methodological assumption when analysing interaction from the multimodal perspective. The main weight is on Sigrid Norris’ methodological framework (2004), as well as on other research on interaction with multimodal viewpoint which she also draws from.

When 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 an equal role to the mode of language in interaction. The foundation of
multimodal discourse analysis lies in discourse analysis, interactional sociolinguistics and MDA – it crosses the boundaries between linguistics, nonverbal behaviour, and the material world. (Norris 2004.)

Interaction analysis (e.g. Jordan & Henderson 1994) also takes multimodal nature of human interaction in attention. For example, it examines how people communicate the beginnings and endings of actions not only with language, but also with gestures. In the field of conversation analysis, researchers have lately paid attention to embodied interaction, especially to gaze, gesture and posture (for example Goodwin 2000a, b; 2007).

Also in the case of sign language interaction people draw on multiplicity of communicative modes. Linguistic research on signed languages has started lately to pay attention to the interplay between signs and gesture (e.g. Jantunen 2010, Liddell 2003, Takkinen 2008), however, there is very little research on signed interaction which takes also other means of meaning making than linguistic elements into account.

One could state that the research on human interaction has had a ‘multimodal turn’ in recent years. This has been caused by two major changes in technologies: the ways we can collect, transcribe, and analyse data and the way interactions and discourses themselves are presented nowadays (Scollon & Levine 2004).

Inspired by the works 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 a case of visual language and community, it is essential to analyse the way people arrange their bodies in the place when taking into account the modes and the media used in the given interaction.

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

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2 In the same way the audio recording gave the researcher a possibility to record talk-in-interaction, the video recording is now enabling researchers to capture the visual modes of communication.

3 Recently there has been a growing interest in discourse studies on space and/or 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 2006 (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).

4 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 emphasis their interactional communicative function.
communicative modes (id., 15): 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:** (talk in interaction) | 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 for example Kendon 2004 and 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 mode 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 listed by Norris 2004.

There are two main aspects 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 asks to pay attention whether the mode is sequentially or synthetically structured, and which are the consequences of each one.
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. It also depends on the materiality if the mode is enduring or if it is fleeting.

In the case of heterogeneous group of deaf, hard-of-hearing, and hearing people (people who are multilingual, multimediational and multimodal) the division between the communicative mode and its 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 that are results of signing hands can also bear meaning to a hearing participant in 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.

3.5 The interplay between communicative modes: shifting between modes

Modes are interconnected upon one another in many different ways. The actual hierarchical structure of modes is not given, but has to be determined through analysis. When analysing the interplay of different modes, the analyst very soon realises that modes have no true boundaries. It is important to remember that modes entail meaning potential that are being realised or not. The actual meaning has to be determined by its environment, other modes.

Multimodal interactional analysis takes into consideration what has been discovered about each communicative mode so far, however, many times the modes have been studied in relation to language in which cases the language is given the superordinate role in interaction. In multimodal discourse analysis hierarchical structures cannot be assumed.

Goodwin shares the principal idea on interaction as a multimodal activity when stating that human action is built through “the simultaneous deployment of a range of quite different kinds of semiotic resources” (Goodwin 2000a: 1489). On the interplay of semiotic
resources (i.e. communicative modes) he says: “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” (id., 1490). According to him, not all of these resources are relevant and in play at any particular moment.

Norris (2004: 78 - 94) also pays lots of attention to the way people in interaction employ different modes with variety of intensity or complexity. In other words, the situation, the social actors, and other social and environmental factors determine how intensive or important one specific mode is in interaction. Both intensity and complexity can lead to modal density, which again is a sign of a high level of interactional attention/awareness of participants. Norris’ 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 context of ecological view on language learning (for example Kramsch 2002). For this reason, I suggest that by looking at complex interactional situations with high modal density, and especially 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.5

When analysing 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 a channel to another. When analysing how and when people shift focus between visual and auditory channel, how they move from one participation framework to another and how they communicate to each other on ‘what channel and what participation framework’ the analyst should pay attention to the modes of gaze, head movement, proxemics and posture. As Norris points out (2004: 51), these modes very often overlap and are difficult to distinguish from each other. However, the point is to notice, for example, that

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5 This standpoint was originally inspired by Gee’s (2003, 2008) research on learning, literacy and games where he states that these rather complex and dense gaming environments are offering good learning for players.
a participant shifts focus to another participant and that is communicated probably with all four communicative modes: One stands or stretches up to avoid the visual obstacle, turns the body toward the receiver, looks down and takes the eye contact

3.6 Participation frameworks

Participation framework – interaction in talk or in this case sign – is built and sustained through the visible embodied actions of the participants; gaze, proxemics, posture and head movement. The framework is dynamic, interactively organized, although made of individual actions, and open to challenge. (Goodwin 2000a: 1496.) In spoken interaction the mutual, embodied orientation makes it possible for other sign systems also function (id., 2000: 1497). In signed interaction the mutual embodied interaction is the prerequisite for signing.

Establishing participation frameworks is not only about the gaze and eye contact, but people also organize their bodies in concert with each other. This establishes a public, shared focus of visual and cognitive attention – a focus for attention and action – which creates mutual accessibility (Goodwin 2007: 57, 59, 65). The main interest in this study when it comes to participation frameworks is to examine how the participation frameworks are mutually organised by the participants, including how they are structured and contested (id., 53).
4 FINGERSPELLING AND MOUTHING

In this research fingerspelling is the mode of communication in focus. It is one of the mediational means that is used when the research participants interact with each other. Before going to multimodal analysis of the data, it is useful to see how fingerspelling is defined (linguistically) in research done by sign language linguist, 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 especially in fingerspelling. Since this chapter is created especially 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 that are used in Finland among FinSL signers, are so called international manual alphabet. They are presented in the appendix 1. They have been used in Finland since 1960s (Salmi & Laakso 2005: 319). Actually, signs used in fingerspelling in Finland are very close to so called French-American manual alphabet (exceptions being LETTER-P and LETTER-T, which differ slightly with their handshape). Fortunately, for this study, most of the research made on fingerspelling is done in the US on American Sign Language (ASL). However, it is important to remember that research findings made on ASL are not applicable to the way FinSL uses fingerspelling only because the signs for the Roman alphabet happen to be same. First of all, fingerspelling is a lot more frequent in ASL than in FinSL, fingerspelling is produced a lot faster than most of the Finnish fingerspelling is done and fingerspelling is used for other purposes than it is done in Finnish signing Deaf community (Padden & Gunsauls 2003: 26-27). There are also some notably different ways the fingerspelling is done. For example, in ASL people very often point with their index finger of the non-dominating hand to the wrist of the dominating hand when fingerspelling. By doing this, signers emphasise the fingerspelling, for example, when fingerspelling a name for the first time in a discussion.

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6 Before that Finnish Deaf community used ‘the old manual alphabet’, the same as the Swedish Deaf used then and still use. Some of the elderly still use the old ones, and they are also commonly known among community members. (Salmi & Laakso 2005: 37.)
There is not much research done especially on fingerspelling in FinSL, except for some small investigations on fingerspelling (for example Jantunen & Savolainen 2000), so this chapter will mostly summarise what researchers on ASL and British Sign Language (BSL) say about fingerspelling. It is important to bear in mind that research elaborated here is done in the situation where 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 high level. In contrast, my research focuses on actions where foreign language, English, is introduced to FinSL conversation and signers are bilingual in FinSL and Finnish.

The questions to be answered in this chapter 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 the manual alphabet and fingerspelling 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 2001: 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 & 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”.  

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7 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. (Padden & Gunsauls 2003: 14-15, Brennan 2001: 50, 55, 65.)
Fingerspelling offers the possibility for signers to access and represent the spoken language of the majority community. Manual alphabets 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 & Gunsauls (2003: 15, 26-29) have found several functions of fingerspelling in ASL in her sociolinguistic research. 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 (id., 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 discussion on the possible motivations FinSL people fingerspelling Finnish or English words, I would suggest that at least Finnish signers use English fingerspelling for the same reasons other Finnish people include English into their repertoires: English has become part of the everyday life, both work and leisure, for Finnish people. The role and usage of English language among Finnish people, as well as the way English language is integrated to language practices, is broadly researched and reported in Finland nowadays (Leppänen et al. 2008; Luukka et al. 2008). Those research findings can be
seen presenting the linguistic landscape and usage of the FinSL people as well, however, due to 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 have. In all probability, fingerspelling is only one of those practices.

### 4.2 The manual alphabet

The signs representing the symbols of writing have been called with many names, for example, fingerspelled letters, finger alphabet, alphabetic character signs or signs for alphabetic characters and the manual alphabet – the term I choose to use in this paper. Linguists are not in total agreement with the definition on fingerspelling, especially on the tokens in fingerspelling, as will be seen in this section. However, this section will heavily summarise the discussions around the phonology, phonetics and morphology of fingerspelling and concentrate more on different types of fingerspelling in order to support the coming analysis of the data.

The contact between spoken and signed language has made people to assume that fingerspelling is producing a written word with handshapes which are iconic representations of orthographic letters. However, while the iconicity is explicit in signs such as LETTER-L, LETTER-C and LETTER-O, 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). Although the manual alphabet may have developed as a direct result of language contact between a signed and a spoken language, it does not make them letters (Mulrooney 2002: 5).

ASL researchers, including Valli (2001: 64) and Liddell (1984) and Liddell & Johnson (1989), state that manual alphabets are ASL signs, lexical morphemes of the language. In other words, they are free morphemes, each composed of a handshape, a location, and an orientation. But when it comes to the movement segment, the manual alphabet signs seem to differ from the basic form of the sign. It is evident, that the signs LETTER-J and LETTER-Z,

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8 For referring to individual manual alphabets, I will follow Patrie & Johnson’s convention (2011) to gloss a sign as LETTER-A, LETTER-B, etc. and the strings of signs are represented by letters in small capitals separated by hyphens, as in E-L-I-N-A.
for example, have a movement segment (this applies to both FinSL and ASL), however, there are a number of fingerspelling signs that do not have a fully specified movement. In ASL, the most of the manual alphabet signs have been analysed as having the movement type *hold*. This applies to manual alphabets in FinSL (Jantunen 2003: 79; Jantunen 2007: 114), yet Jantunen and Savolainen (2000) mention this to be especially characteristic to ASL⁹. Jantunen (2003: 79; 2007: 114) clarifies the statement by explaining how those manual alphabet signs that do not have a movement segment, get one (a short movement ahead) when the sign is used independently to refer to the names of the letters. This is in alignment with the earlier definitions of FinSL signs to have at least one movement segment (Rissanen 1985; also Jantunen 2010), as well as the sonority argument, according to which the movement is the most salient feature of a sign (see for example Brentari 1989. Also Jantunen has widely explored sonority and movement in his recent research, Jantunen 2006, 2007, 2010).

### 4.2.1 The meaning of the manual alphabet

The meaning of manual alphabet is quite often vaguely defined as “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 lexical words, for example the grapheme ‘L’ is called /æl/ in Finnish and /ɛl/ 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).

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⁹ In Finnish: “Erityisesti ASL:n tapaan, lähes täysin ilman liikettä viitottuna (--) ” (Jantunen & Savolainen 2000).
4.3 Fingerspelling of words – signs in sequences

There are two rather outdated, very much opposing views on fingerspelling, i.e. the phenomenon of fingerspelling a word, with a sequence of manual alphabets.

The first one is that a signer simply signs one static manual alphabet after another. This view is based on a model which characterises fingerspelling as a simple correspondence of handshapes with the printed letter of the word of a certain spoken language. According to this 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 manual alphabet signs form together one complex sign. This view is strongly put forward by Wilcox (1992), and can be seen as an opposite view to the earlier presented, inadequate view on fingerspelling as succession of static handshapes. First of all, Wilcox does not emphasise the role of the manual alphabet 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 (id., 22). To give evidence to this claim he first refers to other researcher, such as Akamatsu (as cited in Wilcox 1992), who have come to the conclusion that fingerspelling is not only producing symbols for each written letter in a sequence. Zakia and Haber noticed already in 1971 (ibid.) that reading fingerspelling is not attending to the individual letters but the receiver should pay attention to the total pattern of the finger configuration. Akamatsu (idib.), 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 causes the envelope to expand, contract, or otherwise change shape” (id., 18).

Instead of seeing that fingerspelling is moving from a discrete handshape to another handshape, the hand movement of fingerspelling is moving towards the targets, the hand configurations which “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 emphasises the complex movements of articulators, the three dimensional character of production as well as the fact that a fingerspelled entity resembles one complicated sign.

As Wilcox’s view on fingerspelling gave much needed recognition to the complexity of fingerspelling, it also simplifies the manifold practices of fingerspelling into one manifestation (the most fluid way of fingerspelling) only. Johnson (1994) and especially, Patrie and Johnson (2011) have a much needed view of different ways of fingerspelling. Their view is shortly presented next.

### 4.3.1 Three types of fingerspelling

Johnson (1994) presents three types of fingerspelling: careful fingerspelling, rapid fingerspelling and ASL signs derived from fingerspelling, i.e. a lexicalized fingerspelling. In the work of Patrie and Johnson (2011), they present an in-depth description of the linguistic properties of the fingerspelled words, with similar categorization as in Johnson 1994. Next, I will go through each variation of fingerspelling, its structure, form–meaning relationship and
function. Each type of fingerspelling is also presented in the figures 3, 4 and 5 showing visually the relationship between the fingerspelling, written form of the 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 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 in a relatively even rate, which “the impression of a smooth and even rhythm”. (Patrie & Johnson 2011: 90-91.) Patrie & Johnson (id., 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 its meaning.

The concept of a template (whether a fingerspelled template or a template for the printed word) is a crucial concept to help to understand how the signers relate to the meaning of the fingerspelled word. In short, what Patrie and Johnson (2011: 29; 154) mean with template and how it is used when the receiver accesses the meaning to 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 & 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 is fingerspelling an English word H-O-U-S-E to another FinSL signer, both of the signer and receiver are bilingual in FinSL and Finnish, and English is a foreign language to them. Without knowing the exact process these people go through 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 the mode of mouthing is also considered.

*Rapid fingerspelling*, on the other hand, is used when the focus is more on the meaning of the fingerspelled lexeme instead of the spelling of the word. Rapid fingerspelling often occurs after the word has already introduced through careful fingerspelling. (Johnson 1994.) Compared to the previous type, the production is in different pattern and has a different linguistic structure when compared to the careful fingerspelling (Patrie & Johnson 2011: 90-91). This is due to the difference of the function between careful and rapid fingerspelling: in rapid fingerspelling the focus is on the spoken language word rather than on the individual signs, and for that reason the function is “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 1994, as cited in Patrie & Johnson 2011, 89). In rapid fingerspelling, the fingerspelled tokens have changed their linguistic structure, and the fingerspelling is ‘less complete’ when compared to careful fingerspelling. There are signs missing, strong coarticulation takes place and signs blend together. A fingerspelled word is very similar to a structure of a sign, “a set of movements and postures of the hand” (id., 90).

This is a very similar view to fingerspelling as the one Wilcox and Akamatsu are taking (see the section 4.3). However, Patrie and Johnson (2011) emphasise that even if it is possible to see the cumulative dynamic movement patterns within the word in rapid fingerspelling, it is misleading to refer to these 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 FinSL context too. When a fingerspelled word has to be produced again and again, certain processes start to take place in production (processes that Valli, 2001: 64 – 67, lists, for
example, deletion of some signs, change of location or handshape\textsuperscript{10} and a temporal sign is created as a result of lexicalisation of fingerspelling in time of one conversation. Figure 5 presents the relationship between a nonce, evolved from fingerspelling, and the meaning of it.

\textbf{Fig. 5} Rapid fingerspelling of \textit{talo} (‘house’) as a nonce (modified from Patrie & Johnson, Figure 26, 2011: 139).

The third type, \textit{lexicalised fingerspelling} happens when a sequence of signs that represent letters begin to act like one single morpheme, like a single sign. Lexicalised fingerspelling is a very common phenomenon in ASL. (Battison 1978 and Valli 2001: 64.) For example Valli (id., 68) makes a distinction between full, formal fingerspelling and lexicalised fingerspelling. He also states that the process of lexicalisation begins very quickly.

Thanks to the extensive collection of FinSL signs for sign language dictionaries in Finland, lexicalised fingerspelling has been studied in Finland too, although fingerspelling of other types have not been studied that extensively. Jantunen and Savolainen have researched FinSL signs that include fingerspelling (2000) and define lexicalised fingerspelling

\textsuperscript{10} The eight changes were first by Battison (1978). The changes are: 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 the relationship between people or places, change of direction or verb agreement.
as crystalised fingerspelling of at least two manual alphabet signs. The signs are attached to each other with a movement. Such signs are, for example, FinSL sign for TV (Finnish *television*) and Tuesday (Finnish *tiistai*). In comparison to ASL, FinSL does not seem to have lexicalised fingerspelling where each and every letter of Finnish word would be produced.

In addition to these three – careful, rapid and lexicalized fingerspelling – there is the fourth situation when manual alphabets are being used: when fingerspelling letter by letter. Then the focus, and motive behind the fingerspelling, is on communicating which Roman alphabets are sequentially represented. This type of fingerspelling is similar to spoken event, when a person names the letters in the word one by one, with 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 something done at the same time with a sign?’; ‘What is the relationship between mouthing, fingerspelling, signing and spoken/written language?’

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

There are different terms for mouthing depending on whether it is seen as mouth patterns derived from spoken languages or not (Boyes Braem & Sutton-Spence 2001). All 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 which are part of sign language morpheme while
mouthings are derived from a spoken language. I will concentrate on discussing the latter, since that is the form of mouthing that takes place when fingerspelling an English word.

Whether the mouthings are coincidental in sign languages or part of them, has been discussed lately among the sign language researchers resulting in no consensus (cf. Boyes Braem & Sutton-Spence 2001). Johnston and Schembri (2007: 184) point out how 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 case Auslan) and a spoken language (English) or part of the structure of particular signs. Next I will summarise what has been said about mouthings in FinSL, after which I will go back to ‘the debate about mouthings’ by discussing a multidimensional view on mouthings. The intention is to find out what is said about mouthing that could contribute to analysis of mouthings that take place in the intersection of at least three different languages: FinSL, English and Finnish.

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

Rainò (2001: 42) describes the variation and the relationship between FinSL and Finnish, and mouthings in the following way: “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 re-emerges 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 takes place only sequentially.” She also points out that mouthings are highly language and context dependent which is shown when signing takes place 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. (id., 41.) However, mouthings are unquestionably part of FinSL, and as a consequence, mouthings are acquired together with
the manual signs before or without an equivalent knowledge of Finnish words, for example, in the cases of small deaf children and deaf immigrants (id., 42)\textsuperscript{11}.

It is customary to use International Phonetic Alphabet for transcribing the mouthed (silent or audible) imitations of words (e.g. Rainò 2001: 43). I will follow the same way in my transcription.\textsuperscript{12} An example taken from Rainò (id., 44):

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

Ebbinghaus & Hessmann (2001) take a rather drastic view on mouthing (the research is done on German Sign Language). In their view sign language is a system that organises the interplay of \textit{independently meaningful} manual, nonmanual, and spoken units, as the title of their article states: Sign language as multidimensional communication: Why manual signs, mouthings, and mouth gestures are three different things. This is a very different view from what they call as a sign-centred perspective, which sees that such elements are phonological components of manual signs. In their opinion, neither mouthings nor mouth gestures should be regarded as components of manual signs. They see 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” (id., 133). They acknowledge that mouth and other articulators other than hands and arms provide information crucial to the understanding of signed utterances, but state that the status of such information is unclear (ibid.). As a result, they see that mouthing is a completely different type of meaningful unit and for this reason they would see that the more prevalent view on mouthing is \textit{reducing} many meaningful activities to one word-like type of unit. Instead of seeing mouthings and mouth gestures as

\textsuperscript{11} In an interview of a deaf immigrant came up an incident where the interviewee acquired the mouthing simultaneously to signs without knowing Finnish, after which he learned Finnish words (written) by accessing the meaning by remembering the manual sign used with the particular mouthing (Tapio & Takkinen, submitted in 2010).

\textsuperscript{12} The duration of mouthing is marked underlining the accompanying manual signs that are glossed in English. The imitated word-models are presented in Finnish with their English equivalents. Pausing between the signs is marked with /.
phonological components of manual signs, they see them as alignment and cohabitation of distinctly meaningful unit: “Meaningful activities of the hand can co-occur with meaningful activities of other parts of the body” (id., 134). They base this claim to the fact that in general, deaf people are familiar with written manifestations of words, and often able to identify words by lipreading (id., 135). They state that mouthings are words as faced by deaf people in direct interaction (id., 136). Another justification they give to their view is that if mouthings and mouth gestures were to be part of manual signing, they should be an obligatory part of the manual sign, and not a meaningful element on its own. However, what they do not mention is that mouthing seen in the sign language communities is not ‘just’ the visual representation of speaking. Rather unexplored, yet highly interesting phenomenon is that mouthings done by signers in comparison to mouthings that takes place when the hearing people speak (i.e. visual representation of uttering words) are sometimes different (Brennan 1992:95). Mouthing that represents word forms of spoken languages are also evolved to suit the visual medium and the visual culture of the Deaf community (Robert E. Johnson, Personal Communication, 22.4.2009).

Interestingly, Wilcox does not mention mouthing at all in his report on research of fingerspelling, yet it is not surprising. Mouthing has been rather in a similar position with fingerspelling in sign language research: It has been put aside because of their 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 take place very often in relation to fingerspelling. They have, for example, discovered how there is great variability in mouthing patterns, and that the signers might not use the correct pronunciation (correct from the view of English phonetics) for the word. For example the word antique may be pronounced more like ‘anti-cue’ (id., 38). Also Rainò (2001: 42) mentions mouthing in relation to fingerspelling when stating that fingerspelling can be one of the triggers to bring out mouthing.
4.5 Mouthing when fingerspelling English words in FinSL context

There is neither research nor mentions on mouthing and how it is done when fingerspelling English words in 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 pronounced English word. In other words, mouthing follows each letter that is fingerspelled. For example, mouthing is /house/ for H-O-U-S-E instead of /haus/ and /george/ for G-E-O-R-G-E instead of /ʤɔrʤ/. This actually is the similar way Finnish people pronounce words when they do not know how to pronounce English word correctly or want to highlight the way a word is written. Figure 6 (and the video clip language.wma included in the electronic version) show how the English word language is represented in spoken, written and signed form when carefully fingerspelled.

![Diagram showing mouthing when fingerspelling an English word 'language' in FinSL context.](image)

Signers very rarely form English words in the way the natives do – only when the word or name is very familiar (for example New York, Word as in Microsoft Word) and comes with a sign instead of fingerspelling. Mouthing when fingerspelled at the same time, comes in ‘written from’ also in cases when the signer knows how the word is pronounced. As a sign language interpreter I was particularly taught by the FinSL people to use this kind of mouthing so that it would support the fingerspelling. However, for me at least, it has
remained uncertain is it actually mouthing supporting the fingerspelling or perhaps the other way round. I would assume that whether fingerspelling or mouthing plays the superordinate role in the interaction varies according to situation.

What could be the reason for such practice? One of the reasons is likely to be that this way fingerspelling and mouthing proceed simultaneously. Following the argument of Ebbinghaus & Hessman (2001: 150) the multidimensionality of sign language makes the integration possible for such heterogeneous sign types, yet one would assume that integration involves some degree of simultaneity for eyes to perceive both channels.

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

Research with large collection of naturally occurring data would give answers on how and when mouthing would take place in relation to fingerspelling, revealing us 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 research focus of this study arises from the preliminary findings of the larger body of data. For example, the people who participated the video conference were interviewed, as well as I have spent time at their school doing fieldwork by observing and participating their life inside and outside the school.

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 (McCambridge 2006; 2007; Kuure & 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. There is also a fourth set of data from English language course for the deaf, Hedgedog (McCambridge 2007; 2008). 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.
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 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).

In the beginning I modified conversation analysis transcription for describing the interaction, however, since one of the interesting things in the interaction is the overlap of several communicative modes and the multimodal density, I chose the form of a partiture\textsuperscript{13} to highlight the overlap (see for example Haddington 2005). However, the partiture transcription with sign language was not enough to describe the interaction, and it has later on enriched with still pictures taken from the video for showing, for example, the body positions and gazes of people. The transcription and glossing symbols are presented in appendix 2.

As a tool for working with the videos and analysing the interaction I have used ELAN (EUDICO Linguistic Annotator). However, I find ELAN insufficient to present the data for readers to follow the analysis. In many ways, the transcription here owes a lot to Sigrid Norris’ multimodal transcription (2004).

\textsuperscript{13} Partiture as a score in manuscript for music in which simultaneously played notes are in vertical alignment.
6 THE 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 the largest: The analysis aims to capture the multimodality of the interaction in the classroom, and how the participants seem to change from channel to another and mode to another. ‘The Aviator’ will also lead to a focused analysis of modification of fingerspelling.

‘Guitar’, on the other hand, will describe the multimodal interaction on general level, yet the focus is on multilingualism and even more on the modification of fingerspelling than it has been in ‘The Aviator’. This is where mouthing will be mentioned and the section will bridge to the analysis of ‘Ultimatum’ where the focus is on the interplay of mouthing and fingerspelling.

The analysis of ‘Ultimatum’ is the narrowest and the most detailed analysis 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, the fingerspelled name goes through ‘an evolution process’ ending up in a nonce sign. The manual fingerspelling as well as the mouthing will be analysed and the change of the form will be explained in detail.

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 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 the analyst is to discern the communicative modes utilised in the given interaction. Since the list of communicative modes presented earlier in table 1, section 3.4, is not adequate for analysing signed interaction from a multimodal perspective, this section will present a list of communicative
modes that would cover the most crucial communicative modes used in the situation that is
in the focus of this research.

The communicative modes for this research are presented in table 2. The ones that are
not listed among the communicative modes Norris presents are in bold. It is important to
bear in mind that this list of communicative modes is only for 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 for some other analysis. For example,
fingerspelling and mouthing would easily go under the category of Finnish Sign language.
However, by separating them in three different modes, I want to emphasise how actors in
these particular situations use communicative resources, especially those on offer in signed
language, by efficiently modifying and even splitting simultaneously emerging modes into
two separate modes.

<table>
<thead>
<tr>
<th>Communicative modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Finnish Sign language</td>
</tr>
<tr>
<td>2) Fingerspelling</td>
</tr>
<tr>
<td>3) Spoken language</td>
</tr>
<tr>
<td>4) Mouthing</td>
</tr>
<tr>
<td>5) Embodied print (typing)</td>
</tr>
<tr>
<td>6) Disembodied print</td>
</tr>
<tr>
<td>7) Gesture</td>
</tr>
<tr>
<td>8) Gaze</td>
</tr>
<tr>
<td>9) Proxemics</td>
</tr>
<tr>
<td>10) Posture</td>
</tr>
<tr>
<td>11) Head movement</td>
</tr>
<tr>
<td>12) Layout</td>
</tr>
</tbody>
</table>

Table 2. Communicative modes in the data.
As noted before, the view on interaction is not only on modes but also on the medium the modes are utilising. In the figure 10, 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. It is important to remember that non-linguistic modes refer to those elements of interaction that are not part of the linguistic material of FinSL\textsuperscript{14}. This information is relevant especially in the case of heterogeneous group of signers where some of the participants have access to medium the others do not. Especially shifting from medium to another is one special feature of action in these kinds of interactional events.

**Fig 8.** Communicative modes in the data according to the medium.

\textsuperscript{14} Gesture, gaze, posture and headmovement can have a grammatical function in signed languages, as well as be part of the morpheme. However, in sign interaction similiarly 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 which captured a very hectic moment in a videoconference between a group of deaf and hard-of-hearing users of FinSL in 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, ‘Beehive’, organised for five schools. In the videoconference the Merikartano school participants were in contact for the first time with Deltebre.

The communication between the two schools was transmitted via Windows Live Messenger videoconferencing. Only the visual channel was used – the pupils communicated with written text and emoticons. Both parties also had a small webcam, a simplified video camera for web interfaces that was focused on the person or people sitting at the computer. In Merikartano, the computer screen with both received picture and message box were projected on the white screen with a video projector. Participants in the classroom were able to see the chat box and both received and sent webcam picture. Also the text being typed for Deltebre was visible to other pupils. What Deltebre was typing is not seen until they pressed the enter key, i.e. sent the texts for the receiver to see.

The video conference was the first time for the pupils to see each others’ faces, so in the beginning everybody introduced themselves in front of the camera. After introducing themselves the pupils also competed in a quiz. The questions had been made beforehand by the pupils. Teachers and I were mostly just supporting and acting as spokes persons in the classroom. The situation was relaxed, informal and the pupils were deciding themselves on how to negotiate the answer for the quiz questions.

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

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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 the spring 2005 and will be reported in the two forthcoming thesis by Hilkka Koivistoineen and Elina Tapio.
In ‘The Aviator’, the active people are especially JP 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 chooses to use spoken Finnish for hearing people who would be fluent in signing too. His main way of communicating is spoken Finnish with the help of a hearing aid. The fact that he has been part of a group of signers for many years, schooled in visually oriented place, where teaching and school environment is designed for sign language people, is seen in his way of visually oriented practices, for example, the way he scans the environment for signing (Ramsey & Padden 1998). Mari is deaf, native FinSL signer from a hearing family. In the situation at focus here, she has access only to what people sign, express in gestures, expressions and what is written on the board or the screen. All the teachers are hearing but fluent in FinSL,
especially Tapio. Close to him, there is a group of deaf boys and 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 which follows after that is quite hectic. A stripped-down transcription of the interaction during ‘The Aviator’ as a whole is presented in transcription (Appendix 2, and partly in the next section), which is enhanced with still capture images taken from the video. In short, what happens is that right after the question, Tapio and Mari start to sign with each other and at the same time Sirpa, Sari, girls, JP and I are talking about the possible answer. Tapio says to everybody else that Mari already knows the answer and suggested that JP could type the answer to Deltebre. JP hesitates if he gets 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: *Kääntää se*, ‘Translate it’. Sari starts to help girls with translating. At the same time, Mari starts to fingerspell the title to JP who types the word to be sent to Deltebre. At the same time, Sari is guiding 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 notice too 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, also projected to the white screen (figure 10):
6.3 ‘The Aviator’ – multimodality in the situation

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. Together with linguistic modes also gestures, pictures, text, postures and head movements are used. The participants have a lot to choose from and this demands a high level of attention.

The notation in the plates 1-2 aims at presenting the multimodality, overlap and timing of different communicative modes and action taking place (see appendix 2 for transcription and glossing symbols). Still pictures taken of the video recording are put on the right hand side of the notation in order to give a clearer picture on overlap of the two: speaking among the teachers and the girls, and mutual engagement of JP and Mari at the same time.

It is a rather typical practice at schools for teachers to sign and speak at the same time when there are hearing, hard-of-hearing and deaf people present. This is done especially when giving short instructions. Despite the obvious negative effect on the quality of both
languages, this practice is the fastest way to say something quickly to everybody present in the heterogeneous group such as this. A good example of this is when Sari draws everybody's attention to the whiteboard where the new quiz question has appeared (plate 1, lines 4-6). She initiates with exclamation *Heil* 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 she adds a sign that is a very iconic sign for 'ponder' or 'think hard'. After this she points to the whiteboard with her left index finger with the 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.

Plate 1.

After this the teacher’s and other participants do not seem to pay much attention to include everybody to their recipients. Unfortunately, the other video camera did not record

---

| Elina: | what’s the latest film made by leo[nardo di ]prio |
| Tapio: | [aa:] |
| Sirpa: | a [haa (-) |
| Sari: | [hei ]kuka tietää |
| Elina: | [KUKA TIIAA PONTA] pointing to the blackboard → do you [know] leaning over to JP |
| Tapio: | [mari]ainakin (0.6) tietää mair at-least know |
| Elina: | mari ( 0.4.) who knows |
| Tapio: | ymhn ( ) no sā >jp sāahan kiri- kirijotat vastauks well you jp you-CL I writ- you write-2 an |
| Tapio: | sā kirijotat [vastauksen] you write answer-GEN |
| JP: | [ no joo jos ( )] PRT yes if |
during ‘The Aviator’, so Tapio is not seen in the data. However, judging from his speaking which is hasty and fast (plate 1, lines 12-15), and the way JP and Mari gaze to his direction every now and then when Tapio is not speaking, he is shifting 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 go on talking, some of them unaware that JP is just about to type the right answer to Deltebre. 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.

Plate 2.
6.4 ‘The Aviator’ – participation frameworks

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

In the data, we can see how he is actively seeking access to different modes. This shows in his embodied action: he scans the environment with his eyes, is actively turning his head while scanning and cranes forward over the monitors that restrict his vision. His goal is to find the answer for the quiz question and type it to Deltebre, and the most effective ways are chosen and created to complete the task.

![Diagram of participation frameworks](image)

**Fig. 11.** Scanning - many options for emerging participation frameworks.

The first phase of the interaction is visually represented in figure 11 above. From JP’s point of view, this is the phase of selecting and scanning. There are many options in how and with whom JP could create a participation framework. JP is turning his head, directing his ear to the sources of talk, as well as scanning the environment with his eyes for any signing occurring. Simultaneously, he is alert and ready for making the contact with Mari, since he has got a hint earlier that Mari has the answer. However, at this point Mari is in the middle
of negotiating with Tapio in signing. The way JP is actively scanning the environment for possible signed information, is a typical way of establishing participation framework in the Deaf community (see for example McIlvenny 1995; Ramsey & Padden 1998). The turning of one’s ear towards the source of sound without eye gaze is a very familiar practice seen among people with a hearing aid. For this reason, I suggest that JP is combining both Deaf and hard-of-hearing practices when looking for the possible answer he is supposed to type.

![Diagram](image_url)

**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 the participation framework is established, Mari and JP engage in achieving the goal as quick as possible. This is done in a sequence where after each manual alphabet sign JP types the equivalent letter the sign refers to. There is a little break in this smooth action when JP does not perceive the LETTER-O in Mari’s fingerspelling but mistakenly types S instead. Simultaneously when typing the letter, he quietly whispers äs (‘es’) either to himself or for someone else in order to get assurance. However, Mari who is reading JP’s typing
from the whiteboard, 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 JP in talk that it is LETTER-O instead of LETTER-S, yet they are lacking in time compared to Mari’s reaction. JP corrects the mistake and the room falls quiet. Despite this short moment, JP and Mari do not seem to pay any attention to actions around them. While they work together on the answer, there is still a lot of talking around them. Obviously JP can hear it, but is fully concentrated on Mari’s fingerspelling and typing. This is presented in figure 13.

Fig. 13. JP and Mari in participation framework.

When Mari and JP have reached the last letter R, Mari signs ‘enter’, puts her hands down and keeps on looking at the white screen. JP does not respond to that by pressing the enter key, for which reason Mari glances at him. At the same time, JP establishes a contact with me to make sure the answer is correct and ready to be sent (figure 14 below). This initiation for interaction is very subtle, and actually interpreted as such based on his earlier way to use me as a source for English words. Here he seeks assurance for the answer by a gesture (hand on the enter key, ready to press it down) and an utterance Sitte mennee… (‘Here it goes...’) which is not followed by action of sending the answer. This suggests that the gesture together with the utterance is working 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: Jep (‘yep’). Almost simultaneously to my vocal answer, JP 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* already once to Tapio based on Tapio’s two comments *Mari tietää sen* (‘Mari knows it’) and *Jos sä JP kirijotat* (‘If you JP could write’). However, due to the monitors restricting the view, Mari’s fingerspelling and signing to Tapio is not captured in video.

At first, after Mari has oriented her body and hand for fingerspelling the word to JP, she starts with rather quick, yet clear and precise way of fingerspelling. This can be recognised as a typical instance of a careful fingerspelling where fingerspelling is relatively slow and the signs are produced in a relatively even rate (plate 3, images 1-6). For JP 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 in the same rhythm with fingerspelling without gazing to the keyboard. Since JP does not give feedback to Mari for being able to type the word based on Mari’s fingerspelling, the message to Mari is that her fingerspelling is too fast for JP. She stops fingerspelling and starts from the beginning (plate
4, images 9-10). This time she uses the fourth way the manual alphabet can be used 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 to letter-by-letter fingerspelling. As soon as Mari’s fingerspelling and JP’s typing is synchronised they engage themselves to a pattern that takes them to complete the task very quickly.

Plate 3.

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

Starting from the image 15 (plate 5), Mari’s left hand stays above the computer screen so that the palm faces JP. However, her head is turned to the whiteboard, eyes following which letters JP is typing. Mari fingerspells a new letter as soon as JP has typed the previous one. JP, on the other hand, checks each letter from Mari (her hand only), then shifts his gaze towards the keyboard to find the equal letter to type. Since he does not have to move his head in order to see the whiteboard, 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 whiteboard 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 ankle 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 this letter.

**Plate 5.**

As soon as Mari notices the mistake from the whiteboard, she emphasizes the sign by adding a strong, stretchy beat movement to the sign (plate 6, images 23-24). It is the movement that changes in signs when the signer wants to emphasise a word or a longer expression, rather than the handshape or the place of a sign since the movement is the most salient feature of a sign (see section 4.2, page 24).

Here we can see how the categories for different ways of fingerspelling (according to Partie & Johnson, 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, since 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 manual alphabets when given maximum attention to which Roman alphabet are in the sequence, suits the task to be accomplished.
This analysis also shows how Mari orients her body and brings her left, dominant hand to JP’s field of vision. In general, therefore, it seems that the modification of fingerspelling is motivated by the efficient completion of the task.

Plate 6.
6.5 ‘Guitar’

‘Guitar’, the second situation under the analysis, took place during the same videoconferencing situation as the previous one. ‘Guitar’ takes place little bit less than three minutes after ‘The Aviator’. Some of the signing is not captured by the video cameras, however, what is perceived, is in the overall transcript presented in appendix 4. Two girls, Suvi and Laura, are having their turn to be in front of the web camera and the computer to type the answer to Deltebre’s question in the quiz. Laura is a hard-of-hearing member of Finnish Deaf community. With several deaf friends and spending her school years with peers who have a strong sign language background, her signing is extremely fluent. (For me it was difficult to tell in the beginning whether she is a native user of FinSL or not.) However, she very often seemed to communicate in speech with the hearing teachers as well as tended to...
speak to me too, for example, when asking for help for English exercises. Suvi is deaf native FinSL person from a deaf family. Before the web-conference it had become evident that she especially was familiar with social media and online environments. In many instances during the course she expressed strong agency and activity when working together with others in the online environment of the course (Tapio 2010; Tapio, forthcoming).

By the time ‘Guitar’ takes place, the groups in Merikartano and Deltebre have got into a good rhythm of exchanging questions and working together for finding answers. The group in Merikartano is very much in mutual focus for what goes on in the quiz and what the Spanish pupils are typing to them or communicating through the webcam. Suvi and Laura are now sitting side by side in front of the computer where the webcam is. Laura is supposed to type the answer back to Deltebre. They share a focus on both computer screen and the whiteboard, but at the same time are not in an ideal face-to-face position for signed communication between them two (Fig. 15).

![Fig. 15. Laura (at front) and Suvi at the computer.](image_url)

A question What is the most famous musical instrument in Spain? from Deltebre pupils appears on the Messenger, both PC screen and whiteboard. Laura and Suvi do not notice the question straight away because they are signing together, talking about the question they are planning to ask Deltebre. At the same time, the teachers exchange gazes across the room. Sirpa mumbles quickly Kitara, banjo, vai onko? ('A guitar, a banjo, or is it?'), Tapio
similarly whispers quickly the right answer, *kitara* (‘a guitar’). Only JP is close enough to Tapio to hear this exchange, but this we cannot know for sure.

The girls notice the question after several people have pointed it out to them by pointing gestures or vocally calling Laura (a girl on the back calls her name). As a consequence, there is again a lot of overlap in speaking and signing similar to the overlap that took place when the question on ‘The Aviator’ came. Everybody in the room starts to negotiate the right answer and, more precisely, working towards getting Laura to 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 board, signs FinSL signs translating some of the words in the question: MIKÄ MUSIikki ESPANJA (‘what music Spain’) (line 15 in the transcription below), turning her gaze to Sari who is again speaking and signing at the same time, but prolonging 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 her, simultaneously lowering her voice to a whisper.

---

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

   (-) ei oo onko (.). mikä tämä on

8. JP

   (--)

---

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

    TITÄÄ MIKÄ (ind. finger stays in the place)

15. Suvi

    KYSYY MIKÄ SOITIN ESPANJA

---

16. Sari

    espanjassa mikä musiikki- niinku tavara

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

While Suvi is translating a sign KITARA ('guitar') to English, she suggests first the bass guitar, by fingerspelling B-A-S-S-O (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 whiteboard, signing ÖIKEIN (‘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 stops to think, her right hand fingers in a handshape for LETTER-K, but as if for herself. 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 manual alphabets 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 manual alphabet 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, now Suvi proceeding quicker than Sari for signs LETTER-T, LETTER-A and LETTER-R (images 10-13, plate 9). This negotiation of right sequence of letters in fingerspelling between Suvi and Sari takes 4,2 seconds in total.

Plate 9.

Suvi’s hand still in sign LETTER-R, she brings her hand to the field of vision of Laura, simultaneously switching to LETTER-G (images 13-14, plate 9). By then, Laura has erased her previous typing *kitar* and has entered word *gitar* in the Messenger box. She points to PC
screen, signs OIKEIN, ‘right’, but Suvi does not approve Laura’s spelling. This she communicates by insisting Laura to 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 on manual alphabet LETTER-U by modifying the movement of the sign: she adds a movement to LETTER-U sign, a short, strong movement to the right (image 17 and 18, plate 10). In a typical fingerspelling situation this movement would actually suggests two LETTER-Us instead of one, but here it seems that the movement is for emphasis, not a form of reduplication in fingerspelling. Emphasis of this particular sign in fingerspelling is most likely due to the fact it was the letter U that was missing in Laura’s suggestion for the answer.

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 ankle where the camera was placed. Table 3 shows what kind of mouthing she has in relation to her signing.
### Table 3. Mouthing in relation to fingerspelling G-U-I-T-A-R.

<table>
<thead>
<tr>
<th>Finger-spelling:</th>
<th>G</th>
<th>U</th>
<th>I</th>
<th>T</th>
<th>A</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouthing:</td>
<td>(g)e:</td>
<td>u:</td>
<td>i:</td>
<td>t**:</td>
<td>a:</td>
<td>-</td>
</tr>
</tbody>
</table>

* Since 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:/, but only the tongue touching upper, front teeth.

Contrary to usual mouthing that takes place when fingerspelling, it seems that Suvi’s lips are forming silently the Finnish names of 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 closed already well in advance.

Suvi’s fingerspelling in this analysed sequence is a typical example of signing letter by letter, naming the Roman ortgraphs in a sequence, similar to Mari’s fingerspelling in ‘The Aviator’ after she switches from careful fingerspelling to this type of signing.

What is the most intriguing practice of fingerspelling captured in this clip of video recording, is Suvi’s way to change the fingerspelling sign ‘on the fly’ when moving her hand from place to place, for people who are on her right, left, sitting and standing in the computer lab. The way she fingerspells to Laura, the person sitting right next to her, is also a typical way of signing when the perceiver is simultaneously engaged in another activity that requires one’s eye gaze (writing with a pen, in this case typing on the keyboard): Suvi’s right hand is carefully placed to Laura’s field of vision, on the right hand side of the keyboard, where Laura can capture the manual alphabet, type it on the keyboard with ease. I suggest, that since the signing takes place at the edge of Laura’s focus, Suvi adds horizontal movement to the crucial signs.

### 6.6 Conclusions of both ‘The Aviator’ and ‘Guitar’

It is obvious that in video-conferencing situations there are several motivational factors that are causing the modification of fingerspelling described above. First of all, a hectic problem-
solving situation because of the competition and a motivation to win makes the participants to draw from different sources as quickly and efficiently as possible. They make choices between who to get the answer from and what tools (mediational means) to use for that. In both cases they choose fingerspelling to mediate the English word to the person that is supposed to type it with the keyboard.

Fingerspelling and typing is arranged in the chain of action where after each signed manual alphabet, 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 where each manual alphabet is signed to name the written letters one at a time. This is seen in independent movement added to most of the signs, and 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: the visual contact between the participants is heavily restricted. However, the participants are creative in modifying the fingerspelling when adjusting their bodily positions, moving the hand above the obstacles, bringing the hand to the visual field of the one who needs to receive the message, adding extra movement to the sign and holding each sign as long as needed for the ‘secretary’ to pay attention to it and type it.

### 6.7 Ten Jasons in ‘Ultimatum’

The third video recording under the analysis is a videotaped FinSL conversation that was collected in order to get data with several emergences of fingerspelling of English words. The goal was to find out how fingerspelling is modified inside one conversation, and how people use mouthing in connection to fingerspelling.

To get this kind of data, two young adults of the Deaf community were invited to discuss together in a casual coffee table conversation on an action movie _Bourne Ultimatum_ right after seeing the movie in the movie theatre. The assumption was that such a topic would invite the participants to fingerspelled English words, preferably one word several times. One of the two participants is from a deaf, FinSL family and the other one a FinSL person from rather hearing background (born to hearing parents and schooled with oral
method), yet since his late teens he has strongly been a member of the Deaf community. The participants did not know the data collection was looking for fingerspelling of English words. They were left with the camera to discuss freely as long as they wanted to. The tape is forty-five minutes long in total and contains several instances of fingerspelling English nouns, proper names and acronyms (e.g. The End, David, Rambo, CIA and FBI). The name of the main character, Jason, emerges ten times during the discussion and those sequences are selected for the analysis. The sequences of fingerspelling are named Jason 1-10 based on the order on the tape. In Jason 2, the signer begins with LETTER-B. This is a mere slip of a hand, as the signer is starting to fingerspell the family name Bourne instead of the name Jason. (This was confirmed later on by the signer himself.)

Being aware of the fact that Jason is actually a proper name, and as such not a typical example of an English word, I have chosen to focus on that word since, after all, it is an English word with no equivalent to any Finnish names, and orthographically as well as phonetically foreign and English to Finnish people.

The table below summarises the ten instances of fingerspelling ‘Jason’ during the video-recorded conversation. Each handshape that is recognised in the fingerspelled sequence is notated there with the stokoean symbols Rissanen (1985, presented in appendix 2) introduced to FinSL research. The handshape that is presented in figure 18, however, is written with Johnson & Liddell (1996) notation since the stokoean symbols are not accurate enough for this particular handshape. The handshape appears in Jason 6 and Jason 9 and it can be interpreted as a version of LETTER-N. However, it differs from the usual form: the full handshape is not formed since the base knuckles of the index and middle fingers are extended, yet the middle and top knuckles are flexed. I have glossed LETTER-J and LETTER-N in Jason 1, 2, 4, 5 and 8 as a manual alphabet since they appeared with the movement or the flexion the manual alphabet entails.

There were two handshapes which emerged as a result of coarticulation: a coalescence of LETTER-S and LETTER-O (fig. 16, marked as S/O in table 4) and a coalescence of LETTER-A, LETTER-S and LETTER-O (fig. 17, marked as A/S/O in table 4). The latter handshape appeared in seven instances.
<table>
<thead>
<tr>
<th></th>
<th>Handshapes and the manual alphabet</th>
<th>mouthing</th>
<th>duration (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason 1</td>
<td>LETTER-J, A, S/O (fig. 16), LETTER-N</td>
<td>/jason/</td>
<td>1:07</td>
</tr>
<tr>
<td>Jason 2</td>
<td>(LETTER-B), LETTER-J, LETTER-N</td>
<td>/jason/</td>
<td>0:67</td>
</tr>
<tr>
<td>Jason 3</td>
<td>I, A/S/O (fig. 17)</td>
<td>/jason/</td>
<td>0:32</td>
</tr>
<tr>
<td>Jason 4</td>
<td>I, A/S/O (fig. 17), LETTER-N</td>
<td>/jason/</td>
<td>0:46</td>
</tr>
<tr>
<td>Jason 5</td>
<td>I, A/S/O (fig. 17), LETTER-N</td>
<td>/jason/</td>
<td>0:61</td>
</tr>
<tr>
<td>Jason 6</td>
<td>I, A/S/O, b-12” (fig. 18)</td>
<td>/jason/</td>
<td>0:26</td>
</tr>
<tr>
<td>Jason 7</td>
<td>I, 5”</td>
<td>/jason/</td>
<td>0:31</td>
</tr>
<tr>
<td>Jason 8</td>
<td>I, A/S/O (fig. 17), LETTER-N</td>
<td>/jason/</td>
<td>0:79</td>
</tr>
<tr>
<td>Jason 9</td>
<td>I, A/S/O (fig. 17), b-12” (fig. 18)</td>
<td>(not captured)</td>
<td>0:24</td>
</tr>
<tr>
<td>Jason 10</td>
<td>I, A/S/O (fig. 17), flex from the wrist (η)</td>
<td>/jason/</td>
<td>0:37</td>
</tr>
</tbody>
</table>

Table 4. Ten times Jason.

**Fig 16.** A coalescence of LETTER-S and LETTER-O, i.e. similar to LETTER-O, but the tip of the thumb rests on the fingernails.

**Fig 17.** A coalescence of LETTER-A, LETTER-S and LETTER-O, i.e. b-1234” with Johnson & Liddell notation (1996).

**Fig 18.** LETTER-N in the data, i.e. b-12” with 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 recognized: LETTER- J has the orientation and the movement of the sign, also the LETTER-A is distinctly produced. There is strong coarticulation taking place when signing LETTER-S and LETTER-O, yet there are elements left of them both, for example, the knuckles are flexed. LETTER-N is clearly produced with two extended fingers (pointing finger and the middle finger). In the rest (Jason 2 to 10), there is only an extended little finger (handshape /I/) left of the LETTER-J, orientation stays the same throughout most of the fingerspelling, and the coarticulation is even stronger. Also the duration of the Jason 1 is different from the rest, 1,07 seconds. It is a lot longer in duration compared to the rest, varying from 0,79 to as short as 23 hundreths of a second.

While the fingerspelled word goes through many changes, the mouthing does not seem to change at all. Mouthing is clearly /jason/ in nine of the cases (the mouthing of Jason 9 is not captured on the video). However, for the Jason 1, the ending /n/ is different from the rest with the strongly rounded and extended lips.

These fingerspellings of Jason seems to follow what Patrie & Johnson (2011) and Johnson (1994) have said about different types of fingerspelling: 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. There are signs missing and strong coarticulation takes place. In other words, the signer gives just about enough information to the recipient to recall the active template of the word given in 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 the analysed piece of conversation the careful fingerspelling is used even though the signer can expect the receiver to know the name. It would be interesting to know how the signer would have fingerspelled the name in a case the other person had been familiar with the film character at all.

As it is shown in table 4, all cases of Jason after the first one vary quite a lot from each other: the duration varies, the type of coarticulation varies etc. However, this analysis cannot state the reasons for such changes or see any pattern in how the fingerspelling is modified time after another. The reason is that this analysis has not paid much attention to
the context the fingerspelling of each case. The processes of modification of the manual alphabets when the fingerspelling of the same word is repeated needs two things: more data and attention to the syntactic factors of the fingerspelling as well as the situatedness of the interaction.

Based on the analysis of ‘Ultimatum’, however, I summarise these preliminary findings which offer a good starting point for the future research: When fingerspelling an English word several times in FinSL conversation, the first time seems to happen in the way Patrie & Johnson (2011) and Johnson (1994) suggest: careful fingerspelling takes place. After that fingerspelling works as a nonce, yet the consequent signed instances vary, the length and the handshape of each manual alphabet is unpredictable and do not seem to follow any logic of ‘evolving’. Mouthing in relation to fingerspelling, however, seems to keep its form throughout the repetitions. Mouthing is following the sound-letter correspondence similar to Finnish writing system thus giving a 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.

JP, 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 (2000a: 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 orient 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 manual alphabet 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 & 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 & 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 manual alphabets. 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, one main question concerning historical body is about the innovativeness and habituality of the practice under analysis: to what degree is the action taking place a habitual practice? Based on my observations of sign language interactions and on analysis of the situations recorded and included in the data of this study, I contend that the practice of modifying fingerspelling in the ways previously described is indeed a habitual practice, particularly in relation to typing and writing tasks.
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 that choice was made following the choice to focus on language and social action rather than solely on language. The multilinguicity of the signers and of their linguistic context also suggested a wide range of questions 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. After a presentation of my paper at a seminar, a member of the audience once asked me if I intended to be the arbiter of the difference between a FinSL sign and a gesture. My answer obviously is and will be ‘no;’ however, I have formulated the question to myself as follows. As I am not trying to create categories for modes, let alone define boundaries between them, how will I avoid modal categorisation or demarcation if I must nonetheless describe the modes used in a particular situation? This study follows Norris’ method of analysing multimodal interaction and begins by discerning the communicative modes used in a situation, as instructed by Norris. That process led directly to categorisation and to a decision about the difference between ‘linguistic’ and ‘non-linguistic’ elements. Mid-analysis, Norris’ categories began to seem limited and—I concluded—to require substantial changes to cope with the phenomena presented in the data of this study.

For example, Norris—who deals with spoken languages only—easily explains pointing and the use of space. However, in signed languages, these phenomena are also part of the grammatical elements of the 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 they are—after all—‘one system’. 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. Norris’ categories also lack a multilingual perspective, which in terms of the study of spoken languages might suffice; however, when dealing with spoken and signed languages in the same data, a frame with more dimensions is required.

The data I selected for study has been another source of challenge: only three instances have been analysed, yet because the scope of that analysis has been ‘all or nothing’ in nature, the material has sometimes seemed overwhelming. For this reason I found myself questioning the representativeness and validity of my findings in the beginning of the research process. However, I do not claim that this study presents what FinSL signers always do, but I consider that we can treat the data as informative and representative of FinSL signers because the participants in the situations recorded act with ease and apparent experience. Moreover, as is typical of ethnographic research, all the preliminary findings of this study have been triangulated within the community in which the author conducts research. On this basis it is evident that the phenomena apparent in the data (for instance the modification of fingerspelling and the use of a range of semiotic resources in language activity) are not simply exceptions or situated in the periphery of the everyday practices of the Deaf community.

I suggest in summary 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 initial inquiry—that much pertaining to the phenomena of fingerspelling English words in a FinSL context 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

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


Suomalaisen viittomakielen sormiaakkoset

Alla on esitetty suomalaisessa viittomakielessä yleisesti käytössä olevat sormiaakkoset. Aakkosille e, g, j, p, ja x on esitetty kaksi vaihtoehtoa.

Suvi

http://suvi.viittomat.net/print_alpha.aspx
Appendix 2. The transcription and glossing symbols.

**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
- **thumb-up**: 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)
- **KÄVELÄx**: 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 ca]prio

2. Tapio: [aa.]

3. Sirpa: a [haa (-)]

4. Sari: [hei [kuka tietää]]

   hey who know-3

   [KUKA TIE TÄÄ POHTII] pointing to the blackboard →

7. Elina: do you [know]

   leaning over to JP

8. Tapio: [mari]ainakin (0.6) tietää

   mari at-least know

9. Elina: mari (0.4.) who knows

10. Tapio: ymhn (.) no sää >jp säähän kiri- kirjotat vastauks

    well you jp-you_CLI write-you write-2 an

11. Tapio: sää kirjotat [vastauksen]

12. you write answer-GEN

13. JP: [no joo (.)]

14. PRT yes if

15. JP: [jos mä vaan saan selevää] cranes forward towards mari

16. if I just make-1 clear-PART

17. Tapio: [nii nii] to mari

18. PRT PRT

19. Mari: (TIE TÄ Ä) TARKOITTA A (NÄYT TELIJA) thumb pointing

20. (know) mean (actor)

21. girl 1: joo yes

22. se o (.) leo

23. girl 2: it is (.) leo

24. girl 1:

25. girl 2: (-) lentäjä

26. (-) flyer

27. Tapio: (-) elikä englanniksi käännätät [sen]

28. (-) so english-TRA translate-PL-IMP it-GEN

29. JP: jos mä ossaan

30. if I can-1
Mari: [T-H-E] [A-V-] I looking at the blackboard

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

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

Tapio: ei. the aviator

Sirpa: täälä täälä mari sormittaa sitä

here here mari fingerspell-3 it-PAR

---

Tapio: [ >nii mutt se on vira- ] the aviator on se elokuvan nimi ( ) [se suo]meksi on

yes but it is off- the aviator is it movie-GEN name it Finnish-TRA is

Mari: LETTER-T LETTER-H JOO

looks at jp, looks at the blackboard

JP: types THE

Sar: ai jaa ( ) aha

Elina: [täällä tullee]

[aha]

here come

---

Tapio: [lentäjä mutta se ei ole flyer mutt the aviator se on vaan

flyer but it not is flyer but the aviator it is just

Mari: [A - V - I]

Sari: jo

JP: [types A V I]

---

Tapio: [kännetty ] nimenä< mutta mari ( ) mari tietää sen]

translated name but mari mari know it-GEN

Sirpa: [just jo] okei hyvä

right yep okay good

Elina: jo]

yep

---

Mari: [LETTER-A LETTER-T LETTER-O LETTER-O LETTER-R >KUNNOSSA HYVÄ<]

allright good

JP: [types A T R] backspace O R

e[i[ku o ei tuosta] saa selevää ( ) kuuroj- aa

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

Sari: [öö oo pitäs olla siinä]

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 etä kuka on maalannu taulun mona lisa*
74       why-NEG they ask that who has painted picture-GEN mona lisa
75  Elina:  @@  [jee]
76       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**

<table>
<thead>
<tr>
<th>Line</th>
<th>Name</th>
<th>Action/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sari</td>
<td>Hei tuossa on tullu jo kysymyksiä</td>
</tr>
<tr>
<td>2</td>
<td>Suvi</td>
<td>(---)</td>
</tr>
<tr>
<td>3</td>
<td>A girl</td>
<td>Laura</td>
</tr>
<tr>
<td>4</td>
<td>Elina</td>
<td>HEI KYSYMYS OS.valkokangas kysy (--)</td>
</tr>
<tr>
<td>5</td>
<td>JP</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Tuula</td>
<td>noni Timo timo pittää tietää tämä (--)</td>
</tr>
<tr>
<td>7</td>
<td>Laura</td>
<td>(-) ei oo onko (.) mikä tämä on</td>
</tr>
<tr>
<td>8</td>
<td>JP</td>
<td>(-) ON (--)</td>
</tr>
<tr>
<td>9</td>
<td>Tapio</td>
<td>eiköhä se oo luulis eikku (-- ON (--)</td>
</tr>
<tr>
<td>10</td>
<td>Suvi</td>
<td>en minä tiiä siitää mittää</td>
</tr>
<tr>
<td>11</td>
<td>A girl</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Tapio</td>
<td>kitara (-)</td>
</tr>
<tr>
<td>13</td>
<td>Laura</td>
<td>pointing to the blackboard</td>
</tr>
<tr>
<td>14</td>
<td>Sari</td>
<td>tiiättekö mikä TIETÄÄ MIKÄ (ind. finger stays in theplace)</td>
</tr>
<tr>
<td>15</td>
<td>Suvi</td>
<td>KYSYY MIKÄ SOITIN ESPANJA</td>
</tr>
<tr>
<td>16</td>
<td>Sari</td>
<td>espanjassa mikä musiikki- niinku tavara ESPANJA MIKÄ MUSIIKKI TAVARAxx</td>
</tr>
<tr>
<td>17</td>
<td>Sari</td>
<td>mikä niinku eniten käytetty MIKÄ ENITEN KÄYTTÄÄ</td>
</tr>
<tr>
<td>18</td>
<td>JP</td>
<td>gitar</td>
</tr>
<tr>
<td>19</td>
<td>Laura</td>
<td>(--)) shrugs</td>
</tr>
<tr>
<td>20</td>
<td>Tapio</td>
<td>se liit- (--)) signing</td>
</tr>
<tr>
<td>21</td>
<td>Laura</td>
<td>floated cheeks</td>
</tr>
<tr>
<td>22</td>
<td>Suvi</td>
<td>RUMMUT palm open upwards @ei @ei</td>
</tr>
<tr>
<td>23</td>
<td>Tapio</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Laura</td>
<td>y.1. TIETÄÄ RUMMUT</td>
</tr>
<tr>
<td>25</td>
<td>Suvi</td>
<td>y.1. EI-TIEDÄ y.1.</td>
</tr>
<tr>
<td>26</td>
<td>Laura</td>
<td>KITARA JOKU KITARA LETTER-T K UNOHTAA y.1.</td>
</tr>
<tr>
<td>27</td>
<td>Elina</td>
<td>@@@</td>
</tr>
<tr>
<td>28</td>
<td>Laura</td>
<td>KITAR (typing) points to big screen</td>
</tr>
<tr>
<td>29</td>
<td>Suvi</td>
<td>&gt;KITARA B A S-&gt;O &lt;</td>
</tr>
<tr>
<td>30</td>
<td>Laura</td>
<td>OIKEIN &gt;K-I-T-A-R&lt; points to PC screen</td>
</tr>
</tbody>
</table>
Suvi

K----------------

Elina

finger on backspace

Laura

hits backspace

Sari

g:llä alkaa

Sirpa

LETTER-G

gee

Laura

hands visit the keyboard

Sari

guitar

Sirpa

guitar

Laura

G I TA R

Laura

OIKEIN points the screen

Suvi

four backspaces

Laura

four backspaces

Suvi

G U I T

Laura

LETTER-U LETTER-T

Suvi

LETTER-A

Laura

enter

Suvi

nod

Laura

(2.0) aaaaaahaha

Laura

claps twice

Suvi

thumb-up