Interaction in two modes

Conversation Analysis of face-to-face and computer-mediated task-solving situations

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Discourse studies and conversation analysis has been interested in interaction for a long time. The main focus has been in spoken interaction but also computer-mediated communication has gathered more and more interest. For spoken interaction, Sacks, Schegloff, and Jefferson (1974) have been fundamental in describing turn-taking in interaction. Swain, on the other hand, has studied how learners negotiate for meaning in conversation. In this thesis, the interaction of learners in two modes of communication, face-to-face and computer-mediated, was studied. The participants were advanced learners of English studying in a Finnish university. The goal of the study was to examine how learners interact in the two modes and what considerations should be done regarding learning tasks in updating the language classroom to the CMC medium. The method of analysis was Conversation Analysis. Generally, it was found that for most learners the mode of communication does not seem to greatly affect performance but that there are some whose performance in one mode does not predict performance in the other. Furthermore, learners have trouble adapting turn-taking rules from the more traditional face-to-face communication mode to the computer-mediated environment. As such, it seems useful to offer the learners tools to externally control turn-taking in such situations. It should also not be assumed that high-interaction learners perform similarly in, for example, the computer-mediated environment.

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1 Introduction

The world is being digitised rapidly, and with it the school environment follows suite. More and more people are constantly interacting with digital media and each other via computers, telephones and other devices. This holds true especially now that the COVID-19 pandemic has forced a large portion of the world's population to actively avoid being with each other in the same physical space, driving many schools and learning institutions to abandon the physical classroom and hold their lessons in some kind of online environment, be it a group video call or some kind of text-based chat platform. Thus, it follows that more and more digitised learning environments would be introduced to the classroom as language teaching and learning adapt to the changing world around them. As I will show in the next section, optimal language learning happens in interaction and to encourage interaction, often communicative tasks are used in the language classroom. As Nunan (2012, 131) notes, such pedagogical tasks, while separate from tasks that people perform in the real world outside the classroom, should still have some link to language use in that said real world. As such, it follows that given the rapidly digitizing 'real world', language classroom are forced to also digitise some of their tasks to uphold that link. To this need, computer-mediated communication (CMC) and CMC tasks seem like an appropriate answer. Furthermore, if CMC tasks are to be actively used in the classroom environment, more robust research regarding their use and how learners perform in these tasks is needed.

In this thesis, the main goal was to study how learners interact in both the perhaps more familiar and traditional spoken environment and the perhaps more unfamiliar - at least in the language classroom context - computer-mediated envi-

ronment. To this end, the participants, split into two groups of five, were tasked with solving a problem while able to talk to each other face-to-face and while sat at a computer, able to communicate each other only through writing in an online chatroom. Data from both tasks of both groups were recorded - the face-to-face task was both filmed and an audio recording was obtained, and the chat log of the computer-mediated task was saved - and subsequently analysed using Conversation Analysis as the main method.

The present study starts with a section overviewing interaction and how it has been studied. This section also discusses the two modes of communication that are the point of interest for the present study: face-to-face communication and computer-mediated communication - what are the central aspects of these two modes and how have they been studied. The section then moves on to discuss conversation analysis and how it has been utilized both in F2F communication and CMC. A particular emphasis is on turn-taking, as it is one of the main research interests in the present study. Finally, a look at tasks and how task type affects the output of task participants is given. This is also an important point to consider, as the choice in task type can have considerable effects in how the participants interact

The third section introduces the setting of the present study, including the precise research questions, the participants and the task types that were used. The participants are briefly discussed with regard to their selection, amount and how they were divided into groups. Both of the chosen tasks - one for CMC, one for F2F are presented and examined with regards to the discussion in section two on how task type affects participant output.Finally, te third section briefly presents the questionnaire the participants filled after the tasks. This is only a surface-level look at why it was structured and constructed as it is; the full questionnaire is provided for further examination.

Section four, then, contains the presentation of the data collected during the

tasks as well as the analysis of the data and the discussion of findings made. The section is divided into two larger parts. The first part contains the examination of each individual participant in the context of the group they were in. The second part discusses the most relevant findings in these individual examinations, with regards to the theoretical background laid out in section two.

The final section contains the conclusions that can be drawn from the evidence presented in the present study. It also considers the limitations of the present study, and presents suggestions for further study tin lieu of these limitations.

2 Interaction and modes of communication

This section will lay down the theoretical framework for the thesis. The discussion starts with a look at the interaction approach to language learning and establishes the key concept of collaborative dialogue. Following this is an overview of computer mediated communication and its features along with a brief look at the research that has been done in the past, with a focus on language teaching and learning. Further on, the discussion will move on to consider spoken language and its main features with a focus on pragmatics and spoken language in social situations. Finally, the issue of task design and its effect on learner output will be investigated, as the current study relies on correct and optimal task design for its research data.

2.1 Interaction in two modes

First, the two modes of communication that are the focus of the present study will be introduced. The section will begin with a look at computer-mediated communication, aiming to give a brief overlook of what it constitutes, its different types and how its been studied. Then, the same will be done to face-to-face communication. Following these, I will move on to discuss the interaction approach to language learning in general.

2.1.1 Computer Mediated Communication

Computer mediated communication is, as the name suggests, communication that takes place between people via the medium of a computer – hereafter referred to as CMC. This communication can be either text or voice based, although in this thesis the focus will be largely on text based communication. Generally, CMC is

split into two categories: synchronous and asynchronous. These categories refer as to when the recipient(s) in the communication situation receive and read the senders message. When the message is read and processed immediately, the communication is synchronous and asynchronous when this happens at a later time (as opposed to almost immediately after the message is sent) (Herring 1996, 1). However, Garcia and Jacobs (1999) present another category that could be thought to reside between synchronous and asynchronous: quasi-synchronous CMC (QS-CMC) (Garcia and Jacobs 1999, 339). They argue that CMC where the participants compose messages that are then sent to all the participants to see is not synchronous but quasi-synchronous because "... although posted messages are available synchronously to participants, the message production process is available only to the person composing the message. Thus the process of message transmission (posting) in QS-CMC is not synchronous with message production" (ibid). The task-based problem solving situation the present study employs would be considered quasi-synchronous CMC, as the CMC portion of the task has the participants compose messages on a computer which they then send to a shared chat box for the rest to see. As such, for most of the present study the term CMC refers to quasi-synchronous CMC in particular, unless otherwise noted. Having established these terms, the following will examine briefly the history of the development of computer mediated communication and how it has been studied in general.

Computers are a relatively new invention in the human history, although their development has been very rapid in the last centuries. In 1978 Starr Roxanne Hiltz and Murray Turoff published their book titled *The Network Nation*, regarded as an early classic in the field of CMC research (Herring 1996, 3). All in all, the field of CMC research is still quite young, especially considering how new an addition computers are. As Herring, Stein and Virtanen note it was not until the 90s that linguistic study, in particular, of CMC attracted serious attention Herring, Stein,

and Virtanen (2013, 3).

One of the main concerns of this thesis and study is the language of CMC: what is typical of it and how does it intersect with spoken language in general and in problem solving task situations in particular. The nature of language in CMC has been one of the key interests in CMC research, as noted by Herring: "it is typed, and hence like writing, but exchanges are often rapid and informal, and hence more like spoken conversation." Herring (1996, 3). She goes on to consider the other, more unique aspects of CMC language, such as the use of emoticons, special lexis and abbreviations and so on, and notes on how it is in no means a homogenous type of language, but rather has numerous styles and genres which affect the language and that is is important to separate "the contributions of the medium from those of human users is an important prerequisite to further CMC analysis." (Herring 1996, 3-4)

CMC is notedly popular among researchers. For this, there seem to be two reasons Hubbard (2009): in practice, CMC does not usually involve hours upon hours of transcription - instead, data is gathered "automatically". Furthermore, there are numerous ready-made programs for the purpose of CMC research. Hubbard also notes on the "more natural connection between human-human interaction through CMC and the findings from studies of face-to-face interaction in SLA" Hubbard (2009, 10). This, in turn - and as touched upon earlier when I discussed briefly the similarities between CMC and spoken language - allows for easier contrast between the two and finding out the differences and similarities.

An admittedly general and careful statement is that both CMC and F2F communication promotes L2 learning. Evidence for this is provided by a meta-analysis performed by Ziegler (2016). In her study, she concludes that, indeed, both CMC and F2F seem to promote L2 learning, with small advantages for SCMC - however, there seems to be no statistically significant advantage between SCMC and F2F

and thus she concludes that mode of communication does not seem to matter that much (Ziegler 2016, 554). She examined more than 500 studies relating to the issue, ending up choosing fourteen for the final study according to certain criteria (Ziegler 2016, 562).

Zeng (2017), for example, studied collaborative dialogue in both synchronous computer mediated communication and face to face communication. More precisely, they studied the effect the different modes of communication have on the frequency and nature of collaborative dialogue, coming to the conclusion that learners seem to produce more instances of LREs in SCMC than in F2F interaction, although notably F2F generated more language output. Learners noted on having more time to notice language problems and reflect on their output, something which Zeng (2017) notes has been corroborated by previous studies (Zeng 2017, 268). There were also some differences as to the nature of the LREs: for example, self-correction was higher in SCMC (Zeng 2017, 269).

2.1.2 Face-to-face communication

Speech is at the very core of human communication as it predates written language by a considerable amount of time. It also a special place when it comes to learning and knowing how to use a foreign language. As Alderson and Bachman note in Luoma (2004): "The ability to speak in a foreign language is at the very heart of what it means to be able to use a foreign language. Our personality, our self image, our knowledge of the world and our ability to reason and express our thoughts are all reflected in our spoken performance in a foreign language." (Luoma 2004, ix). It is, then, paramount to understand the peculiarities and the nature of spoken language – of foreign spoken language – to be able to truly contrast it with CMC language. Luoma (2004) considers what is special about spoken language. As people tend to make judgements, both conscious and unconscious, of others based on their speech,

how learners speak and express themselves via spoken language is no trivial matter (Luoma 2004, 9-10). Here pronunciation also plays a large role: learners might, for example, be afraid of sounding foreign due to their accent. In turn these perceptions and knowledge of them might affect the speakers language to a varying degree and is something to be considered when conducting research and analysing data and results.

A distinction that is often made, especially when it comes to the school setting and assessing speaking and foreign language speaking skills, is between planned and unplanned speech. As the name quite aptly suggests, in planned speech the speaker has prepared and rehearsed their speech event ahead of time. With unplanned speech this situation is reversed: the speaker has no time to plan, and speech happens in the spur of the moment (Luoma 2004, 12-13). Luoma (2004) furthermore notes that in planned speech the language is more written like with longer sentences and more complex grammar Luoma (2004, 12), while in unplanned speech short, incomplete sentences are more common (Luoma 2004, 13).

2.2 The interaction approach to language learning

As previously established, the goal of this study was to analyse learner language in task solving situations in two modes of communication - how do learners negotiate for meaning and collaborate when trying to reach a mutual goal. Furthermore under scrutiny was the effect the mode of interaction has on the language and the learner and the way they interact with other people while solving a task. What underlies all this is interaction and communication and so, to properly understand what happens in learner language in interaction, it is vital to take a look at how interactionist theories understand and view language learning and language in general, and what kind of studies have been done in the past.

At the root of interaction approach is the notion that language learning is driven

by communication. Not only does a learner need sufficient input and output - i.e to hear the foreign language and the chance to get to speak and produce it - but also feedback on their production; something they can mostly get through interaction (Gass and Mackey 2006, 6). In the language classroom, such opportunities - where learners get to "perceive, comprehend, and ultimately internalize L2 words, forms and structures" (ibid.) - are best awarded through communicative tasks. That is, through interaction, when the learners share ideas and collaborate, not simply producing language for the sake of it.

Learners need to be exposed to the target language - a universally given fact (Mackey 2013, 9). With the concept of input, any form of target language regardless of medium is referred to, such as media like listening to speech or observing the signs in a sign language. The interaction approach further posits that learners also have to understand this input. As such, while the medium of language does not matter, it has to be understood - meaning that the requirement for learning is not just input but comprehensible input (ibid.). This is the crux of the Input Hypothesis which posits that a learner that has access to comprehensible input and whose affective filter is low, meaning they are both motivated to learn and nothing is distracting them (Ellis 1999, 5). According to Krashen, the progenitor of this hypothesis, interaction is one of three methods for learners to access comprehensible input, in addition to someone simplifying the input and the use of context to help in decoding the input (ibid.).

Even still, comprehensible input alone is not sufficient for language learning. A factor, also, is how learners interact with the input and in turn with their interlocutors (Mackey 2013, 10). In this regard, the important concept of scaffolding is brought to the forefront: how more advanced learners can, for example, help less skilled learners to learn and output language that could be considered above their skill level. Another concept crucial to what is needed for optimal language learn-

ing is agency. It is defined as a person's will and capacity to act (Gao 2010,) or as their capability to make both make and act on choices that affect their lives in some manner (Martin 2004, 13). For language learners, having agency is thought to be important as for them to manage their own learning and regulate emotional responses that language learning evokes, the learners need to be both aware of their own agency and believe that they can express it (Bown 2009, 580).

A final critical concept in the interaction approach to language learning is output. The Output Hypothesis arose when it was shown that even several years of time spent in a highly input-rich environment, the language of certain students of French still deviated greatly from what could be described as native-like language (Swain 2005). It posits, then, that in addition to comprehensible input, learners also need to actually produce the target language (output) in order to learning to happen. Swain (2000, 99-100) offers several reasons for this phenomenon: output, potentially, requires more effort on part of the learner, as it requires complete grammatical processing to be understood and to produce accurate language. It also pushes the learner to potentially go beyond their interlanguage, and discover its scope and limits. Learners' output has the potential to reveal some of the - perhaps erroneous - hypothesis they have of the L2. In producing language, learners also can test hypothesis they have - experiment and see how the language works along with noticing gaps in their knowledge: between that which they want to say and that which they can actually produce in the target language (Swain and Lapkin 1998, 129-130).

Like in the case of input, however, it is not simply any arbitrary kind of learner-produced language that research in the interaction approach is interested in but, rather, something that is usually referred to as modified output. Similarly, for the purpose of the present study it is modified output - in combination with aforementioned negotiation, feedback and collaborative dialogue - that is in the centre of

interest. Modified output occurs when a speaker modifies their utterance in some way in reaction to feedback from another speaker (Mcdonough 2005), in an attempt to correct language that has been perceived as problematic (Sheen 2008, 841).

Finally, Interaction research has revealed some important issues that should be considered even in the present study. Shehadeh (2004), for example, studied the emergence of opportunities for modified output and their uptake by a group of L2 learners of English (N=32). The participants solved a decision-making task in both groups and dyads. He concluded that while in his study there seemed to be more opportunities for modified output during pair interaction, learners tended to actually modify their output in response to these opportunities more frequently during group interaction. This, he predicts, might be because the chance of being misunderstood or being unclear is affected by the number of interlocutors. While this might not have a critical effect on the present study, it is still something that should be considered.

2.3 Negotiation of Meaning

In interaction research, there are two concepts that, at first glance, can seem to be nearly synonymous: negotiation of meaning and collaborative dialogue. They do not mean the same thing, however, and cannot be quite used interchangeably. The following sections will define these two terms as well as explain how they will be used for the purpose of the present study.

Negotiation of meaning arises when interactants experience difficulties in understanding or being understood. It is a concept that is tightly tied with the notions of input and comprehensible input: when there is a communication difficulty, input has to be modified to be comprehensible and to suit the needs and level of the learner - which, as we have seen, can potentially facilitate learning. There are several ways in which those participating in a conversation can negotiate for meaning, such as

confirmation checks, comprehension checks and clarification requests (Gass 2013, 350). For example, 'so you mean to say...?' acts as a confirmation check, 'Are you still following what I am going for?' acts as a comprehension check and 'Excuse me, what was that?' acts as a clarification request. Often, they seem quite explicit and should be readily observable in data.

Swain (1985) describes negotiation of meaning as a process where learners are pushed to modify their output when a communication breakdown occurs. This breakdown is signalled by a clarification or a confirmation request (ibid.). One of the interests of the present study was how learners engage in negotiation in the two differing media. In other words, how were communication breakdowns signalled and noticed and how did the learners go about initiating the negotiation process and fixing the breakdown in understanding. Moreover, how did this process differ between different modes of communication - in this case, spoken language and written language. Mori (2005, 158) divides this process into trigger (part of language that causes the breakdown), signal (for example, a clarification request from another learner), modified output, and uptake, which can be either successful or unsuccessful depending on whether the learners have understood each other. It follows that these are the parts of language that would work well in analysing how learners take part in negotiation of meaning.

With regards to differing modes of communication and more specifically the mode of synchronous computer-mediated communication, Van der Zwaard and Bannink (2016) offer relevant evidence as to the occurrence of negotiation of meaning. Namely, in their study of 32 participants consisting of both native and non-native speakers, they found that despite there being cases of misunderstanding, the participants frequently did not partake in meaning negotiation (Van der Zwaard and Bannink 2016, 625). Rather, they chose to feign understanding. Some participants cited not knowing the person they were talking with and wanting to be nice, along

with the desire to not seem stupid to their conversation counterpart (Van der Zwaard and Bannink 2016, 635). As such, there might not be an issue of mode but rather of familiarity. There is also the possibility that it is easier to feign understanding when not face-to-face with the interlocutor.

2.4 Collaborative Dialogue

The concept of collaborative dialogue is closely tied with that of sociocultural theory. The premise of sociocultural theory is that language is in essence social and comes to being through interaction - a originally Vygotskian idea of language (Gutiérrez 2006). According to Vygotsky, cognitive development first appears on the social level before it is appropriated on an individual level (Vygotsky 1980, 57). In addition, it is notable that this approach differs from other cognitive theories of learning: rather than thinking that language originates in an individual's mind, it is regarded as social - again, a Vygotskian view of language. This, then, has some implications for the language classroom as noted by Gutierrez (Gutiérrez 2006, 232): essentially, language teaching can be seen as a highly interactive action where learners collaborate not only with their teachers but also each other, and in the process reach higher levels of learning than what would have been possible alone.

Collaborative dialogue is, to put it simply, dialogue in which learners work together to solve linguistic problems and/or co-construct language or knowledge about language" (Swain, Brooks, and Tocalli-Beller 2002, 171). Swain describes it as knowledge-building dialogue and, in the case of second language learning, "dialogue that constructs second language knowledge" (Swain 2000, 97). She brings up the notion of "language mediating language" and argues for the slight differentiation of collaborative dialogue from the traditional concepts of comprehensible input and/or output (ibid.). The output, or dialogue, becomes a tool with which language is mediated. As Swain (2000, 113) summarises it, when participants collaborate in

an activity their speaking mediates the collaborative effort: "as each participant speaks, their saying becomes what they said providing an object for reflection.". New knowledge is constructed through this, when reflection happens on what was said. In this manner - as Swain also notes - not all dialogue is knowledge building, as there can exist dialogue where this aforementioned process does not happen.

For the purpose of studying instances of collaborative dialogue, Swain and Lapkin (2013, 287) use the concept of language related episode or LREs that emerged from the data of their study. They defined it as "any part of a dialogue where students talk about the language they are producing, question their language use, or other- or self-correct their language production" (Swain and Lapkin 2013, 104) As is readily apparent, then, LREs are just parts of dialogue where language that fills the description of collaborative dialogue, as discussed above, happens.

Collaborative dialogue has been successfully used in examining learner language – and, more specifically, the process of learners learning the language – in numerous studies. Amirkhiz et al. (2013) studied collaborative dialogue in writing tasks. Their subjects (N=8) were two dyads of EFL (English as a Foreign language) learners and two dyads of ESL(English as a Second Language) learners. These dyads were given 15 collaborative writing tasks. Amirkhiz et al. (2013), too, chose to use LRE's as their unit of study, in a similar fashion to Swain and Lapkin (1998) and Swain and Lapkin (2013). In their data, Amirkhiz et al. (2013, 476) differentiate three different types of LREs : Form-oriented, Lexis-oriented and Mechanics-oriented. Any LRE dealing with grammatical accuracy, such as form and tense of a verb, articles, prepositions, linking devices and word order were categorized as Form-Oriented. On the other hand, episodes of language where word choice, meaning, or alternative ways to express something was discussed were categorized as Lexis-Oriented. Finally, episodes having to do with pronunciation, spelling or punctuation were then categorized as Mechanics-Oriented (ibid.). While the present study differs in many aspects

to Amirkhiz et al. (2013), comparisons between their and the LREs that emerged in the present study's data could still prove interesting to a degree. In analysing LREs from both groups of dyads, Amirkhiz et al. (2013) noticed a certain discrepancy between the EFL and ESL learners. Namely, the EFL learners tended to concentrate more on meta-linguistic features, as opposed to the more communicative tendencies of the ESL learners (Amirkhiz et al. 2013, 477). According to them, another study has also reported such a tendency. They state that, given that most things were equal between the dyads, there are two possibilities as to this discrepancy: the status of English in the learners' home countries, or their previous language learning and educational history.

This section has attempted to give a brief overlook of the basic principles overlaying interaction, input and output that are at the center of the present study. I have explained how for optimal language learning to happen, learners need both comprehensible input and they have to engage and think about the language they output. Such opportunities most often occur when communication breaks down and learners have to negotiate for meaning: in other words, they have to either request others to make their language more comprehensible through, for example, clarification requests or modify their own output in instances where they are not being understood. The overlaying theme has been interaction and the next section will take a more thorough look on how interaction can be studied and analysed.

2.5 Interaction in discourse

2.5.1 Conversation analysis

Conversation analysis is, simply put, analysis of human conversation and, more specifically, the organization and orderliness of social interaction (Liddicoat 2011, 7). While there is traditionally an assumption that this interaction is "actual talk

in actual contexts" (Liddicoat 2011, 8) – something that the interaction contexts of the present study are, perhaps, not – the tools it offers for analysis can still be applied to these not-so-natural situations. As the present study is interested in learner interaction - that is, learners having a conversation in an attempt to come to an agreement on a task they have been provided with - conversation analysis seems like an appropriate tool to reach this goal. Next, an effort will be made to discuss conversation analysis and the aforementioned tools in order to lay a framework for the present study's data analysis.

In conversation analysis, the data is not studied because it says something about the surrounding societal context but because it is an instance of that context, something called specimen perspective (Liddicoat 2011, 67). Furthermore, as Liddicoat (2011, 69) notes, the analysis usually does not begin with a set research question. Here, again, the present study differs from the traditional approach but, as has been noted previously, this is not that significant because rather than being actual conversation analysis, the present study merely draws on its tools to reach its goals. As such the why of it is not nearly as important as how, although it still behooves to take a look at the reasons and logic behind the theory.

Ten Have (2007, 121) also mentions the idea that CA should be started from the data, not the investigators ideas about the data. However, he also notes on how there is no one best way to to do CA and as such I argue that the present study deviating from this "starting from the data" is also acceptable, and that CA regardless offers a set of tools and best practices with which to analyse conversation, be it casual speech between participants who do not know they are being recorded or a group of students solving a task with the knowledge that their performance will be analysed. With regards to these tools and best practices, Ten Have (2007, 120-126) lists a general strategy for conversation analysis, beginning with examining how the interactants take turns in the conversation (turn taking will be discussed in a further

section), followed by describing the sequences that take place and then any possible repair work that is done. With examining how the participants take turns, he refers to how the core of CA is examining and revealing the system that emerges in a conversation for the purpose of turn allocation between participants (ibid.). With describing the sequences that take place Ten Have (2007, 130) refers to the fact how utterances in conversations are organized sequentially so that any one utterance is in response to something said before while at the same time creating the necessary context for an utterance to follow it. For this purpose, the concept of adjacency pairs are mentioned as the instrument of analysis of such sequences (ibid.). Finally, repair work refers to instances of conversation breakdown, as discussed previously with negotiation of meaning (Ten Have 2007, 133). Next, I will take a deeper look at the two instrumental concepts of CA already mentioned here: turn-taking and adjacency pairs.

While Conversation analysis generally has been used to analyse spoken interaction - indeed, the previous examples mostly concern spoken talk - it has also been successfully used in written interaction and CMC. González-Lloret (2011) argued for the inclusion of CMC in the L2 classroom due to its potential for the learners to engage in authentic language use as opposed to the more constrained classroom interaction (González-Lloret 2011, 308). They also argue for the usefulness of Conversation Analysis in studying interaction, and SCMC interaction in particular (González-Lloret 2011, 309-310). In the case of SCMC, they note on CA's ability to describe how conversation is systematically structured. (ibid.), while also considering the limitations CMC has in that in CMC the actual turn construction is not accessible to anyone else than the turn constructor without special methods. However, as González-Lloret (2011, 317) argues, whether this is an actual limitation depends on the subject of study. I am inclined to agree with this sentiment, and further argue that, given CMC as a system fundamentally differs from spoken

conversation, as can be seen in a section further on, it merits examining in its own right and not only as a more limited version of spoken conversation. Furthermore, if the turn-construction component is needed, it can be quite easily accessed even in CMC, as can be also seen in a further section.

2.5.2 Turn taking

One of the clearest parameters by which the present study's data will be examined is the amount of turns a participant takes and how these turns change between the interactants. The following section will examine this concept, turn taking, and how past research has utilized it. Being that turn taking is quite vital indeed to the present study, a greater amount of time will be spent in its examination. Some possible models of turn taking will be first examined, along with giving an overview of the concept. This will then be followed by examining the different components of turn taking.

Crookes (1990, 185) defined a turn as one or more lengths of speech that is given boundary by lengths of speech of someone else. In other words, a turn is defined as speech occurring in a conversation and is usually followed by another turn. This seems like a simple and useful definition, though as noted by Markee (2000, 69) it accounts poorly for overlapping speech, which is plentiful especially in spoken conversation: by Crookes's definition a turn would end when someone else starts speaking and this does not seem to be the case. As can be seen further on, this fact that turns often overlap with each other has been dealt with in various means. While turns can be seen in isolation as the building blocks of conversation and one of the key interests of the present study, turn-taking, it is more interesting how participants in a conversation deal with who speaks at which time and what happens when turns overlap. Turn-taking, then, refers to the way interactants in a conversation allocate turns to each other or, as Sidnell (2010, 36) phrases it, to

the system of how opportunities to participate are distributed. Liddicoat (2011, 80) describes turn-taking as socially constructed behaviour: it happens in situ and there are no set rules that are imposed upon the interactants. This would imply, then, that each turn-taking system is, indeed, constructed as the conversation happens and it is this construction that interests both CA and the present study.

Sacks, Schegloff, and Jefferson (1974) proposed a model of turn taking that consists of two components: turn constructional component and turn allocation components (Sacks, Schegloff, and Jefferson 1974, 700-702). The turn constructional component (or TCU) may consist of various units – for example, lexical, phrasal or clausal units, even sentences (Wong and Zhang Waring 2010, 16) and a turn can consist of several TCU's (Sidnell 2010, 42). In addition, a TCU can act a s a complete turn and also as a possible point of completion for a turn (Wong and Zhang Waring 2010, 17). A point of completion can further act as a place where the transition of turn from one speaker to another is possible, something called transition relevant place or TRP. This transition is signalled by a feature of TCU, it's projectability which allow for interlocutors to work out where a TCU ends and whether a turn has been completed (ibid.). The turn-allocation component on the other hand comprises of techniques which can be further divided into two categories: techniques where the current speaker selects the next speaker, and those in which the next speaker is selected by self-selection (Sacks, Schegloff, and Jefferson 1974, 701). When the current speaker selects the next turn or speaker, they usually indicate this in some manner linguistically, such as mentioning the next speakers name or by aiming their question at the next speaker, for example. In self-selection, on the other hand – as the name might suggest – the current speaker does not specifically indicate the next speaker, but the next speaker instead themselves decide it is their turn.

In the system devised by Sacks, Schegloff, and Jefferson (1974) there also exists a set of ordered rules for turn construction and turn allocation at transition-relevant

places. For any turn, if the current speaker has decided to allocate the next turn to a specific person, that person and only that person has the right and obligation to speak next. On the other hand, if the turn has been constructed as such that current-speaker-selects-next is not involved, then self-selection can be applied. However, this does not have to be the case. Furthermore, the current speaker may self-select themselves to continue if no other speaker self-selects. These rules apply recursively until transfer of turn happens (Sacks, Schegloff, and Jefferson 1974, 702). This feature of the rules being ordered is quite important: for example, a speaker who wants to self-select in absence of the current speaker selecting the next speaker must self-select before the current speaker chooses to continue (Sidnell 2010, 42).

For the most part the facts that Sacks, Schegloff, and Jefferson (1974) list do apply to the present study; namely, those that were mentioned in the previous section can be applied. However, a few of these facts were not listed for the sole reason that they cannot be readily applied to the present study's data. For example, they specify as a fact that the length of conversation is not fixed (Sacks, Schegloff, and Jefferson 1974, 710). This, however, does not hold true for the present study, as in both tasks that the participants did (to be discussed further on) the length – or rather, the time allotted to them – was more or less fixed. This discrepancy in the rules is due to Conversation Analysis traditionally, as was discussed previously, being applied to naturally occurring talk instead of an 'artificial' situation such as the present study's. This, however, should not matter greatly in applying the framework for analysing the data, although it might affect what the speakers say and how they say in some manner that would be advisable to take into account. That conversation length is not fixed is the only 'fact' that does not wholly apply, however, there is one more that could be thought not to apply from a certain perspective; the fact that 'what parties say is not specified in advance' (Sacks, Schegloff, and Jefferson 1974, 710). Indeed, in the present study the actual turn content of the speakers is not

determined beforehand, however, their topic and thus the scope of their turns is in some way limited to the task they were given. Sacks, Schegloff, and Jefferson (1974) note that there is nothing in the rules they described that restricts the content of the turns, and as such this, again, should not cause any problems in the present study.

As was previously mentioned, there are several ways or techniques with which a speaker or the conversing group may allocate turns or decide who takes the next turn. It was also determined that these techniques generally tend to fall into two categories: 'current speaker selects next' and 'self-selection. Already a brief look was given as to how 'current speaker selects next' works in practice – by, for example, the current speaker aiming a question to the next speaker or mentioning their name – and how any speaker can technically select themselves as the next speaker if no clear selection was made by the current speaker. For the purpose of the present study's data analysis, however, it bears to examine these techniques in more detail.

The so called addressed question that was used as an example previously is only a case of a wider category of types of utterances that all share the property of possibly selecting the next speaker, called 'adjacency pairs' (Sacks, Schegloff, and Jefferson 1974, 716), a term already previously introduced.. In essence, adjacency pairs describe a pair of utterances the first of which sets the scene for the second part, in other words the first part constrains what can follow. For example a question requires or expects and answer to it, typically from the person the question was directed at (if it was directed at some specific person) (ibid.). However, it is important to notice that the first pair part does not inherently allocate the turn to the next speaker and as such the use of such a device does not necessitate the selection of next speaker: next-speaker selection only happen when combined with, for example, an address term such as directly using another interlocutor's name (Sidnell 2010, 46). Another strategy, that can be used as an exit strategy of sorts, is

the affiliation of a tag question into the turn (Sacks, Schegloff, and Jefferson 1974, 718). This makes it possible to transform any turn into 'current selects next' , or make the turn effectively the first part of an adjacency pair. Sacks, Schegloff, and Jefferson (1974) note that this strategy is of special importance, explaining that it enables a speaker to exit their turn in a situation where they have not, initially, constructed their turn in a matter where a next speaker is selected. According to them, the tag question is, thus, a member of a class called 'recompleters'.

As noted before, the other category of turn allocation techniques is called self-selection, which occurs if the current speaker does not explicitly select a next speaker. There is a motivation for a self-selector to start as early as possible to ensure that they get the turn, as often in cases where several speakers self-select, the one who started first gets the turn (Hayashi 2013, 173). In the system of Sacks, Schegloff, and Jefferson (1974), the most basic technique of self-selection is simply 'starting first', as can be induced from the rule stating "first starter gets the turn". A common strategy in this regard are so called appositional beginnings such as 'well', 'but', 'and', 'so' (Sacks, Schegloff, and Jefferson 1974, 719). These are classified as turn-entry devices or 'pre-starts' in contrast to tag-questions' function as exit devices or 'post-completers' (ibid.). With regards to the potential overlap that can happen when several speakers self-select, these appositional beginnings can provide a device with which to start a turn without potentially sacrificing important information regarding the content of the turn in cases where overlap impair the interlocutors' ability to hear correctly (Hayashi 2013, 174). There also exist some techniques for so called second starters – those who have not managed, in essence, to fulfill the first-starter provision of selecting oneself as the next speaker. These, however, generally depend on the utterance being of certain type – as Sacks, Schegloff, and Jefferson (1974, 719) illustrate, addressing a problem in understanding something that was brought up in a previous turn tend to take up priority over everything

else and thus, when such an utterance occurs even well after someone else has self-selected themselves as the next speaker in a valid manner, the speaker who has such a problem in understanding is likely to get the turn even though they did not self-select themselves in time.

Finally, then, it is of importance to describe what exactly could be thought to constitute a 'turn' be it in Conversation Analysis or other similar theories. Sacks, Schegloff, and Jefferson (1974, 720) note that their system is for the purpose of analysing the language of conversation. They identify the units that construct a turn as syntactical; in other words sentences, clauses, phrases or one-word constructions (Sacks, Schegloff, and Jefferson 1974, 721). However, intonation also tends to play a role, as any sound can effectively be made into a one-word-construction using the right intonation (Sacks, Schegloff, and Jefferson 1974, 722). With regards to syntax, they also note that the transfer of a turn seem to recur discretely as the turn progresses. The places that turn transfer happens are called transition-relevance-places, and they seem to occur at possible completion points of the syntactical elements mentioned previously (ibid.), thus making syntactical elements the logical construction pieces of a turn. The notion of a turn consisting of nearly any kind of syntactical element is quite broad, admittedly, and like is the case in the present study where intonation is not marked in the transcription of the data, possible turn transfers using such one-word constructions can prove difficult. At the same time it is good to note that while there is potential in basically any linguistic unit to be used as a construction unit for a turn, these units are always context-specific (Liddicoat 2011, 84). As such, lack of precise transcription or annotation should not prove overly problematic as such one-word-constructions can be fairly easily identified as turn-transfer units in the context of the talk.

2.5.3 Turn-taking in CMC

In the previous section of turn-taking, a strong assumption on the communication between the participants of the talk being spoken was made. Research suggests that when CMC is done via audio, the turn-taking rules that Sacks, Schegloff, and Jefferson (1974) introduced can still be applied without issues (Suggs, Dennen, and Myers 2013) but that written CMC requires some modification (Suggs, Dennen, and Myers 2013; Garcia and Jacobs 1999). As spoken conversation and computer mediated conversation differ greatly, it is not surprising that this seems to be the case. The following section will introduce a system of turn-taking modified for the purpose of textual CMC and also discuss how turn-taking in textual CMC has been studied.

Garcia and Jacobs (1999) compared the turn-taking systems between computer-mediated communication and oral conversation, presenting a comprehensive system for turn taking in CMC. They note at first that both modes have a locally managed turn-taking systems - the turns are not predetermined in any way but negotiated in context - but that they differ in that in CMC, the participants cannot completely control the placement of their turns within the conversation (meaning others might post their own message before another has finished theirs), nor can they, for example, complete an utterance another participant started because the whole turn is completed and posted as a whole (Garcia and Jacobs 1999, 346). These differences have been echoed by Schönfeldt and Golato (2003) who also emphasise that it is a whole complete message that the others see and any edits that have been done in the message construction are invisible to the other interlocutors (Schönfeldt and Golato 2003, 244). What is also lacking in written CMC is any competition for the right to post a message or, indeed, take a turn, as in most settings all messages will be posted (Schönfeldt and Golato 2003, 248). Next, I will describe in more detail how elements of the turn-taking system previously introduced in the present study

differ in written CMC.

Garcia and Jacobs (1999) distinguish several roles that participants can play in a CMC conversation: message constructor, message poster, waiter, reader and worker. Most of these seem quite self-explanatory: each participant can both construct (in other words, write) messages, send them and read them as they are posted. A participant is a waiter when they are not reading or writing a message, but instead are waiting for someone else to post a response or a message. Finally, a participant can have the role of a worker if they are doing some non-screen activity such as reading papers (Garcia and Jacobs 1999, 347). Furthermore, they note that each participant can play several roles simultaneously: something that does not happen in oral conversation (ibid). Role also affects the way each participant perceives messages chronologically: the sender of each message sees that message in real time, but the recipients, however, only experiences the sent message. The actual construction of the message is silence to them. (ibid). This, of course, has several implications: for example, the sender cannot be certain at any one time that everyone has received their message, and messages can often be placed far away from the message it was a response to. (Schönfeldt and Golato 2003, 244).

In a previous section, the turn-taking system as described by Sacks, Schegloff, and Jefferson (1974) was discussed along with how turns are usually constructed in (oral) conversations and where turn-taking in conversation takes place. Here, Sacks, Schegloff, and Jefferson (1974) identified such places as transition-relevance places. According to Garcia and Jacobs (1999), these transition-relevance places are not located in the same places as in oral conversations, and they also play a different role (Garcia and Jacobs 1999, 350). Namely, as the other participants in a CMC conversation (aside from the message constructor, that is) do not see the process of constructing the message they in turn cannot anticipate the end of that turn unlike in spoken conversation where listeners can anticipate when a speaker is about to be

done (ibid.). As such, while messages in written CMC can contain multiple TCUs, they do not constitute a transition-relevance place (Schönfeldt and Golato 2003, 248). Instead, this role is taken by the completed, sent message, instead (Garcia and Jacobs 1999, 350). Further, Garcia and Jacobs (1999) suggest that what exactly is transferred at these places differs between the two modes: in oral conversation it is speakership but in CMC it is rather the opportunity for a participant to start typing a future message. As such, they note, it could be said that there are no transition-relevance places in CMC conversation but that participants usually at least attempt to treat posted messages as such (Garcia and Jacobs 1999, 351). This could be expected to cause potential confusion in a participant who attempts to directly extrapolate the rules of spoken conversation to CMC as the turn or speakership is not transferred similarly.

The final part of Garcia and Jacobs (1999) CMC turn-taking system is the turn allocation component. The turn allocation component consists of the ways the participants of a conversation allocate turns and decide who speaks next, as discussed in the previous section on Sacks, Schegloff, and Jefferson (1974) system for turn allocation. Here, too, Garcia and Jacobs (1999) note that each of three ways in which a next turn can be allocated differs in CMC conversation as compared to oral conversation. This is mostly due to the different temporality of the mode, and the fact that, according to Garcia and Jacobs (1999), what is being allocated by the participants in the CMC task is not the next speaker but rather positions on whatever platform the messages are being sent to. In other words, instead of next poster or speaker, a future speaker or poster is selected and accordingly, the turn allocation options (Current Speaker Selects Next, Next Speaker Self-Selects, Current Speaker Continues) as described by Sacks, Schegloff, and Jefferson (1974) need to be adapted. As such, Current Speaker Selects Next becomes Current Selects Future poster: even if current speaker uses the first pair part of an adjacency pair

to select the next speaker the next one to post might not be the one current speaker designated with it. Indeed, Garcia and Jacobs (1999) note that often adjacency pairs in CMC are not adjacency pairs but something they call phantom adjacency pairs (Garcia and Jacobs 1999, 354): utterance pairs that look like adjacency pairs but are in fact not. Such a disjoint in turns could be a potential cause of problems between the interactants but as shown by Nilsen and Mäkitalo (2010), only minor difficulties seem to occur due to disjointed turns, with the participants quickly after the start of the conversation learning how to effectively deal with them (Nilsen and Mäkitalo 2010, 101).

Next Speaker Self-Selects also functions differently in CMC (Garcia and Jacobs 1999, 356). This is due to there being no motivation to be a first starter, as there is no special meaning or significance in being the first to start typing in a CMC conversation and no one even has the ability to tell who started first (ibid.). Even if a participant starts typing first in a transition relevant place, there is, again, no guarantee that they are able to finish first and post their message before anyone else. There are ways one can raise their chance of posting first, Garcia and Jacobs (1999) note, by replying as quickly as they can, posting only a brief message, or dividing a longer message into two (ibid.). Similarly to Current Speaker Selects Next, Next Speaker Self-Selects becomes Future poster self-selects. Garcia and Jacobs (1999) remark on two aspects of this option: that some participants seem to design their message specifically so that they can be understood in a context different than the message they intended to reply; and that if the messages the self-selectee posts gets posted far away from the message they replied to, there is potential for readers to misunderstand self-selectees message. This can cause disruptions in the talk.

Finally, Current Speaker Continues also has some issues in CMC conversation. According to the findings of Garcia and Jacobs (1999), the fact that the current speaker (at the time) has selected themselves to continue might not be "visible"

to the other participants in instances where the continuing self-selector does not manage to post their message right after the first one but instead appear as one of the other two turn allocation options. Further, Garcia and Jacobs (1999) remark upon the role silence plays in the current speaker continuing: in written CMC, moments of silence can be interpreted as an opportunity for Current Speaker Continues, even if it means that someone else is composing a message in reply to current speaker's previous message. However, this does not prevent the one who was composing a message from continuing their composing and posting a message, unlike in spoken conversation where the current speaker continuing would prevent everyone else from taking a turn (Garcia and Jacobs 1999, 359). Suggs, Dennen, and Myers (2013) also discuss the role silence plays in CMC in particular. However, their findings were greatly setting-specific: in other words, applicable only in a situation where speakers communicate simultaneously through an audio channel and a chat channel. According to them, silence allows for a current speaker to think and indicate that their turn is yet to finish, especially if occurring mid-sentence. However, moments of silence were also crucial in allowing other speakers to enter the conversation if they were just arriving in the chatroom or audio channel, as well as allowing the current speaker to see if other speakers were willing or about to take the next turn (Suggs, Dennen, and Myers 2013, 318). Further, they also consider the role silence plays in non-participation.

Markman (2005) echoes what Garcia and Jacobs (1999) presented regarding differences between turn-taking in CMC and spoken conversation: how the construction of the turn and the actual turn taking are separate and how several speakers can have the floor simultaneously, at least in theory. He studied the turn construction process of a single member of group of six students taking part in a team communications course as they held a meeting via a computer software chat (Markman 2005, 117). The participant's turn construction was accessed by recording what was

happening on their screen and thus allowing one to see how each participant constructed their turns similar to a spoken conversation where turns are constructed in real time. Their findings corroborate the existence of false-adjacency pairs that, according to Garcia and Jacobs (1999), seem to occur in CMC conversation settings (Markman 2005, 118). He also found that his subject of interest rarely reformulated their turns in response to the other participants' messages (Markman 2005, 121). Overall, this method of accessing the turn construction process through some means of recording seems to be quite useful and wallows for more in-depth analysis and direct comparison to, for example, the turn construction of spoken language.

How participants adapt to the different turn-taking system in CMC has also been a point of interest to researchers. Anderson, Beard, and Walther (2007) studied this using a system which attempts to simulate a real-time spoken conversation by showing each participant's messages were transmitted keystroke-by-keystroke. The participants were three undergraduate students assigned a task-solving problem. Data was collected by videotaping a computer terminal which displayed the three students' interaction.(Anderson, Beard, and Walther 2007, 6). These data were transcribed and then used to analyse the locally managed turn-taking system that emerged. In such a system, according to them, participants seem to successfully adapt strategies commonly used in F2F conversation, even though the resulting turn-taking system appears systematically different (Anderson, Beard, and Walther 2007, 15). In summary, turn-allocation was most commonly done by self-selection and the turns consisted mostly of complete, grammatical sentences, with overlap between turns happening quite often, unlike in F2F conversation. This echoes the previous discussion on how CMC turn-taking modifies the existing turn-taking rules for spoken conversation.

Mckinlay et al. (1994) studied turn-taking and the effect of protocols designed to manage turns on CMC group tasks. Their setting had three different protocols with

which turn-taking was monitored and managed: free-for-all where the participants' ability to send message and manage turns was not externally constrained; request-and-grant where only one participant could communicate at a time and turns had to be requested by a signal; and request-and-capture where participants were able to capture the turn to themselves at any time with a press of a button (Mckinlay et al. 1994, 388). The 45 participants worked in groups of six or three, and their task was to work towards a group consensus on the matter discussed - quite similar to the present study. For each task, a score of how quickly consensus was reached was calculated, with the assumption that a quick consensus corresponds with there not having been problems with turn taking. A face-to-face setting was used as a control, and this was the setting in which the participants reached a consensus the quickest. Out of the three CMC settings, the one that resulted in the best score was request-and-grant (Mckinlay et al. 1994, 390). Mckinlay et al. (1994) suggest that this method of controlling turn assignment most closely imitates the conditions of face-to-face interaction, closely resembling the structure of a polite conversation (ibid). Further, they note that this suggests that transferring turn-taking skills from the F2F context to the CMC context is not easy and without issues, as even the best performing CMC setting fared worse than the control.

What is more relevant to the present study are the findings Mckinlay et al. (1994) presented for the second-best performing CMC setting, free-for-all, as the present study did not control message sending and turn-allocation in any way, resulting effectively in the CMC task being a free-for-all where any participant could write and take a turn whenever they felt appropriate. In their study, Mckinlay et al. (1994) observed that in the free-for-all CMC setting the participants at first had some difficulty establishing structure to the conversation but that as it progressed "a form of structure emerged, which exploited the medium's potential for simultaneous communication in a specific fashion." (ibid.). This structure, it seems, is one where the

participants wrote their message and only then stopped to read what the others had written, resulting in what Mckinlay et al. (1994) call delayed action turn-taking (Mckinlay et al. 1994, 390). It would not be an unreasonable assumption to expect something similar to happen in the present study. However, it also bears to notice that the study of Mckinlay et al. (1994) is quite dated and some of their analysis does not transfer to the present time - especially their occasional emphasis on how great a factor the participants' unfamiliarity with the CMC was to their performance. While it is altogether possible that even today people are less familiar with communication via computerised methods as opposed to face-to-face communication, it is reasonable to expect that most university students would have ample experience in talking via a computer chat of some form, even in groups. In spite of this, they also raise relevant points regarding the differences between F2F and CMC turn-taking: CMC, for instance, lacks the contextual cues, both verbal and non-verbal, that provide information in addition to the message being delivered (Mckinlay et al. 1994, 384).

On the topic of managing turn-taking in interaction, Hancock and Dunham (2001) showed that CMC task settings that lack an explicit way for the participants to mark their turns in some manner hinders the participants performance in the task. They suggest that without this explicit marker for turns, the cognitive burden is increased as the participants attempt to monitor the turn structure. In this sense, their findings seem to corroborate those of Mckinlay et al. (1994) and thus it seems that CMC task settings benefit from some type of turn management system for the participants. Unfortunately, such a system is often required to be produced artificially and is not inherent to many chat systems, especially those in everyday communication use. As such, I argue that the lack of such a system is not an inherent flaw in a task setting but rather imitates so called real-life scenarios and environments more closely, making it potentially feel more familiar to the

participants. Further, whether the participants notice the difficulty of managing turns in such a setting also poses and interesting question and avenue of research and examination.

So far, I have briefly introduced the two different modes of communication: face-to-face communication and computer-mediated communication, and what makes them unique and different to each other. I have also described the method of analysis the present study used to analyse the gathered data, Conversation Analysis. In addition, the system describing how participants in conversation construct and allocate turns between each other, as first introduced by Sacks, Schegloff, and Jefferson (1974) was also examined, along with how such a system needs to be adapted when studying computer-mediated communication. For this, the system described by Garcia and Jacobs (1999) seemed fitting for the present study. Furthermore, some related work on how CMC conversations have been analysed and studied were explored. Next, the final important component of the present study will be looked at. That is, what are tasks and how does task design affect learner output in task-solving situations.

2.6 Task design and its effect on learner output

Finally, this section will examine the effect task types and structures have on learner output and aims to answer the following question: how, if in any fashion, does task design affect learner output in various test situation, be it in language learning environment or when gathering data for the purpose of scientific study. As the current study relies on learner output in task-solving situations, this is an issue that warrants some consideration. Numerous studies have been done on task design, and the following section will discuss a number of them to provide evidence that task design has an impact, as well as provide a background to the decisions regarding the current study's use of task discussed in further sections.

2.6.1 Task classification

A task has been defined in various ways throughout second language acquisition research. Bygate, Skehan, and Swain (2001, 11) define 'task' as follows: "A task is an activity which requires learners to use language, with emphasis on meaning, to attain an objective ". Long (1985, 89), on the other hand, defines a task, in general, as work that a person undertakes for some reason. Nunan (2010, 137) notes on this being a so-called real-word or target task definition, describing what a learner does with the language outside of the classroom. He also differentiates this from a pedagogical task, which describe what the learners do with the language inside a classroom in order to, in essence, learn the language and better their language skills (Nunan 2010, 138). While separated from real-world tasks, an important point is that pedagogical task should still have some connection to a comparable real-word task (ibid.). Van Den Branden, Bygate, and Norris (2009, 8) note that while L2 research has used tasks in a variety of topics, a majority of it has been oral tasks, with reading and writing used far less often. The current study uses both oral and writing tasks, and the writing task does also involve reading what the other participants write as their turns appear on screen. Furthermore, Van Den Branden, Bygate, and Norris (2009, 8) go on to note that often the same kind of task types have been recycled (task types that will be discussed a little bit further on), commenting on the possible negative impression this habit gives to the outside world. Their point in this seems to be that overusing and recycling can appear lazy and that researchers seem unwilling to develop new tasks. I argue, however, that recycling task types that have been deemed good and working has its place, especially in studies where scope and resources are limited such, like was the case in the present study.

Mackey (2013) discusses tasks and their different types in some detail, although within the context of task-based language teaching. However, as the present study

uses tasks taken from such context, her discussion is still relevant and should be taken into account. She introduces several different types of task that are usually used in SLA research: "one-way and two-way tasks, closed and open tasks, and focused and unfocused tasks" (Mackey 2013, 59). These are briefly discussed in the following, as well as their potential effects on learner output as noted by Mackey (2013). It should be noted, of course, that the different types do not exist in a vacuum and a single task can be of several types. As such, any straightforward conclusions as t the effect a type has on output and other related matters can be difficult to draw.

First, I will examine the different types of tasks. In a one-way task information flows from one person to another. An activity where a student describes a picture to their peer, without the peer seeing the picture, is a one-way task. It follows, then, that in a two-way task information flows both ways, as the interactants exchange information such as in an information gap task. These two tasks are often seen as existing on the same continuum. A continuum of open and closed task is another one. Here, the openness or closedness refers to its structure and possible 'solutions' to the problem: a closed task is tightly structured and commonly has only a single correct solution, while an open task has a very loose structure and there is no set right answer or a conclusion the participants must arrive at. For example, a task where participants must determine the differences between two similar-looking pictures closed, while discussing a recent event with a group of peers is open Mackey (2013, 60-61).

The distinction between focused and unfocused is not very relevant for the purpose of the current study, as it has more bearing on the learning opportunities it provides for the participants . However, what is greatly relevant is the distinction between convergent and divergent tasks. In a task classified as convergent, the participants are required to come to a conclusion that everyone agrees with. Conversely,

there is no such requirement in a divergent task, and Mackey (2013), indeed, even calls such a task a 'debate' (Mackey 2013, 61). In short, in a divergent task the participants are free to express and assert their own opinion while compromising is required in a convergent task (ibid.).

For the purpose of the present study, then, it is fundamental to examine what kind of an effect – if any – the task type has on output of the participants. Further discussion and evidence is provided later on in this section but here, let us examine the evidence Mackey, and also other research, provides regarding these specific distinctions between tasks previously discussed. First, there seems to be conflicting evidence as to which type of task between one-way and two-way elicits more negotiation of meaning and modified output Mackey (2013, 61). She notes the need for further in-depth research on the matter, and also suggests that the fact tasks do not exist in a continuum and vary in more ways than just the direction of information flow can also explain this confliction (ibid.). She suggests that research shows that negotiation of meaning occurs more in closed tasks while open tasks encourage longer and sustained turns - in other words, more 'data' As to the continuum of divergent and convergent tasks, it is suggested that a convergent tasks elicits more turns in general in the conversation and also more modified output Mackey (2013, 63). Divergent tasks, on the other hand, have greater syntactic complexity (ibid.).

2.6.2 Task effect on learner output: research

This section examines and describes some of the research that has been done on the effect a task's design has on the quality and amount of output learners produce.

In investigating how planning time before a task affects the written performance – or accuracy, to be more precise – of L2 learners of English in Iran, Salimi, Alavinia, and Hosseini (2012) came to the conclusion that planning before a task, both simple and complex, led to more accurate written performance. They studied

50 L2 learners of English, who were supplied both a simple and a more complex version of a decision-making task, and split into two groups: one who had time to plan before the task and one who did not get time to plan. Similarily, Wang and Song (2015) studied the effect of pre-task planning time on oral performance of L2 learners of English in paired oral tests. They also concluded that learners show higher accuracy and fluency when given time to plan for the task, with also greater syntactic complexity when given three minutes to plan. This could be then seen as a prerogative to give learners at least some time to plan their performance. In their article, Pica, Kanagy, and Falodun (2009) discuss methods researchers have used to elicit and gather learner data. They note that traditional methods such as reading, responding to pictures and questions - what they call "structured elicitation (Pica, Kanagy, and Falodun 2009, 171) possibly are not the most optimal and effective for the purpose and instead bring up the concept of communication tasks. The problem with so called 'traditional methods' is that they do not guarantee an active role for the learner nor conditions for negotiated interaction, a subject discussed previously. The premise for the effectiveness of communication tasks lies in theories of language learning that posit that language is best learned through interaction, when exchanging information and negotiating for meaning (Pica, Kanagy, and Falodun 2009, 172). In most traditional data elicitation methods information flow is very one sided whereas in communication tasks the context is such that learners or research subjects actually get to exchange information and negotiate meaning. (Pica, Kanagy, and Falodun 2009, 173). In attempting to find the best communicative tasks, Pica, Kanagy, and Falodun (2009) suggest five different task types: information gap, jigsaw, problem solving, decision making and opinion exchange.

Kim (2017) investigated how task type (and modality) affect interlanguage variation. Kim studied 20 intermediate-level ESL learners of English in USA, with a considerable range of ethnicities and mother tongues. The participants were tested in

three different types of tasks. In pairs, both were supplied with a picture, with minor differences between them and tasked to find the dissimilarities. Then, participants were tasked to choose from 12 items to take on a deserted island and provide a reason for their decision. Finally, the participants - in pairs - had to parse together a story with one learner having the complete story and the other a set of jumbled images (Kim 2017, 223). These three task types were chosen because they are thought to elicit appropriate levels of learner interaction - negotiated interaction - and, in the case of Kim (2017), appropriate amount of language forms that were the focal point of their study. Again, the current study is not interested in accuracy of language but rather negotiated interaction and how learner's negotiate; in other words function over form. As such, the task types used by Kim (2017) would serve well for this purpose.

According to the results of Kim (2017), learner's seemed to produce more advanced question forms via SCMC, Kim (2017) speculating this has to do with SCMC lacking paralinguistic cues such as intonation, and more defined and clear-cut distribution of turns: learner's attempt to avoid being misunderstood by being as accurate as possible in forming their questions. Overall, SCMC seems to elicit more accurate language from learners (Kim 2017, 230-231). This, according to him, seems to be because of the increased time learners have to form their message, and also suggesting that, in absence of the interlocutor, learners try to be as clear and easily understood as possible, in part because they cannot see whether they have been understood or not and thus attempt to assist the receiver as much as possible (ibid). Notable, also is that according to Kim learners seem to have varied knowledge of different language forms such as questions and articles, but don't seem to always apply their knowledge in F2F interaction. They suggest that this might have some pedagogical implications, and that mode of interaction should be taken into account in teaching (ibid).

3 The Present Study

The present study aims to examine learners in group task solving situations, in two different modes of communication. How do learners engage in collaborative dialogue in a group setting? How do they negotiate for turns, and for meaning in the possible situation of communication breakdown? This section will discuss the present study and its data gathering and analysis methods. It starts with introducing the task that was chosen as the main tool for eliciting data, moving on to consider the auxiliary questionnaires presented to the research subjects. Finally, a brief look at the subjects will be taken.

3.1 Research questions

This section will lay out the research questions that that the present study aims to answer, as well as the other general aims 1. What kind of interaction profiles emerge from the data? 2. Do these profiles differ between the two modes? 3. Do the profiles of individuals change between the two modes?

As was established, language learning happens optimally in interaction, as learners engage with other learners and are pushed to produce output and modify it according to feedback they receive - in other words, learners learn the language as they are forced to consider the language they produce. It follows, then, that it is important to discover the tendencies that learners have both in interaction in general and in tasks in particular in order to be better equipped to, for example, construct learning opportunities in school settings. In this way, teachers can ensure that those learners who have tendencies towards being passive can also benefit from interaction opportunities.

3.2 The Participants

Data were gathered from ten English majors studying at a Finnish university. All were taking the same methodology course leading up to their master's thesis and thus can be categorized as advanced learners of English, and participated willingly with the option of opting out of the study. All were also informed that the final data would be handled anonymously and that any personal information was collected only to the benefit of the researcher - to ensure that the questionnaire forms could be smoothly connected to the other data. As the present study uses solely qualitative research methods and focuses on examining the data from a qualitative, in-depth point of view, the admittedly somewhat low number of participants is not a problem. A relatively low number of participants was required considering the scope of the study, to ensure that there is still enough data while keeping the workload reasonable.

The following will break down the background questions the participants to the study were asked. Years spent studying English varied from ten to nineteen. This variance could possibly be on the account of the age differences between the participants, however, as the questionnaire did not require for a participant to mark their age, this cannot be substantiated. Nine reported speaking Finnish as their first language, one marked down both Finnish and English. Considering the number of participants, along with the qualitative analysis nature of the study, I feel no need to exclude this one participant. Rather, they can act as a great point of reference to the other students. It can also be intriguing to see and contrast this person's performance with the others' in that does this apparently native speaker of English significantly differ from the other non-native speakers be it in their amount of participation and their role in the conversation.

3.3 The Interaction Tasks

For the purpose of eliciting data for the current study, the participants performed two tasks in groups of five; one task where they talked face to face, one where communication was done solely via an internet chatroom. Data collection was performed in the spring of 2019. The following will describe the tasks, along with the rationale on choosing them.

For the face-to-face task, the participants were told that they had just founded a country of their own and were tasked with coming up, as a group, a rough constitution for it. In other words, how would the government work, what were the core principles and laws et cetera. They were given no planning time and the task description was kept relatively vague on purpose. A similar task was chosen for the second, computer-mediated task solving situation. For this task, the group was told that they had won a million euros in a lottery of some sort. Their objective was to agree on how to spend this sum. Furthermore, to ensure that discussion would go beyond "let's just divide it amongst ourselves", a limitation was put on how large a sum could be kept: only ten percent could be divided amongst the participants. For both tasks the groups had ten minutes to discuss and come to an agreement. This was determined to be long enough for sufficient data to be obtained. Furthermore, as data gathering was done in the beginning of a course meeting, ten minutes per task was also short enough so that the whole meeting was not taken up.

To contrast the chosen tasks with the discussion on task types in section 2.5.1, both of them can be said to be two-way, convergent and open tasks: in both, the interlocutors have to exchange information and negotiate to come to an agreement, making them, indeed, two-way and converging. Furthermore, there is no single right answer to either of the tasks - there is no single right way to founding a country or dividing up money. These were thought to ensure adequate amount of language

output while also potentially maximising the amount of negotiation of meaning. Being two-way tasks, all of the participants should, in theory, have to participate at least a small amount.

For the face-to-face task a video camera was set up at the front of the room with a clear view of all the participants sitting in a half circle, and the whole task was videotaped. Additionally, an audio recorder was used to obtain an audio recording of the conversation. There were two reasons for obtaining both a separate audio and video recording: the video recording to ensure that in the process of transcribing the turns it would be easier to tell who is speaking, as this could prove difficult with just audio, and the audio recording to ensure clear sound quality, as the video camera was set up quite far from the participants. The obtained speech was then transcribed - or, to be more precise, simply written out - for the purpose of analysis. It was determined that transcription accuracy only needed to reach a level similar to the CMC task's data as as such does not contain accurate hesitation markers, overlap and similar aspects that could be found in a more accurate transcription. Were such features also been available to be obtained in the CMC task - and given more time and resource for the thesis - such a transcription would have been done. For the CMC task, on the other hand, only the completed chat logs were obtained from the software used. The platform, chatzy.com, was chosen because it was free, relatively easy to access and use, and allowed for real-time monitoring of the chat and the ability to export the chat logs in both html and plaintext formats. The chat was monitored in case any problems arose.

3.4 Method of Analysis

In addition to the qualitative analysis, which is the main method of the present study, some quantitative methods were also utilized to account for such things as turn taking and floor holding. In other words, for each group and task the number

of turns each speaker took was counted. Length of turn was also a point of interest, however, since the software used to gather the SCMC data only recorded the time of submission of the messages at the precision level of minutes, it was determined that no worthwhile comparison could be made between duration of turns taken in the F2F task and SCMC. Instead, turn length was operationalised as number of words per turn, and number of words used overall. Naturally some variation is to be expected between the two modes, given the differences between written and spoken language.

To count turns taken per speaker, words used per person and average amount of words per turn, a script was written in Python to do this more or less automatically. As the data from the SCMC task was already in text form, with each speaker indicated clearly and separated by turns, analysing this particular data using the script was straightforward. This was not the case for the F2F task, the data being saved in video and audio format. To ease analysis, and to avoid having to constantly rewind the video and audio back and forth, it was decided that the analysis would behoove of transcribing the F2F data to some extent. As such, the oral conversations were both written out with the speaker indicated first, followed by the content of their turn. Hesitation markers and sounds were taken into account along with any pauses in the actual conversation. Pauses within turns were not timed. Turning the data into text format also enabled the use of the script written to analyse the SCMC data.

For the qualitative analysis methods borrowed from Conversation Analysis were mainly used. Special emphasis was put on turn taking and analysing the turn structure of each task and their talk. Similar approach was used, for example, by Garcia and Jacobs (1999), noting its well-demonstrated utility in studying interaction. As was discussed in a previous section, CA employs observation and observing the phenomena present in the data to draw conclusions and to find out what exactly is

present therein. As such this is the main method of analysis for the present study and the quantitative aspects support these observations that were drawn from the spoken and written data. The basic model used for analysing and observing turn taking was the one described in section 2.4.2 and its concepts for what constitutes a turn were used.

3.5 The Questionnaire

After both of the tasks were finished, the participants filled a short questionnaire consisting of questions regarding their experience and thoughts on the tasks, as well as a few background questions. These background questions were discussed in an earlier section. The questions regarding the tasks were meant to supplement the actual data gathered, and to possibly enlighten some decisions the learner did during the task. As such, they will be used alongside the main analysis. Here, only a brief look into the questions will be given.

The questionnaire was divided into three sections, with the background questions separated from the questions regarding the tasks and with the two tasks separated into their own sections. Both task sections had the same questions, however, for the sake of comparability. All of them were open-ended questions, asking the participant to answer in a brief manner with a sentence or two. The participants were, in essence, asked whether they and their group had any trouble during the tasks – meaning, namely, , whether they had any trouble understanding their interlocutors and what did they do when and if a misunderstanding occurred. Furthermore, a question was also asked if the participant noticed a moment where it was clear that they themselves were not understood and whether they tried to solve the situation in some manner.

4 Data Analysis

The following section will lay out the data gathered from the two interaction tasks, and analysed within the theoretical framework built in section 2. The data for the SCMC task is in html-format, with the name the participant chose for themselves visible along with their message. Also visible in the data are the timestamps for the messages. By contrast, the data for the F2F task is in a video format, with the participating group in frame sitting in a formation resembling a half-circle. Audio for this task was recorded using a dedicated audio recorder to ensure legibility in the transcription process. In this section I will first examine the numerical data from both tasks: that is, the number of turns used by participants, words spoken or written and the length of an average turn. This will then be followed by analysis of the language used by the participants along with profiling them according to their tendencies.

4.1 Lottery winnings task

The CMC task was, as mentioned in an earlier section, to come to an agreement on what to spend a million euros on, with the caveat that only a small portion could be divided amongst the participants. Overall, according to the questionnaire answers, this task was felt to be easier compared to the F2F-task. One participant simply reported that "this was an easier task". Another one thought it was "fun and easy". Similar sentiments could be found in other questionnaire answers. This is something that should be considered in the analysis: the task being easier could, in theory, affect the language and amount of collaborative dialogue that emerges during the task: if all consider and feel the task is easy, there are fewer instances

where negotiation and clarification is needed.

4.1.1 Group A

Group A used the allotted ten minutes for the task. Solving the task seemed to go fairly smoothly for this group and the amount of messages was surprisingly low in the end. This, in part, might be a reflection of the perceived easiness of the task, although it is also possible that there are other factors in play. Overall there are 40 messages in the conversation, with five participants. It is quite difficult to establish a baseline for messages and length of a conversation of this type but at a glance it looks on the shorter side. Examining the time stamps of the messages, there are occasions where only a message or two are posted per minute. This is not that fast, at least compared to a spoken conversation - as can be seen later on when analysing the spoken tasks. Naturally, it would be optimal if there were more precise timestamps in the data, but unfortunately this is an aspect that cannot be helped. Precise analysis using only timestamps with the precision of minutes is of course very difficult, but it is still arguably worthwhile to at least try to hypothesise the reasons between these seemingly long gaps between messages. Such possibilities include the participants being unsure of their role in the group and not daring to write, the perhaps unfamiliar setting of the task causing some hesitation, or the participants being unsure of the rules of the conversation - in other words, when to give room for other people to write or when it is appropriate to start writing and take the turn.

In terms of negotiation of meaning there were not any instances of misunderstanding apparent in group one. This is backed up by the questionnaire data: when asked whether the participant noticed any such instances, all of group one reported having no problems being understood or understanding others. Some, again, cited the relative 'easiness' of the task as the reason for this. Another reason, according

to one participant, was the perceived easy vocabulary used by the group. Whether the use of easy vocabulary is something inherent to the mode of communication - in other words, the mode promoting the use of easier words - or simply chance is a question warranting further study and examination.

Despite their communication being smooth and easy, the nature of the task lends itself inherently to promoting the need for collaboration and collaborative dialogue. Group A's task solving starts with Anna enquiring of the others what they would like to do with the money. This is taken up by Berta, who suggests doing something for the environment, which others agree with. This seems to be the pattern this group's task-solving falls into, with someone asking a question of the rest of the group and the others most often offering support to the poser of the question.

Participant	Turns	Words overall	Average turn length
Anna	20	134	6.7
Berta	8	52	6.5
Catherine	16	83	5.2
Dana	10	30	3.0
Elisa	9	20	2.2

Table 1: The distribution of turns, words and turn length of Group A's CMC-task

Table 1 shows group A's performance in the lottery winnings task, describing each participant's turn count, word amount and average turn length. As is quite apparent from the data displayed in Table 1, the turns among the participants were not equally distributed. Of course, totally equal distribution is not something that could even be expected but nonetheless it is notable that two of the group members (Anna and Catherine) clearly use more turns than the the three others. The average

turn count was 12.6, meaning that only Anna and Catherine had more turns than the average. These two also had the most words overall – this goes quite naturally with having the most turns. Notable, however, is that Berta has the least amount of turns but has more words than Dana and Elisa who also have less than average amount of turns. Berta also had the second highest average word count with 6.5; only slightly lower than Anna. This means that Berta's turns were quite long on average, unlike Dana and Elisa's who had very short average turns – although this is most likely just because they had a low amount of words overall (30 and 20 respectively).

4.1.2 Group B

As for group B, their conversation lasted for almost precisely ten minutes. They had more messages overall with 63 as compared to group A. At the face of it it seems, then, that theirs was a more active group. There are a number of factors that could contribute to this. It should be noted that group two had already done the face-to-face task before moving on to the SCMC task. This could definitely contribute to the group being more comfortable and keeping the conversation going smoothly. It should always be noted that group dynamic can affect how smoothly a conversation in a group goes: it is always possible that the dynamic in group B was simply slightly better or more functional than group A.

Participant	Turns	Words overall	Average turn length
Fiona	13	68	5.2
Gina	11	80	7.3
Helen	4	24	6.0
Iris	5	32	6.4
Jay	6	49	8.2

Table 2: The distribution of turns, words and turn length of Group B's CMC-task

Table 2 shows group B's performance in the lottery winnings task, with each participant's turn count, word amount and the average length of their turn. Group B also had a similar phenomenon as group one where turns were not equally distributed among the participants. In their talk, too, two participants distinguished themselves from the three others by having significantly more turns and overall words. Here, though, there was greater discrepancies in how word amounts and turn amounts correlated: Fiona with the most amount of turns did not have the most words overall – in fact, they had the least amount of words on average, in other words the shortest average turn length, indicating that they had the tendency to write and take the next turn often but only say little. Jay, on the other hand, had the third least turns but had the longest average turn length, meaning that while they did not often take a turn to write, the turns they did take were quite lengthy.

Group B's conversation seemed more dynamic, with even some disagreement between the participants. Even so, this group did not have any instances of misunderstanding, either. Similar reasons were cited as in group A.

4.2 Founding a Country task

This section discusses the second, spoken task. As earlier described, in it the participants were told that they had just founded a country and now needed to come up with a constitution and other important aspects of a new-born country. A lot was left unclear and up to the students to decide - aspects such as where the country is located, how many citizens are there. This in and of itself was sufficient to cause some confusion and elicit collaboration and negotiation, as can be seen later on in the data, and was a conscious choice to achieve the highest possible amount of negotiation. First I examine group A's performance using the numerical data gained

from the task to get a general understanding of how the group performed. Then, the same is done to group B.

4.2.1 Group A

The beginning of group A's interaction was hesitant at best, the participants producing several sounds indicating hesitation - such as "err" and "ehh" - along with exchanging unsure glances with one another. This is a rather natural reaction as the group has been given no time to prepare and the task does seem quite complicated on the face of it. The group members also seem to look expectant: it is possible they do not know how to start the conversation and, more importantly, who is going to be the one to start it. This role of the conversation starter is soon taken up by A, who poses the question "so who is going to lead the country?" to the group.

Participant	Turns	Words overall	Average turn length
Catherine	50	393	7.8
Anna	45	306	6.8
Dana	54	320	5.9
Berta	41	204	4.9
Elisa	16	51	3.1

Table 3: The distribution of turns, words and turn length of Group A's spoken task

Table 3 shows the amount of turns, words and average turn length of the participants of group one. Generally, it seems that their talk's turns were fairly evenly distributed among the participants, with C quite clearly having used the most turns, but the others – with one exception – were not that far behind. E is a clear outlier, however, having only used 16 turns and even then having uttered fairly few words - a fraction of the words spoken by the participant with the next

lowest word count. This was also the case in

The data show that for group A a great amount of the turns consist of single-word entities such as 'yeah' and 'sure'; in other words, usually replying to another turn in agreement.

4.2.2 Group B

Participant	Turns	Words overall	Average turn length
Jay	18	290	16.1
Fiona	20	525	26.2
Helen	25	188	7.5
Iris	15	126	8.4
Gina	3	22	7.3

Table 4: The distribution of turns, words and turn length of Group B's spoken task

In Table 4 the turns taken by individual participant, overall words for each participant and their average turn length for group B can be seen. Here, like in group A, turn amounts were generally quite evenly distributed except for a single outlier, Gina. Other outliers can also be found: Fiona, for example, appears to have almost double the words overall when compared to the next highest amount and, due to this also has the highest average turn length. The participant with the highest amount of turns, Helen, on the other hand, has only 188 words overall; the third highest amount. Looking at group B, then, high turn count does not necessarily suggest that the speaker talks a great amount or dominates the conversation but rather that the speaker might just participate a lot in the way of single-word units or turns such as 'yeah'. In other words, they might just indicate that they are listening by showing some level of agreement to what the other participants are saying.

In the data shown in Tables 3 and 4 a certain amount of differentiation between the participants can already be seen. The next section will consider both of the groups in the F2F task, as it is not as relevant how the two groups performed but

rather how the individuals within those groups performed. As such it is important to contrast both the groups with each other and see whether any distinct speaker profiles emerge.

4.3 Profiling

This section starts with examining the outliers in the two groups, and takes a look at the actual task conversations to see how the language the participants used explains the amount of turns they used and how many words they spoke. In other words, what does a high turn count mean with regards to the participants talk, and how does a high or low word count affect – if in any way – the participants language. The section will systematically go through each participant, compiling together their performance in both tasks and their answers to the questionnaire provided.

To gain insight into learner behaviour in task-solving situations in differing modes, an attempt was made to divide the participants into different profiles or groups according to their performance in the tasks. The somewhat most natural grouping was to isolate the two people who talked the most during the face-to-face task, and those who participated the least in terms of word and turn count in to their own groups. An important group was also the one in which the participants performed highly in one mode and low in the other.

4.3.1 The Active Interactors

This group was for those participants who either talked or wrote the most in the tasks or were particularly active in their interaction. Three participants were placed in this group: Catherine, Fiona and Anna. I will go through the participants in this order, and finish the section on this group by comparing them together to find similarities in their language and behaviour.

4.3.1.1 Catherine

Catherine was the person who talked the most in their group with 393 words (they also used 50 turns with a turn consisting of 7.8 words on average). Catherine did not dominate the conversation, however, with most of the other group members being within a 100 words of her. It should also be noted that for Catherine's group the amount of turns was quite high compared to group B who completed the same task. In the case of the CMC task, however, they were not the one to write the most in their group but were the one who wrote second to most with 83 words overall and 16 turns. It is difficult to draw any credible conclusions from a sample size of two, however, it can be suggested that Catherine does not seem to shy away from participating in conversations, at least within the contexts of the two tasks. It also seems that the mode of communication does not significantly reduce the amount they speak or write: while Catherine's word count was not the highest of the group in the CMC task it was still among the highest.

In the spoken task Catherine acts as the initiator for their group's conversation, self selecting themselves as the first speaker after a brief moment of silence. They employ the tactic of posing a general question to the rest of the group simultaneously setting the topic for the next turns: "So who's going to lead the country?". While this does not seem to be the main tool of Catherine, they do employ it on a few occasions during the conversation to facilitate the solving of the task. More prominent, however, is the tendency to offer their own opinion as a comment to a question someone else posed. On some occasions there are simple statements such as "it should be like multi-part", "two doesn't work" and "it helps with the governance". Often, however – and notably increasingly towards the end of the conversation – these replies get considerably longer and more nuanced, with Catherine inserting their knowledge with regards to governance into them. For example:

(1) but in Finland there are no party-related issues with the judiciary side whereas in the states the president elects the judges who represent his party, so

(2) but would we have judiciary part? that means like the... not like the legislative part but as like the jury... I can't remember the proper legal term.

These turns are not exactly monologues but they are significantly longer than the single-word units and simple answer Catherine gives at the beginning. This could suggest that the subject matter - governance - is something that Catherine is familiar with and thus they can speak more extensively on it, or that as the conversation goes on they feel more comfortable and thus begin to speak more eloquently.

In contrast, Catherine does not initiate the conversation of the group in the CMC-task. However, they are quite quick to join in once the talk does start. The first replies are very short ones - "Yes" and "Amen" - that seem to function as single-word units for the purpose of moving the talk onwards. Their style of conversing is remarkably similar as compared to the spoken task: Catherine takes part mainly by posing questions to the other group members but also simultaneously inserting their own opinion or point of view into it, such as in the case of:

(3) for an association or company that does work for this type of stuff?.

Furthermore, in a similar fashion to the spoken task, Catherine finds an opportunity to utilize their own knowledge of the subject matter at hand, environmentalism and the protection and cleaning of the environment, and insert it into the conversation when they remark upon remembering a company existing that produces vacuum cleaners for oceans. It could be said, then, that Catherine's behaviour does not drastically alter between the different modes, although their output amount seems to lessen a slight amount. A final point of interest for Catherine is that during one of their turns occurs one of the only instances of self-correction during any of the tasks. Namely, Catherine corrects a grammar mistake of sorts they make: "yes for the sake enviro"[sic]. This is then quite soon - although one participant manages to

reply in between - followed by a correction of "** sake of". Notable here, possibly, is that Catherine takes the effort to correct their grammar mistake of forgetting the article 'of' while not correcting their misspelling of the word 'environment' to 'enviro'. It is possible Catherine thought that the grammar mistake was more likely to cause problems in understanding for others while the word environment was quite easy to infer both from the context and the start of the word. Of course, it is also possible that Catherine meant to write 'enviro', shortening the word on purpose to save time.

Finally, a look at Catherine's answers to the provided questionnaire will be given. Catherine has been studying English for 18 years, and noted speaking also French and Swedish, along with a little bit of Spanish. Regarding the spoken task, she reported having felt nervous at the start of the task due to the presence of a camera: "It made me feel like I was being evaluated". This was not the case, however, with the written or computer-mediated task, where Catherine reported having felt "... so much more relaxed". In fact, Catherine mentions repeatedly having felt nervous in the speaking task and not remembering much, but reports that as their group in the speaking task did not seem to have a coherent structure and lacked a "chairperson" that it was more difficult to make decisions. Interestingly, the conversation data does not seem to reinforce this. As for the computer-mediated task, Catherine reports their group having very few problems: she only expressed that the fact that they could not "express things without using body language as for me it is important in communication". Overall, then, the questionnaire does not offer much insight into Catherine's behaviour during the task solving situations. The reported nervousness during the spoken task could explain the fact that their replies at the beginning of the task were significantly shorter than those at the end.

4.3.1.2 Fiona

Fiona talked the most for group 2 in the F2F task. Interestingly, as in group A, the person to talk the most did not use the most turns but rather second to most.While the sample size is very small, it can be said then that there seems to be a tendency in high turn-count speaker to have shorter turns than those with fewer turns. In the CMC task Fiona, however, used the most turns and second to most words. This seems to follow the same tendency that could be observed in group 1: the person who talked the most in the F2F task was not the one to talk the most in the CMC task.

In the CMC task Fiona initiates the talk by posing a question to the group. The next speaker then self-selects, answering the question and posing a further question which Fiona answers. Fiona is quite active overall in the conversation, reacting to almost every topic with either a short answer or a question, such as: "WWF?" or "yes, that's a great idea!" or then with a longer statement of opinion, such as:

(4) I would like to donate to starving children, endangered animal protection, and climate change prevention.

It looks like, then, that Fiona does not hesitate to make their opinion known. They combine the more traditional tactics of posing questions to the group but also moves the talk forward efficiently by stating their own opinion.

The role of the initiator does not fall on Fiona in the F2F task, however, they are quick to join the talk and self-selects themselves as the next speaker after the initiator. Fiona's style in the face-to-face context is very similar to their style in the CMC context. They participate frequently, again commenting or reacting some other way to most of the turns the other group members use. In this task, also, they state their own opinion readily. Fiona's turns are often also considerably long, such as:

(5) but I think I mean we would probably have political parties, we will want to have more than just two 'cause we have seen how what kind of issues it might raise like in the states if you have just two major parties like is terrible.

Another good example is:

(6) well I guess that's um the problem that our country would like to be an example and actually make sure that other countries are following their like i don't know respecting their citizens human rights but then also you want to have good relationships with them so you don't want to be like blaming them for all the stuff.

From these examples it is quite apparent how her word count is high. Fiona also employs hesitation markers in their speech when trying to construct their turn - markers such as 'I guess', 'um', 'but I think I mean'. Furthermore, their grammar is at times quite imperfect although this does not seem to affect the comprehensibility of the turns: no one seemingly seeks for clarification after these turns, nor does Fiona themselves notice any instances of misunderstanding as becomes apparent from the questionnaire data that will be examined next.

In the questionnaire Fiona reports that they thought the spoken task went well and that the group agreed on most issues and that everyone was given a chance to speak. Fiona also did not notice any issues in being understanding or being understood during the task. As such, the questionnaire does not offer great insight as to Fiona's performance during the task besides the fact that there seems to have not been anything inhibiting them. This also holds true for the CMC task: according to Fiona the group had no major issues, nor were there any moments Fiona was not understood. As such, no more insight is granted into their performance in the CMC task, either.

4.3.1.3 Anna

Anna fell into the middle of the group with regards to both turn count and words spoken in the group's spoken task, while they are the participant with the highest turn count and consequently highest words overall written in the CMC task in her task group. The difference is not quite as dramatic as for some other participants between the two modes, as Anna was still not that far behind the highest performing members in the spoken task. However, this difference still seems significant enough to consider. Next, a look at the spoken task and CMC task will be given, in that order, followed by any evidence Anna's answers to the questionnaire provided.

Anna participated in the conversation in a variety of ways, most of which the other participants also employed widely. A large part of their turns consisted of short, single-word utterances that were used to indicate to the others that she was paying attention. Often, Anna sought clarification or further information by posing a question to someone, such as in the following:

(7) Anna: for 2 times maybe or once?
...
Anna: should there be a congress of some sorts like who'll actually do all the working?

The latter is also an example of using a question to push the conversation forward by introducing an idea to the conversation in the form of a question. This is something she used during the spoken task on a few occasions:

(8) Anna: should there be a congress of some sorts like who'll actually do all the working?
Dana: yes Catherine: yeah Anna: but a very democratic one so not like in the states

(9) Anna: what do people need when they establish a country?
Catherine: a constitution - that's like the first thing you need to do
Anna: okay

(10) Anna: do we need cars in a... 'cause we have trains and cool things

This question asking, combined with the use of single-word units, made Anna's style in the spoken task quite interactive, as she was often either agreeing to something that was said or eliciting reactions and answers from the other participants by asking questions. This is further exemplified by how on a few occasions commented something that did not necessarily move the conversation forward, or contribute much to the solving of the task, but rather just informed the others of her lack of knowledge in the subject matter, or that she did not know the answer to a question posed:

(11) Dana: can you be re-elected or?
Catherine: yes
Dana: ok sure
Anna: for 2 times maybe or once?
Dana: two times?
Anna: i don't know

(12) Berta: but how many members?
Catherine: ooooh
Anna: I have no idea how many members

(13) Dana: but that depends on how many people there are
Catherine: I think in Finland it's 200
Dana: I would say 200 for like 5 million people so
Berta: yeah
Anna: I know like five of them so
Dana: ahaha

Here, the first two examples showcase Anna using a turn to explicitly express her lack of knowledge regarding a question that was asked, while the third played the same role, only in a more implicit manner. This is quite interesting as Anna seems to be the only participant who used this sort of language to achieve this kind of a goal.

As was mentioned previously, Anna was the person with the most words written and highest turn count in her task group for the CMC task - in fact, by a considerable margin: 4 more turns than the next highest turn count participant and 51 words more. Anna played quite an active role in the task, even initiating the conversation. Like in the spoken task, posing questions was a tool she used often carry the conversation forward and actively interact with the other participants:

(14) Anna: So what would you like to do?
Berta: One word. Environment!
Catherine: yes
Catherine: Amen
Dana: Yes!
Elisa: good one
Anna: yep!
Anna: a donation
Anna: maybe?

(15) Anna: or should we like plant a ton of trees somewhere
Anna: save the rain forests

(16) Anna: can we just give all of the money away
Dana: i quess

In addition to showcasing Anna's usage of questions, the above examples also reveal other aspects of Anna's interaction style in the CMC setting. First, as can be seen in the first two examples, she used the tactic of splitting one's turn into two (or more) parts, like was seen previously by, for example, Dana. In the first example, as the turns Anna used are just single words, the reason behind this most likely is not trying to quickly reserve a turn or making sure her message reaches the others before the conversation moves forward but rather either a stylistic choice - in other words, it is just the way she writes in the medium - or that she was just quickly constructing her turn as she wrote in a more speech-like fashion. In the

second example, splitting her turn because of its length seems more feasible but it could also have played another role. In this case, the second part of the turn also seemed to qualify or explain the first part: by planting trees somewhere, Anna meant saving the rain forests. Alternatively, these could also be seen as separate suggestions, in other words plant trees and save the rain forests. Secondly, then, the above examples show the certain speech-likeness of Anna's language in the CMC task. An argument could be made on how the turn splitting in the first example emulates spoken language, as was mentioned before. Same could be said of the orthography of her language, with no capital letters and often lacking punctuation, especially notably the lack of question marks in the last two examples.

Finally, I will examine Anna's questionnaire answers. For the spoken task, she reported that she found it quite challenging, as nobody in the group knew anything about founding a country. Despite of this, Anna thought that the group managed to come to a conclusion well and that everyone had similar ideas. She also described the task as fun and interesting. The only difficulty she reported the group having was that their opinions were not very varied. This is an interesting insight, as it does not appear from the data that this was an issue for the group. Finally, Anna reported that there was one instance where she did not understand what someone was saying because she could not hear what they said properly, but that this was solved when someone else asked for an elaboration.

On the CMC task, Anna reported finding it fun and easy, and she had no problems expressing herself or being understood or understanding others. She cited her being a fast writer as the reason she did not have any trouble expressing herself during the task. This could potentially be one explanation to the turn splitting Anna did in the CMC task on a few occasions. One other point should be notified from Anna's questionnaire answers regarding the CMC task. She noted that because the group kept their turns short and simple, there were no instances of someone not

understanding what the others said. This is quite an accurate observation, as the group's turns in the CMC task were quite brief and simple, with everyone having relatively short average turn length's.

The three participants of the Talkers group seem to share a key similarity when it comes to their performance and language used in the tasks: they could both be described as having been prone to take the initiative and move the conversations forward. Catherine initiates her task group's spoken task and Fiona and Anna initiate their respective task groups' CMC tasks. Furthermore, they also overall overall employed language and tactics in the interactions that introduce new topics and move the conversation on; they are all active agents in the conversation. The following contains examples of these turns that play such a role:

(17) Catherine: vote?
Catherine: 1 = keep the money 2=give it away
...
Catherine: So who's going to lead the country?
Catherine: so maybe party-free?

(18) Fiona: charity?
...
Fiona: I would like to donate to starving children, endangered animal protection, and climate change prevention
...
Fiona: do you think our country will be capitalist or do you have any preference?
...
Fiona: do we have any natural resources?

(19) Anna: keeping the money N or Y
...
Anna: well one million is not a huge amount of money so maybe it would be better to give it to one organisation so that they can use the money as efficiently as possible
Anna: guns are illegal!
Anna: for some reason I don't really like that 'cause that means that the legislative part can always vote against the other parties

Overall, all three seemed to favor using questions to introduce what could be considered new topics or moving the current topic towards the next logical step, although Fiona and Anna also used a strong, declarative statement to this end. In addition, all of them also had significantly long turns, combined with a high turn count. Where they differed in this regard was that Fiona's turns were quite long outright whereas Catherine seemed to require some time first to get comfortable before her output increased, and Anna's were slightly shorter than the other two. Anna, too, however, had her share of long turns, as can be seen in the examples above. She also had the same phenomenon of her turns getting progressively longer in the spoken task. This is potentially explained, however, by the fact that Catherine and Anna's group started with the spoken task while Fiona's started with the CMC task - in other words, when Fiona performed in the spoken she was already familiar with the group and with the idea of solving a task with them while Catherine and Anna were not.

4.3.2 The Timid

In this group belong the participant(s) who seemed reluctant to participate in the task solving, namely their contributions to the group were very few, speaking or writing little compared to the others. Three participants fulfilled this requirement, however, only one did so consistently across both tasks. As such, the main focus will be on the consistent participant, as the other two will be discussed in another section.

4.3.2.1 Elisa

In both tasks Elisa spoke or wrote the least, and especially in the spoken task their contribution was but a fraction of the others. The following shows Elisa's turns in group A's spoken task:

(20) Elisa: A president

Elisa: oh!

Elisa: yeah

Elisa: okay

Elisa: so eight years in total

Elisa: *nods*

Elisa: so similar to Finland

Elisa: people are in other countries

Elisa: illegal?

Elisa: yeah

Elisa: yep for sure

Elisa: yes

Elisa: me too!

Elisa: or you just forget

Elisa: 18

Elisa: yea, yea

It is quite apparent from Elisa's replies that their role is mostly a supportive one in the conversation. They do not open the conversation, as their first turn constitutes an echo of an answer someone else provides to the starter of the task: "A president". Similarly, their turns play no initiating role in the course of the task: they seem to not introduce a single new idea or suggestion to move the conversation forward. Instead, their replies consist mainly of replies of confirmation and repeating what someone else has said – echoing – in an affirming fashion. This has, of course, the effect of allowing the speaker to participate in the conversation even if they have nothing to say, or if they don't really want to participate for one reason or another. Furthermore, these replies also play the function of keeping the discourse

moving – making them quite important to the task, overall. It seems, then, that Elisa at least tried to participate even in a situation where they had nothing to say, or alternatively at least tried to hold up an appearance of participation.

Similar performance was repeated for the CMC task: overall, Elisa's participation remained low with only 20 words written. Looking at the turn counts within the task group also gives some perspective: Elisa took 9 turns overall, with other participants such as Berta and Dana taking 8 and 10, respectively, all the while writing more. In other words, it behooves to look at both turn count and words overall when analysing participation. The following shows Elisa's turns in the CMC task:

(21) Elisa: good one
Elisa: cleaning the oceans from plastic
Elisa: i want to
Elisa: :DDDD
Elisa: 1
Elisa: okay I lost
Elisa: yes
Elisa: sounds interesting
Elisa: I agree

From this it can be seen that Elisa's language in the CMC task quite closely mimicked the language of the spoken task. The single-word units were there although in a slightly diminished capacity: this could very well have been due to the different mode. In the CMC task, Elisa did not use the technique of 'summarising' what was said before. Instead, on one occasion she offered an original idea of her own into the conversation with 'cleaning the oceans from plastic'. Otherwise, her turns consisted mainly of short units that showed she was paying attention in a similar

fashion to the spoken task. It is perhaps notable that Elisa was the only one to use an emoticon of any kind during the task, introducing a degree of non-verbality to an environment which normally lacks it.

The questionnaire provides some potential explanations as to Elisa's low participation. They described the experience of solving the task as difficult because of the topic along with having felt uncomfortable because they didn't have anything to say. It seems understandable, then, why Elisa only had a fraction of the turns the others did. However, they still did try to participate despite their apprehension, most likely due to the group's other participants: Elisa cited that the other people in the group had some good ideas that Elisa was able to use to add something to the conversation. Furthermore, in addition to the difficulties they had with the topic Elisa also reported occasions where they had trouble understanding what the other group members said, namely due to some unfamiliar terms they used. Additionally, Elisa did not want to, for example, ask what the others had meant in fear of sounding stupid. This is another explaining factor behind Elisa's low participation: it could be expected that on occasions where the talk was on a topic that had terms they did not understand, combined with their apprehension overall with the task, their will to participate and take part in the talk was low.

Furthermore, according to the questionnaire answers, the mode of the conversation did have an effect on Elisa's performance and how they felt about the tasks: Elisa report that there were no problems during the CMC task and that they felt more comfortable during it. Despite this Elisa has the least amount of turns (and words) in the group also in the CMC task - in other words, feeling less anxious did not seemingly affect their willingness or ability to participate in earnest. This suggests that the mode of conversation did not affect Elisa's performance in the task and that at least within the context of tasks such as these, the style with which they take part in group conversations is to participate minimally with short turns.

4.3.2.2 Iris

Iris managed to be the person with the second least turns in both tasks: 15 in the spoken task and 5 in the CMC task. At the same time their word count was also the second lowest in both tasks: 126 in the spoken and 32 in the CMC. Their average turn length, however, was not the second lowest but third lowest. It seems, then, that Iris was perhaps unusually consistent between the two modes when compared to the other participants, and looking at the statistics of the talks alone suggests that their behaviour did not change between the two modes. It is possible that their language differs, however. Like in the case of the other participants, analysis will start by examining the spoken task first, followed by the CMC task and finishing with a look at the questionnaire answers.

A great part of Iris's turns in the spoken task consisted of some single-word unit: "yeah", "yes", "sure", "yup". It seems then that Iris played a strongly supportive role throughout the conversation, agreeing with what the others said and that she was paying attention at regular intervals. Besides these single-word utterances, Iris generally seemed to employ either summarising or making simple statements in their turns. In the following can be seen how Iris suggested a policy for their new country, and how she summarised the topic so far of what kind of a relationship they would have with neighbouring countries:

(22) yes maybe we could find out what natural resources we have and then employ them in a sustainable manner so that could be a source of income and jobs for our country

(23) so good relationships but still independent

. Overall, there is not a lot out of the ordinary in Iris's spoken performance; the only aspect that stands out is that they employed no question-asking in the spoken task,

a tactic, which, was otherwise quite a popular among the participants. Interestingly enough, while absent in the spoken task, Iris does use question-asking in the CMC task. It is difficult to pin-point the reason for this and as such it is possible to only speculate: Iris might simply have not found an opportunity or feel the need to ask a question in this particular task, or that in general Iris prefers this way of communication in spoken conversation.

In the CMC task, Iris employed mostly the same tactics the other participants used. For example II's first turn combines agreement with asking a question and simultaneously moving the talk forwards by suggesting a new method how the money could be used:

(24) Sure! Maybe donate part of the charity money to the English department?

It should be quite clear that the first sentence - "Sure!" - works as showing Iris's agreement to whatever was said or suggested previously. They then posed a question, seemingly to the whole group. Besides the inclusion of questions, Iris seemed to use the same tactics as she did in the spoken task: the earlier example moving te conversation forward, for example, and again at one point in the conversation summarising what the group had agreed on so far:

(25) Iris: So we need nine: WWF, clean energy research, English department, starving children, oceans, endangered animal protection...

With regards to the spoken task Iris reported that the group had no major problems during the task, the only difficulty having been the lack of specific about the location of the country they were to found. Otherwise, Iris stated that she got to speak when they wanted - indicating that nothing constrained them during the talk and the amount of turns she used is as many as she wanted to use. This seems to mostly be the case also in the CMC task, where Iris also cited having had no significant difficulties. However, they did raise a single issue when asked if she had

any trouble expressing her opinion: "Because it takes a while for everyone to type, I had to wait some time for others to answer before I could join the conversation again to avoid confusions". This seems to be a similar issue that Jay also reported, and indicates a possible problem in the participants' adjustment to the CMC mode of communication and the different turn-taking rules it requires. For more discussion on the matter, refer back to the previous section on Jay and an upcoming section that discusses the most prominent issues that the participants encountered.

While there are apparent differences in the language and performance of the two members of the Timid group, I argue that two factors warrant especially Iris's inclusion: first, her performance in relation to her other task group members and secondly, certain tendencies in language between Iris and Elisa that can be seen in the data. That is, their apparent tendency to play a more supporting role on most occasions and using single-word units and summarising - the former in Elisa's case especially and the latter in Iris's - to still be included in the conversation while simultaneously keeping it on track. Another factor regarding how the participants were divided between these groups or profiles, the Timid especially, also warrants a note: as can be seen in the tables summarising the participants' task performance, there were other participants who also had seemingly low amounts of interaction in one of the two tasks. These two, namely Helen and Dana, had turn count and word amount numbers quite close to Elisa in either the CMC task or the F2F task - Elisa who could be considered the benchmark for low participation. However, as these two participants both had high participation in one task and low on another, I decided that they warranted a group of their own. The next section discusses these two participants with a divided performance.

4.3.3 The Divided

This group contains the two participants whose performance varied greatly between modes, mainly in how much they participated and interacted with the other students. There is also an interesting division between the two participants who belong to this group: one was highly active in the F2F task and not so in the CMC task, and the other one was highly active in the CMC task while more passive in the F2F task. The following will examine the two people belonging to this 'Divided' group.

4.3.3.1 Helen

In the Divided group it was Helen who had high participation in the F2F task and low participation in the CMC task. In group B she used the most turns during the F2F task, 25 in total. Interestingly, however, their total word count was only the third highest. Here, then, is exemplified the fact that also was apparent in group A's data: using the most turns does not correlate with talking or writing the most. Notably, Helen employed no questions during these aforementioned 25 turns. Instead, their turns were quite declarative in nature, mostly answering questions posed by others. Her role, too, was not an initiative one: she did not start the task's talk nor did she introduce new topics or ideas in a great amount. Rather, Helen role was mainly a reactive one with them voicing their opinion and ideas in reaction to someone else's question. For example:

(26) Fiona: do we have any natural resources?
Helen: yea so...
Iris: yes
Jay: we could just pick one regardless of our location and our resources, we just ignore those and...
Helen: yea
Gina: probably education, healthcare
Helen: education, healthcare, free daycare for little kids, if there happens to be

Fiona: I'd say I'd prefer as much freedom as possible for an individual citizens as long as they don't, um
Jay: use it?
Helen: yeah
Iris: yeah
Fiona: yeah, use their freedoms so they don't use their freedoms to suppress others.
Gina: so have certain laws there and have everyone follow them but with their own boundaries
Helen: yeah. I would like to see a country where everybody works and
Jay: no unemployment
Helen: yeah. So probably some money to support that

On a few occasions Helen employed the tactic that has been seen so far in all the participants' talk: a simple 'yea' or 'yeah' to show that they are listening, attentive and have understood what has been said. Further, Helen reacted to the question posed by Fiona but only after Jay had first provided his opinion. Helen repeated some of the points posed by Gina and then added a suggestion of her own. Afterwards, they asserted the sort of society they would like to see. This looks to be a pattern of a kind for Helen: instead of initiating topics, they simply respond and build on others' ideas. This sets them apart from the person who employed the most turns in group A, who in contrast demonstrated a more initiating role in the conversation, as was discussed in a previous section.

In quite a stark contrast, in the CMC task Helen only took four turns, the least in her task group. Consequently their word count was also the lowest while their average turn length was the second lowest. All of Helen's four turns consisted of them showing their support for something that was suggested, though notably not using single-word units but instead using whole sentences, such as:

(27) That would also be a good idea

(28) Yeah I am interested in that too!

On one occasion she highlighted something a previous speaker has suggested, simultaneously supporting it and showing that they are listening and actively participating:

(29) Clean energy research would be my choice as well! (sic)

It appears, then, that Helen tries to participate and them not just using single-word units to show their affirmation of ideas the others brought up also suggests that their lack of turns is not due to lack of skill or will - she can clearly express her ideas and thoughts without much trouble. Next, a look at Helen's questionnaire answers is taken in an effort to explain this disparity between the two modes.

The questionnaire does provide some answers to Helen's conduct during the tasks, particularly the CMC task. Regarding this task, she reported having had some trouble during the task because "There were so many ideas that were the same as mine so I didn't really find it important to put the same ideas up there again." This could potentially explain why Helen only used 4 turns: they only wrote when they saw an opportunity to give something new to the conversation, most of the time being possibly too slow and the others contributing what Helen meant to write before she had the time to do so. It could be said that their behaviour is affected by the medium: in a spoken setting, as proven by the data, the same problem did not arise. It could be possible that the computer-mediated setting, being more unfamiliar when it comes to task solving, caused some hesitation regarding turn attainment and thus Helen did not secure a turn for herself before the others managed to express the same ideas she had. Issues with knowing when someone had secured a turn or whose turn it is were also raised by other participants, and will be covered in a further section.

4.3.3.2 Dana

Next, a look is given to the other participant whose performance was divided between the two modes. Dana's interaction amount in the CMC task could be described as

relatively low, with 30 words written during her 10 turns. Conversely, in the spoken task she spoke 320 words during her 54 turns. This is quite a contrast to the CMC task. In the following, I will examine Dana's performance across the two tasks and also describe her questionnaire answers.

Dana does not initiate her task group's conversation but joins it without much hesitation. This kind of single-word unit can also be found in other participants' speech, too, and acts as an indicator to others that the speaker is listening. In fact, single-word units appear to be a tool that Dana uses readily and often in spoken conversation:

(30) Catherine: So who's going to lead the country?
Dana: o yea
Berta: Like a president, or. . . ?
Dana: unintelligible
Elisa: A president
Anna: a president
Dana: a president yea okay

(31) Catherine: I think four years is functional
Anna: yeah
Dana: yeah

(32) Catherine: it should be like multi-party
Anna: yeah
Dana: yeah
Berta: *nods*
Elisa: *nods*
Catherine: two doesn't work
Dana: true
Elisa: so similar to Finland
Berta: yeah
Dana: yeah

In addition, they use questions as a device to move the conversation on and, perhaps, to encourage others to participate and letting them have a turn. As discussed in the

section on turn-taking, questions generally act as a method for either the question poser to select the next speaker or, as seems to be the case most often with Dana, to allow the other participants to self-select themselves as the next speaker. Dana did also use questions to directly give someone else a turn, though in usually only a single type of situation: as a follow-up to someone else's suggestion or turn or as a clarification request to such. For example:

(33) Catherine: that's probably what I would say
Dana: how long time?
Elisa: oh!
Dana: for... four, six, how many years?
Anna: hmmm
Catherine: I think four years is functional
Anna: yeah
Dana: yeah

Here, Catherine concludes the first part of the conversation: the group has decided that a president will lead the country. Dana then moves the talk to the next topic with her question. One can note here that this question is not exactly wholly correct in a grammatical sense, possibly affecting Dana's next turn: after Elisa has exclaimed 'oh!', Dana self-select themselves as the next speaker and and seems to clarify their previous turns' question. This appears to provide enough context for someone else to provide an answer to the question.

(34) Dana: can you be re-elected or?
Catherine: yes
Dana: ok sure
Anna: for 2 times maybe or once?
Dana: two times?
Anna: i don't know
Berta: something
Catherine: something 'cause I think it's better
Dana: two times so it's gonna be twelve years
Catherine: yea

In this exchange, Dana again started a new topic by posing a question. Anna then followed up with a suggestion. The dialogue between Anna and Dana then shows a sequence where Anna first seemed to pose a question to Dana, who then again posed a question to Anna. While neither speaker explicitly select the other as the next speaker, the context of the talk can be seen to affect this in such a way that speaker selection happens the way it does, the exchange effectively being a dialogue between the two parties.

In addition to question posing, Dana also employed other methods of participation. Notably, they also often commented on the other participants' ideas and turns, as seen in the following:

(35) Berta: only one or? 'cause if we only have one representative for each region then... then like
Elisa: people are in other countries
Berta: wha-wha-what... I dunno
Anna: it should be more than one
Catherine: it depends on the population of the region
Berta: okay
Dana: and also the fact that if there are many parties that there is only one people for one region so it needs to be more...
Anna: yeah, true
Berta: okay
Dana: but that depends on how many people there are

Again, Dana evaluated the other participants' ideas while also bringing in her own voice and opinion. A notable feature in her talk, also, is that her grammar is not quite perfect at times. This, however, does not seem to come at a cost to comprehensibility or her eagerness to talk.

In the CMC task Dana's 10 turns consisted mostly of the same single-word units she favored in the spoken task. Furthermore, she also expressed agreement with other means, though these means, too, played the same kind of role of showing support and that they were present and listening:

(36) Berta: One word. Environment!
Catherine: yes
Catherine: Amen
Dana: Yes!

(37)

(38) Catherine: hmmm well one million euros is a lot
Dana: I like the plastic idea
Catherine: plastic and trees?
Anna: can we just give all of the money away
Dana: i quess

In addition to single-word units and showing agreement, there was an instance where Dana interacted with the other participants by on one hand posing a question to the task group, seeking clarification to the task that had been given to them and on another hand perhaps trying to assert that everyone is on the same page about the task description, where it was said that the participants could keep 10% of the winnings:

(39) Berta: we get to keep 10 Catherine: ** sake of
Dana: but when don't have to keep any of it, right?
Dana: unless someone wants?

What was also interesting in this exchange was how Catherine corrected a typo she had made earlier whereas Dana did not, even though technically she made a mistake in writing 'we' and her question is missing a 'to'. This could be an indication of how 'speech-like' at least Dana's language is in the CMC task: some lapses in correct grammar are deemed acceptable if they do not hinder comprehensibility, for example. Time-constraints, too, could have affected this, as in CMC participants can sometimes be in a rush to secure their turn, unsure of how the rules work, as was discussed in a previous section on turn-taking in CMC.

In the questionnaire Dana mostly cited having problems with coming up with new topics or, rather, feeling like it was sometimes difficult to come up with new topics. Interestingly this does not seem overtly apparent in the data itself - there are no long pauses as the participants come up with a way to take the conversation forward, for example, at least in the spoken task. This same issue was reported by Dana in the CMC task: "The task was fun, but I think we were quite fast to decide what to do with the money, because at the end it was hard to come up with new things to talk about". This could, in part, explain some of the relatively long gaps between messages towards the latter part of the group's CMC task: having decided quickly what to do with the money the task is essentially done and the group is left to come up with something to fill in the rest of the allotted time. It seems, then, that the task itself was the culprit behind Dana's split interaction amounts - at least she did not confess to having any problems with getting a turn or expressing her ideas to the group in the CMC task.

4.3.3.3 Gina

Gina, like Helen is quite heavily divided in their performance between the two modes: in the F2F task she only spoke on three occasions with an overall word count of 22; and in the CMC task, on the other hand, she used the second to most turns with the highest word count. In other words, her performance is reversed compared to Helen, one of the three members of the 'Divided' profile. The questionnaire can potentially explain this discrepancy as it did in Helen's case. First, however, a look at both the F2F and CMC task and Gina's turns in them is given.

As stated, Gina only used three turns during her task group's spoken task. These turns can be seen in the following:

(40) Gina: yeah
Gina: probably education, healthcare

Gina: so have certain laws there and have everyone follow them but with their own boundaries

It is difficult to draw any strong conclusions from Gina's spoken turns as there are so few of them. While Gina and Elisa are similar in the regard that they both have the least amount of turns in their respective groups in the spoken task, Gina's turn count is significantly lower than Elisa's. Like Elisa, Gina also did not seem to play an initiative role in the task, though she seem to introduce something more concrete to the conversation with her last two turns: one seemed to suggest something – education, healthcare – as an answer to a question posed to the group as to how should their country focus their resources while the other, the last one, seemed to work as an affirmation or an elaboration to a turn before taken before it:

(41) Jay: where should we focus like our financing of capital like education, army or jobs? Energy?
Helen: I don't know where our country is situated, that's quite an important question
Fiona: do we have any natural resources?
Helen: yea so...
Iris: yes
Jay: we could just pick one regardless of our location and our resources, we just ignore those and...
Helen: yea
Gina: probably education, healthcare

(42) Fiona: I'd say I'd prefer as much freedom as possible for an individual citizens as long as they don't, um
Jay: use it?
Helen: yeah
Iris: yeah
Fiona: yeah, use their freedoms so they don't use their freedoms to suppress others.
Gina: so have certain laws there and have everyone follow them but with their own boundaries

As such Gina, while having very few turns, does seem to still provide something

to the task and conversation. It is difficult to conclude just from the turns alone why, exactly, they happened to participate so little, however, as skill-wise she did not seem to have any particular problems in expressing her thoughts. The last turn seems to especially prove this, and warrants some examination for this reason alone. In the example, Fiona tried to express her opinion on citizen rights but she could not quite finish her thought. The other participants then tried to assist her by filling in the blank but not quite succeeding. Finally, Fiona almost manages to summarise what she was going for. Then Gina selected herself as the next speaker and both summarises and concludes what Fiona's idea would mean for their country. In other words, Gina showed that she was both listening and actively processing what was being said, hinting that her low participation was not due to disinterest or lack of skill.

There is more to analyse in the CMC task data. As previously mentioned, Gina had the second highest turn count with 11 turns and the highest word count in the task with 80 words. It was already shown that Gina is not averse to longer turns and that holds true also in computer mediated communication. She employed a wide variety of tactics in the conversation, asking questions on a few occasions but also using some turns to summarise and explain the decisions that had been done by the group or the consensus that had been reached as can be seen in, for example:

(43) so we would now have eight if you count local businesses and space travel.// nine if we split the remaining 10% between universities.

This looks like a continuation of the previous turns although as to why it Gina split the turn into two is not quite as clear. This could be an issue of the lack of turn-taking rules for CMC conversations that were also touched upon earlier, or a case of Gina not wanting to take such a long time to compose a message and thus splitting it into two. By splitting the message into two, thus using two turns, she made sure that her message reached the others before anyone else could interject. Then, the

first message played the role of reserving a turn and space while the second turn completed the message.

Like the two members of the Talkers profile, Gina seemed to take the initiative on several occasions, both introducing new topics or deepening the current topic in some manner. This can be seen in the way the task group's conversation starts:

(44) Fiona: charity?
Gina: was thinking about the same idea, then split the remaining 10Fiona: yes

A further example can be seen in the middle of the group's conversation. This, too, shows Gina's tendency to split longer sentences into two turns or otherwise elaborate on her own turns:

(45) Gina: what if we choose a few charities and give them all an equal amount of money
Iris: 10 percent to each one?
Helen: That would also be a good idea
. Gina: that way everyone can help the organization they want

In this example, Gina moved the conversation forward with her first turn. Iris and Helen then interjected with their own input and then Gina seemingly added to her own previous turn, in an attempt to justify her idea. Again, it is possible that she split her turn in a similar fashion as was discussed before. It is also possible that only later she realised that her idea needed some justification or elaboration.

Unfortunately, speculation is the only thing that can be done regarding this matter, as the questionnaire did not provide analysis this deep. It did, however, provide answers as to the split in performance between the two tasks. This will be looked at next.

According to the questionnaire answers the reason for Gina's low participation in the F2F task was anxiety over the recording of the task along with a subject matter that was unfamiliar and uninteresting to them, resulting in a lack of vocabulary

regarding the matter. In contrast, Gina reported that the CMC task felt easy and comfortable for her. Again, she mentioned vocabulary, how it was easy and how they felt they could use "internet lingo" and still be understood. It seems, then, that it is not the mode of communication but rather the subject matter that mostly limited Gina. The mention of internet lingo could be seen to be context specific: Gina only mentions it in the case of the CMC task and not the F2F task. It is possible, then, that to Gina the use of internet lingo is context specific and thus in the CMC task they can use vocabulary that makes the task and the talk easier for them. This, of course, can not be precisely verified.

4.3.4 The Average

This group contains the two participants who were difficult to place in any one category and who seemed to fall in to the middle in relation to the others.

4.3.4.1 Jay

In the spoken task Jay used 18 turns, making them fall in the middle of the group: two people took more turns than them but two people took less turns. However, at the same time they talked the second most with 290 words overall, again adding to the finding that turn count and amount spoken or written do not necessarily correlate. First, a look at Jay's spoken performance will be given.

Jay acts as the initiator for the talk, opening the conversation by asking of the group:

(46) so do you want a democracy?

This is answered by two participants before Jay self-selects themselves again to clarify:

(47) I was just thinking 'cause... four women, maybe you want a matriarchy

This turn seems to act as a joke, perhaps in order to lighten the mood of the talk, although it is hard to judge its effectiveness. Only one person reacts to the turn by self-selection, replying 'no, no'. Jay takes this as a cue to select themselves as the next speaker, seeking confirmation from the others as to the first decision of the group: "so democracy?". As the group agrees, the topic moves on as FF takes the next turn. Jay attempts to elaborate on this topic by posing an indirect question to the group, something that seems to be a common tactic for Jay:

(48) Jay: so democracy?
Fiona: yes
Iris: yeah
Helen: agreed
Fiona: yes, and I think our basic values should be equality amongst all citizens, I don't really know how many citizens we have but, I guess for start just five but um equality and justice and love and peace, I don't know
Helen: yeah
Jay: Um so there's always the question of whether we support individualism or collectivism

He did also pose direct questions to the group to facilitate the talk but very rarely were the question directed at one member in particular: as has mostly been the case with all the participants, mostly these questions were open for anyone to jump in and select themselves as the next speaker. On one occasion, however, there appears to be a rare occasion where the turn-taking structure is rigid in the way that only a certain person is supposed to answer:

(49) Helen: and we would probably want to have good relationships with other countries
Iris: sure
Jay: is there any countries in particular you would want to foster good relations with if you could just pick one maybe US or China?
Helen: China would probably good to be on the good side with them yeah, probably, yeah have good politicians

Here, Helen made a suggestion to the group, to which Jay reacted by by asking for

clarification, even offering some examples and thus steering the conversation. In this situation, Jay's clarification request selected Helen - or attempted to, at least - as the next speaker. This seems to have been also clear to the group, as Helen was the one to answer Jay's prompt.

Quite similarly to the spoken task, in the CMC task Jay used third most turns, falling in to the middle of the group. His word count was not as high relatively, however, with only 49 words written between their 6 turns. Consequently, Jay's average turn length was the highest of the group with 8.2 words per turn. In other words, while talking relatively little and using fewer turns, those turns were quite lengthy. Notably, also, Jay took the role of facilitating the talk with the use of questions in this task: all six of their turns are used to pose a question, either to the group or to a certain person, as is the case with Jay's first turn in the conversation:

(50) Fiona: charity?
Gina: was thinking about the same idea, then split the remaining 10%?
Fiona: yes
Helen: Sounds good!
Iris: Sure! Maybe donate part of the charity money to the English department?
Jay: Any particular charity?

Jay seemed to enter the chat room late (this has been omitted from the final data, but the system posted a message into the room when a particular user entered the room), which results in some turns occurring after the initial question before they have the chance to pose theirs, asking if the initiator had any particular charity in mind. Some notable details of Jay's turns are that they seemed to write like one would in a more formal setting, with correct punctuation, grammar and capitalised letters at the start of sentences. In essence, their writing is not very spoken-like when compared with, for example, the initiating turn of the talk where the participant expressed the idea of "Would you like to donate the money to charity" with just a single worded question "charity?" [sic]. A further observation that can be made

is that on occasions in the talk Jay combined two tactics in their turns, especially toward the end the task: first they summarised something that was previously agreed upon and then followed up with a question. This can be seen, for example, in the following turns:

(51) So that is six. Would any of you invest in, say, space travel?

(52) So if we all keep 10%, how much would that be divided among six?

The questionnaire did not provide much greater insight into Jay's performance. For the most part, it seems, Jay felt that the tasks went well and without any large problems. In the spoken task Jay reported having no difficulties understanding or being understood, and the only difficulties, according to him, was deciding some aspects of the country the group was establishing. The CMC task, however, seemingly had more to note: Jay remarked that the task seemed 'more stifled and less fluent since it did not involve any speaking'. Further, they reported that "...There were cases when I was typing and someone posted something and I did not read it before posting my message". This latter remark is likely connected to the former in a manner: not reading what the others messaged before sending their own yet unfinished message might contribute to the feeling of lack of fluency and stifled feeling. This, again, leads to the issue of possible problems in turn-taking rules in CMC : as the participants are unsure of how the rules of turn taking work in the CMC context - or try to extend rules that work in F2F conversation but not necessarily in CMC - the result can possibly be that the conversation feels somehow not fluent or stifled, as Jay reported. Messages take longer to write and instead of receiving the information bit by bit, syllable by syllable like in spoken conversation, the whole message needs to be written out and sent before the other participants can see it.

4.3.4.2 Berta

In the spoken task Berta's statistics - that is, their turn and word count and their turn length average - appear to be quite average: not the lowest of the group but slightly less than the top three. It should also be noted that the person who had the least turns and words overall spoke significantly less than the others and thus Berta, while being second to last, still spoke noticeably more than the last person. As 3 shows, Berta used 41 turns during the talk and spoke 204 words overall, making their turn length on average 4.9 words. This was about 100 words less than the top three when it comes to words spoken overall, but only 4 turns less than the next highest user of turns, Anna, who used 45 turns. This would suggest, then, that most of Berta's spoken turns were relatively short. This is corroborated by the data - the following will take a look at some of Bert's turns in the spoken task and how they used them to participate in the talk.

Berta did not initiate the conversation, but did very quickly join in when the initiator posed a question to the group:

(53) Catherine: So who's going to lead the country?
Dana: o yea
Berta: Like a president, or. . . ?
Elisa: A president
Anna: a president
Dana: a president yea okay
Catherine: that's probably what I would say

This question moved the responsibility of choosing the next speaker to the other members, not having explicitly addressed any particular member. First Catherine selected themselves as the next speaker but as their turn did not offer an answer to the question, Berta selected themselves. They did not offer a clear answer to the question either, however, but rather chose to hedge it by forming it to a question simultaneously. It could be inferred from the context that this question was aimed

at the one who asked the original question; Berta attempted to select Catherine as the next speaker. This seemingly did not happen, though, as Catherine did not get a turn until all the other group members had spoken, in which case Catherine did seem to answer to the question.

Some insight can again be drawn from the answers Berta gave to the questionnaire that was provided to the students after both tasks had been completed by the group. Berta reported that they found the F2F task more difficult because the subject matter did not interest her, making Berta feel out of their comfort zone. Furthermore, she cited having some difficulty expressing their opinion during the task because "... I felt like I was too stupid to talk about the topic". This could explain in part Berta's high turn count but relatively low word count when contrasted to the other high turn count participants: feeling out of their depth and "too stupid", Berta tried to participate but as she felt she did not know enough to talk in-depth, the turns remained shorter and more shallow with regards to the content.

The CMC task was not difficult for the same reason according to Berta but they also had problems in this task. Instead, they reported that "... task felt weird because we were in the same room. There was a temptation to speak aloud. If we had been in different rooms the task would have been 'easier' ". This was not a problem per se with the task mode itself but rather in the set up of the task. However, feelings such as the one expressed by Berta are something that should be taken into account if, for example, applying CMC tasks in a teaching setting where it is not reasonable to expect to be able to separate the participants so that they are not in the same room. Furthermore, this issue of Berta's could also be just a question of habit: if enough tasks in a similar setting have been solved it is altogether possible that the feeling of weirdness she reported would vanish.

Berta also reported having had some issues in expressing their opinions during the CMC task. This problem also links to the issue of being in the same room with

the other participants: Berta said that on occasions when they started writing a reply to the chat, hearing someone else writing made them hesitate or even stop altogether and wait for the other's message to be finished. It seems, then, that at least Berta had some trouble in determining how turn taking and turn assignment worked in the CMC mode. In fact, it could be seen that Berta applied turn taking rules more fitting for a spoken task, in other words whoever started "speaking" - in this case, of course, writing - first gets the turn and others must wait for the turn to finish.

5 Discussion & Conclusions

Having examined each participant individually, this section will draw together any notable or interesting findings observed in the data. Something something possible systemic similarities between people and their behaviour in a certain context and between them.

The first research question asked how learners allocate turns in each of the task settings. In the F2F setting, the most common way for turn allocation was next speaker self-selects: in each transition-relevant place, the next speaker selected themselves as the speaker by starting their turn as the previous one ended. On a few occasions, a situation which could be construed as current speaker selecting the next speaker happened when the current speaker asks for clarification from previous speaker, thus giving the following turn to the previous speaker (if they choose to answer). No current-speaker continues allocation happened. In the CMC setting, the situation is mostly identical to the F2F setting: most of the turn allocation was done by next speaker self-selects. However, as pointed out by Garcia and Jacobs (1999), these turn allocation techniques function differently in the computer-mediated environment. Thus, as described in a previous section, interactants do not select a next speaker but rather a chance or a slot to make a post in the future. As such the most used allocation tactic was future poster self-selects.

Although the time stamps on the messages in the CMC settings were not as accurate as ideally they could have been, it is still apparent that messages were not posted very rapidly by participants. Sometimes, only one or two messages per minute were posted. This could potentially be a reaction to the lack of any overt turn allocation or monitoring techniques in the chat tool: as everyone is unsure as

to how to distribute turns and who is allowed the next turn, no one readily takes the initiative and the participants wait to see whether someone else starts writing. In this regard, this system could be seen as a turn management protocol of a kind, despite not being as explicitly visible to the users unlike the protocols described by Mckinlay et al. (1994). In fact, in the CMC tasks in the present study the turn management system that seemed to develop - in other words, the participants waiting after turns whether someone starts writing - was quite similar to the turn management system present in the F2F setting. That is, waiting for someone to start writing reminds the system of F2F interaction where the person who starts speaking gets the turn (if I highly generalize). However, in CMC this management protocol is hindered by the delays in place in the system and how the participants in most cases cannot see when someone else starts writing until the system informs of it, if it even does so. This would suggest that CMC tasks seem to benefit from an explicit turn management system and that lacking such a system, learners attempt to extend the tools and systems in place in the more familiar spoken conversation setting to CMC.

Turn management ties in to one of the issues the participants raised regarding problems expressing one's opinion due to uncertainty in when it is appropriate to write and whether one should wait for others to finish before writing their reply, and the (perhaps consequent) feeling of the conversation not being quite as fluent as the spoken conversation. It is quite evident that such participants had trouble with the the turn-taking system in the task - or rather, the lack of a clear way of distributing turns in the computer-mediated conversation environment. As described in the sections on turn-taking in both spoken interaction and CMC, CMC lacks the immediacy of spoken conversation: turn construction is hidden from all the other participants except the one who is constructing the turn, and only once the turn is ready and sent to the others can they see its content. By contrast, in spoken

conversation turn construction happens in real time and the other participants have access to the content as it is being constructed - self-selection as the next speaker, then, is quite simple. In CMC, however, self-selection is not that easy - in fact, it is not even possible to select a next speaker but rather a future poster, as explained by Garcia and Jacobs (1999). The participants who reported having had trouble with knowing when it was proper to post their message, then, were having trouble with this system of self-selection and not having a definite way of 'reserving' the next turn - instead, they have to contend with reserving only a turn somewhere in the future. Combined with the lack of an explicit system for turn management, this issue is only exacerbated.

Based on the participants performance - namely, their interaction amount and behaviour in the different tasks - three distinct groups emerged: those who took a very active role in the conversation and talked (or wrote) the most, those who were more passive and timid, and those whose performance and interaction levels were sharply divided between the tasks. This has a few implications. It appears that the more timid participants tend to take a more supportive role. While they interact very little, they still appear to at least try to participate with the use of single-word units to show agreement and alertness, or summarising a topic that the group has discussed. At least one of the participants belonging to this 'Timid' group cited not having anything new or original to add to the conversation as the reason behind their participation level. As such, summarising seems a very natural tool for such a person to participate in the conversation despite lacking any new ideas to bring forth. With this in mind, certain strategies could be used to encourage participation and interaction from such participants, such as explicitly choosing them as the next speaker by asking them to, for example, summarise their what has been decided so far. This is something, however, that a teacher would have to take into account in task design, so that the task is such that the teacher themselves can play a role

in actively getting the more timid participants to participate. Relying on the more active participants to play this role would most likely be too unreliable, as they might not be aware of the issue.

The Divided group, where the the participants had high interaction in one task and low in the other, is an example of how seemingly 'good' performance in one type of task or medium does not necessarily transfer directly to another task or medium. While it is difficult to make a strong generalisation out of a group of this size, some careful observations can at least be made. Out of the three participants who were placed into this group, two had high interaction levels in the spoken task while one had the opposite situation. More often, then, active participation in the spoken task did not necessarily entail active participation in the CMC task, although again, with a small sample size nothing definite can be said. The reasons the participants cited for their performance were quite varied, as was previously discussed. One participant, Helen, cited everyone else having the same ideas as her in the CMC task and that she did not have anything original for input, while Dana, the other low CMC participation participant explained with having difficulties in coming up with new topics and that the group settled on a consensus quickly. For these two, then, having trouble coming up with something new and relevant to say was the reason behind low word and turn counts in the CMC task - problems they clearly did not have while speaking. In a way, the third member of this Divided group, Gina, had a similar reason for her low participation in the spoken task. For her, the reason she did not participate greatly in was that she was disinterested in the topic and knew almost nothing about it, along with her feeling like she had no adequate vocabulary to address the issues that the other task group members raised. Here, again, the issue seemed to in the end be the lack of having anything to add to the conversation, which seems like a logical and natural reason for someone to stay silent in a conversation. However, what is notable here is that none of the three felt

compelled or comfortable enough to nonetheless participate in the conversation or perhaps ask the other participants for more information when they found themselves lacking. What was also missing, overall, was any kind of meta talk. In other words, all the participants seemed to be focused on solving the task and did not engage in any other type of talk or, indeed, talk about the task or the task situation. This could have been simply because everyone was taking the task solving quite seriously and did not want to digress it in any way, or that the participants were not familiar enough with each other or the atmosphere of the group was not compelling for such interaction to happen.

In both groups the person who spoke the most during the spoken task – in other words had the most words overall and consequently the highest average words per turn count (see table 3, table 4) – was not the individual who used the most turns. The same holds true also for group B's CMC task. Thus it seems, then, that those who used the most turns did so because they employed shorter turns and so had more time to take those turns, and mode of communication did not seem to affect this behaviour. It is difficult to draw any definite conclusions from this, although it is possible that high turn count simply is due to the high turn count participants being such that they want to appear like they are present and actively listening and participating and thus end up using many single-word units and generally shorter turns to show this, while those with slightly lower turn counts participate to the content of the talk more actively and thus end up with lower turns that are longer in length.

As was previously established, the school world is increasingly digitising itself, and digital media are already prevalent in the lives of most language learners. Furthermore, with the advent of the COVID-19 pandemic, much of schooling - including language lessons on all levels of teaching - have been forced to move online and thus into a computer-mediated setting, with both voice chat and written chat

as the platform of interaction. As such, it follows that investigating how learners interact with each other and solve tasks in a computer mediated setting, something that they quite potentially will be doing during language lessons, for example, is highly worthwhile and important. In uncovering learner tendencies in CMC interaction, it is possible for teachers, for example, to better design and plan their lessons and activities to maximise language learning, and to better help learners who might perform poorly in such a setting.

The most certain conclusion that can be drawn from the present study's data is that there were no instances where the learners engaged in collaborative dialogue or negotiation of meaning, at least not in the sense and scope that Swain (1985, 2005) defined it. Accordingly, no LREs were identified in the output of the participants in any of the task. It is difficult to arrive at a certain conclusion as to the reason behind this. One possibility is that, being advanced students of English starting their MA thesis, the participants are skillful enough that no instances where the language needs to be discussed or the meaning of something said has to be negotiated on arise. At the same time, it is also possible that since the participants are advanced learners of English studying in a university, the participants did not want to admit that they did not understand something another participant said or brought up. A single answer to the questionnaire question 'Were there moments where you didn't understand what someone was saying? Did you try to solve such a situation in any way?' supports this theory of a participant not wanting to admit they did not understand something: "The topic was quite difficult, so I didn't understand some terms that others used. I didn't try to solve the situation, because I didn't want to sound stupid.". However, it should be noted that this person was the only one who mentioned not wanting to admit an instance of misunderstanding and as such the evidence is not conclusive. Mostly, the participants reported no situations where they did not understand something, and when such a moment occurred, the

participant was able to infer the meaning from the context of the talk or what someone said a little later.

It is also worthwhile to consider the limitations the present study had. Firstly, while I found the amount of participants quite adequate for the purpose and scope of this thesis, more participants and thus more task groups would allow for a more varied approach and would allow one to make surer and more definite statements from the data. For example, more groups would have allowed for controlling such variables as task solving and starting order, how much does getting comfortable with solving a task in a group affect interaction as well as the issue many participants had with confusion with turn-taking rules in CMC - in other words, with more groups comparisons could have been made where for some groups turn-taking rules are established beforehand in the CMC task while for others they are not. Secondly, some limitations could be found in the CMC task and setting. While it did not drastically limit the analysis, the timestamp precision of the online chat system used for the CMC task having been minutes instead of seconds did not allow for some more in-depth look at how long participants used to post messages, how long did pauses last in the conversations et cetera. Furthermore, according to what the participants noted in in the questionnaire, the CMC task seemed to have been easier than the spoken task. Bringing the difficulty on par with the spoken task, which seems to have been sufficiently difficult, would have allowed for even more analysis opportunities and elicited even more varied interaction in the CMC task.

Finally, with the limitations and the findings of the present study in mind, there are some suggestions and ideas for further study that became apparent. Again, as currently the COVID-19 pandemic has forced much of teaching to move online, many students interact with their peers and teachers via some kind of online voice or text chat. As such, including solving a task via online voice chat seems like a very natural and crucial addition to the tasks being compared, allowing one to compare spoken

interaction in F2F and online contexts. This would be an important investigation to do, so as to make sure that level of teaching remains the same despite the changed medium of interaction. Further investigation into text-based CMC interaction is also warranted. A point of interest in this could be, for example, whether students who do not like speaking or perform otherwise poorly in a spoken setting prefer the written CMC setting and perform better in it. Furthermore, with regards to the confusion with turn-taking rules in the CMC task the participants had, future studies should be done where the participants are explicitly told to either come up with a turn-management system for the task, or they are provided with one. Systems for managing turn allocation in CMC setting were discussed previously, and some research has been done by, for example Mckinlay et al. (1994). Implementing such a turn allocation method to the present study's setting could prove useful, especially considering that Mckinlay et al. (1994) is quite dated. A comparison study between CMC and spoken interaction similar to the rpesent study, but with a system in place to capture turn construction in the CMC task, like in the case of Markman (2005) would also be warranted to better capture how mode affects turn construction and where learners might have trouble.

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6 Appendices

Appendix 1. Finnish summary

Tämän tutkimuksen tarkoituksena oli selvittää, miten oppijat käyttäytyvät ryhmässä tapahtuvissa ongelmanratkaisutilanteissa eri kommunikointimoodeissa: kasvokkain ja tietokonevälitteisesti. Digitalisaation edetessä muun muassa kouluilla on paine lisätä erilaisia digitaalisia menetelmiä opetukseen.

Tutkimuksen aineiston pääanalyysikeinona toimi keskusteluanalyysi. Erityisenä mielenkiinnon kohteena oli se, miten keskustelun osalliset jakavat vuoroja keskenään, ja miten nämä vuorottelusysteemit erosivat keskustelumoodien välillä. Sacks, Schegloff ja Jefferson (1974) kuvailivat järjestelmän, jonka avulla puhutussa keskustelussa vuorosysteemi rakentuu. Malli koostuu kahdesta komponentista: vuoron rakennekomponentista (turn constructional component, TCU) sekä vuoron jakamiskomponentista (turn allocation component, TAC). TCU voi koostua lähestulkoon mistä tahansa kielellisestä yksiköistä kuten sanasta tai lauseesta ja vuoro voi koostua useasta TCUsta. TCU on myös yksikkö, joka voi toimia kokonaisena vuorona sekä täten myös vuoron päätepisteenä. Jokainen päätepiste taas voi toimia mahdollisena vuoron muutoskohtana - toisin sanoen vuoron päättyessä on mahdollisuus, että joku toinen osallistuja ottaa seuraavan vuoron.

Vuoron jakamiskomponentti taas koostuu eri tavoista, joilla osallistujat päättävät siitä, kuka puhuu seuraavaksi. Tekniikat voidaan jakaa kahteen kategoriaan: nykyinen puhuja valitsee seuraavan tai seuraava puhuja valitsee itse itsensä. Nykyinen puhuja voi valita seuraavan esimerkiksi osoittamalla seuraavalle puhujalle suoran kysymyksen tai mainitsemalla heidän nimensä. Itse itsensä valitseminen taas tapah-

tuu yleisimmin niin, että itsensä valitsija yksinkertaisesti aloittaa puhumaan tilanteessa, jossa edellinen puhuja ei eksplisiittisesti valinnut seuraavaa puhujaa. Tietokonevälitteistä keskustelua varten Sacksin, Schegloffin ja Jeffersonin (1974) järjestelmä vaatii joitain muutoksia. Garcia ja Jacobs (1999) esittelivät tutkimuksessaan, miten systeemiä pitää muokata, jotta se kuvaa tarkemmin tietokonevälitteistä interaktiota. Merkittävin ero puhuttuun interaktioon on se, että osallistujat eivät voi tarkalleen päättää sitä, mihin kohtaan keskustelua heidän viestinsä päätyy (Garcia ja Jacobs 1999, 346). Tietokonevälitteisessä kommunikaatiossa osallistujat eivät myöskään pääse käsiksi toisten vuoronrakennukseen, vaan näkevät ainoastaan valmiin vuoron eli viestin, joka lähetetään alustalle. (Schonfeldt ja Golato 2003, 244). Tästä syystä esimerkiksi TCUt eivät ole potentiaalisia vuoronvaihtopaikkoja, ainoastaan valmiit viestit (Schonfeldt ja Golato 2003, 248). Samoin vuoro ei varsinaisesti vaihdu tietokonevälitteisessä kommunikaatiossa, ainoastaan mahdollisuus saada viesti näkyville. Myös vuoronjakamiskomponentti eroaa perinteisestä vuoronvaihtelusysteemistä: nykyinen puhuja voi valita seuraavan puhujan sijaan vain tulevan puhujan, sekä seuraavan puhujan itsevalinta toimii vastavuoroisesti myös niin, että itsevalinta takaa vain tulevan viestinlähettämisen, ei välittömästi seuraavaa vuoroa tai viestiä (Garcia ja Jacobs 1999).

Data tutkimukseen kerättiin kymmeneltä suomalaisen yliopiston englannin laitoksen opiskelijalta. Heidät jaettiin kahteen viiden hengen ryhmään, ja kumpikin ryhmä suoritti kaksi tehtävää: yhden kasvokkain puhuen ja toisen tietokonevälitteisesti internetissä keskusteluhuoneessa, jossa kommunikointi tapahtui kirjoittamalla. Tietokonevälitteisestä tehtävästä otettiin talteen käydyn keskustelun logi ja käsiteltiin sellaisenaan. Kasvokkain suoritettu tehtävä videoitiin ja tämän lisäksi äänitettiin. Äänitys takasi hyvän äänenlaadun kun taas videotallenteelta varmistettiin, että litteroinnissa oli helppo varmistaa kuka minäkin hetkenä puhui. Tehtävät olivat aina samat kullekin moodille: kasvokkaisessa moodissa osallistujien piti muodostaa oma

valtio ja päästä yhteisymmärrykseen sen rakenteesta ja säännöistä kun taas tietokonevälitteisessä moodissa ryhmän piti päättää, mitä tehdä miljoonan euron lottovoitolla sillä ehdolla, että vain kymmenen prosenttia oli mahdollista jakaa ryhmän kesken. Tehtävien lisäksi kukin osallistuja täytti kyselyn, jossa tiedusteltiin heidän tuntemuksiaan siitä, miten tehtävien suorittaminen tuntui ja oliko heillä tai heidän ryhmällään ongelmia.

Tehtävistä saatu data analysoitiin keskusteluanalyysin avulla. Analyysin perusteella osallistujat jaettiin ryhmiin heidän suoritustensa perusteella: aktiiviset interaktoijat, epävarmat, jakaantuneet sekä keskiverrot. Aktiiviset interaktoijat sisälsi kolme osallistujaa: Catherine, Fiona ja Anna. Catherine puhui ryhmänsä kasvokkaisessa tehtävässä eniten ja kirjoitti toiseksi eniten tietokonevälitteisessä tehtävässä. Catherine myös aloittaa puhutun tehtävän ja hänen vuoronsa ovat verrattain pitkiä, erityisesti tehtävien loppupuolella. Fiona puhui myös eniten oman ryhmänsä kasvokkaisessa keskustelussa, sekä aloitti tietokonevälitteisen keskustelun. Anna suoriutui melko keskiverrosti puhutussa tehtävässä, mutta kirjoitti ja käytti eniten vuoroja tietokonevälitteisessä. Myös Fionan ja Annan vuorot olivat verrattain pitkiä muihin osallistujiin verrattuna; aktiivisten interaktoijia yhdisti siis pitkät vuorot. Muita merkittäviä yhdistäviä tekijöitä oli ryhmäläisten aktiivinen agenttiuus keskusteluissa. He kaikki käyttivät taktiikoita, jotka aktiivisesti kuljettivat keskustelua eteenpäin, kuten kysymysten asettamista ja melko vahvoja deklaratiivisisten lausuntojen tekemistä, joilla he osoittivat oman mielipiteensä ja edistivät tehtävän ratkaisua.

Arkojen ryhmään päätyi kaksi osallistujaa: Elisa ja Iris.Tämän ryhmän jäseniä yhdisti se, että heidän osallistumisensa oli hyvin varovaista: tietokonevälitteisessä tehtävässä Elisa käytti 9 vuoroa ja kirjoitti vain 20 sanaa ja Iris 5 vuoroa ja 32 sanaa, ja kasvokkaisessa tehtävässä Elisa käytti 16 vuoroa ja puhui 51 sanaa sekä Iris 15 vuoroa ja puhui 126 sanaa. Vaikka Elisan suoritus oli hieman selkeämmin arempi

kuin Iriksen, oli molempien käytöksessä ja kielenkäytössä tiettyjä yhteneväisyyksiä joiden vuoksi molemmat valikoituvat Arkojen ryhmään. Molempien voi nähdä ottaneen tukevan roolin keskustelussa: he osoittivat mielenkiintonsa ja osallistumistaan yhden sanan yksiköillä kuten "yeah"ja "yup"ja niin edelleen, sekä käyttivät vuorojaan siihen, että he tekivät yhteenvetoja siitä, mitä aikaisemmin oli sanottu tai mihin ryhmä tähän asti oli päätynyt. Näiden funktio oli kuljettaa keskustelua eteenpäin vaatimatta kuitenkaan, että puhujien täytyi keksiä mitään sinänsä originaalia sanottaavaa.

Tutkimuskysymysten kannalta Jakaantuneiden ryhmä oli erityisen mielenkiintoinen. Tähän ryhmään päätyivät ne osallistujat, joiden tehtävien väliset suoritukset erosivat toisistaan merkittävästi. Käytännössä siis toisessa tehtävässä osallistuja oli aktiivinen ja toisessa ei. Tähän ryhmään kuului Helen, Dana sekä Gina. Helen osallistui innokkaasti ja aktiivisest kasvokkaisessa tehtävässä mutta taas tietokonevälitteisessä tehtävässä hänen osallistumisensa oli hyvin vähäistä. Kasvokkaisessa tehtävässä Helenin rooli oli hyvin reaktiivinen eikä hän tehnyt aloitteita, ja esimerkiksi kysymykset puuttuivat hänen kielenkäytöstään kokonaan. Tietokonevälitteisessä tehtävässä Helen käytti vain neljä vuoroa, jotka kaikki koostuivat siitä, että hän osoitti tukensa jonkun mielipiteelle. Samankaltainen tilanne oli Danalla, joka käytti kymmenen vuoroa ja 30 sanaa tietokonevälitteisessä tehtävässä ja 54 vuoroa ja 320 sanaa kasvokkaisessa tehtävässä. Muilta osin, tosin, Danan kielenkäyttö erosi melko paljon Helenistä - Dana oli paljon aloitteellisempi kasvokkaisessa tehtävässä ja käytti ahkerasti kysymyksiä. Gina vuorostaan osallistui hyvin vähäisesti puhutussa tehtävässä, kun taas tietokonevälitteisessä tehtävässä hänellä oli tehtäväryhmänsä korkein sanamäärä ja toiseksi suurin vuoromäärä. Gina kuitenkin erosi käytökseltään Arkojen ryhmän Elisasta, esimerkiksi, sillä Gina yritti pienestä vuoromäärästään huolimatta tuoda omia ehdotuksiaan ja ajatuksiaan esille. kasvokkaisessa tehtävässä taas Ginan käytös oli hyvin lähellä aktiivisten interak-

toijien kielenkäyttöä: hän johdatti kesksutelua eteenpäin, kysyi kysymyksiä ja teki ehdotuksia.

Keskivertojen ryhmään putosivat viimeiset kaksi osallistujaa. Tämän ryhmän jäsenillä oli monia ominaisuuksia, jotka olivat ominaisia muidenkin ryhmien jäsenille. Kuitenkaan ne eivät olleet keskivertojen jäsenille niin ominaisia, että heidät olisi voinut sijoittaa muihin ryhmiin. Siksipä he päätyivät omaan ryhmäänsä. Molemmilla tämän ryhmän jäsenellä, sekä Jaylla että Bertalla, vuoro- sekä sanamäärät asettuivat myöskin vahvasti keskiarvon alueelle. Molemmat käyttivät hyvin laajasti jo muista ryhmistä tuttuja taktiikoita, kuten kysymyksen asettelua, yhteenvetämistä sekä lyhyitä yhden sanan yksiköitä osoittaakseen sitä, että he kuuntelivat ja seurasivat keskustelua.

Osallistujien kesken oli siis melko suurta hajontaa siinä, miten he käyttäytyivät keskustelumoodien välillä. Merkittävälle osalle moodilla ei ollut kovin suurta vaikutusta: kielenkäyttö ja osallistumismäärä oli joko yhtä korkea tai alhainen sekä kasvokkaisessa että tietokonevälitteisessä tehtävässä. Kuitenkin otannasta löytyi myös kolme ihmistä, joiden käytökseen ja suoritukseen moodilla oli merkittävä vaikutus. Vaikuttaakin siltä, että oppijan suoriutuminen yhden tyyppisessä moodissa ei takaa sitä, että hänen suorituksensa olisi konsistentti toisenlaisessa moodissa tehdyn samankaltaisen tehtävän kanssa. Tietokonevälitteisestä moodista monet osallistujat nostivat esiin myös yhden merkittävän ongelman: osallistujat olivat epävarmoja siitä, mitkä olivat vuorottelun säännöt tässä moodissa, ja niinpä vaikuttivat yrittävän käyttää puhutun keskustelun sääntöjä. Tämä ei usein kuitenkaan toiminut, kuten Garcia ja Jacobs (1999) totesivat - tietokonevälitteisessä kommunikaatiossa ei jaeta niinkään vuoroja vaan tilaisuuksia lähettää viesti. Niinpä kirjoittamisen aloittaminen ei sinänsä takaa vuoroa, vain mahdollisuuden lähettää viesti, kun taas puhutussa keskustelussa puhumisen aloittaminen takaa vuoron. Niinpä jatkotutkimusta, jossa osalle osallistujista annetaan ennaltamäärätty tapa kontrolloida,

kuka saa kirjoittaa, tarvitaan.