



HAL
open science

The impact of Social Networks on students' oral Fluency : The Case of Two Francophone Erasmus + students

Katia Makhlouf

► **To cite this version:**

Katia Makhlouf. The impact of Social Networks on students' oral Fluency : The Case of Two Francophone Erasmus + students. Humanities and Social Sciences. 2021. dumas-04213849

HAL Id: dumas-04213849

<https://dumas.ccsd.cnrs.fr/dumas-04213849>

Submitted on 21 Sep 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

**The impact of Social Networks on students' oral Fluency: The Case of Two
Francophone Erasmus + students**

Katia Makhoul

Department of English, Université Paul Valéry
W212AN5: Mémoire de recherche Master I

Prof. Pascale Leclercq and Prof. Elisa Sneed German

September 2021

Abstract

The purpose of the current study is to examine the role of non-linguistic factors in language development in a Study Abroad (SA) context. It investigates the nature of learners' social networks and their impact on the L2 development by measuring their fluency. Ten interviews of two Francophone learners of English, who had one academic year in Ireland, were analysed. The aim is to highlight the importance of social contacts and how they can influence oral proficiency either positively or negatively. At the end, after analysing the interviews and two graphs about students' language proficiency, both qualitative and quantitative results were obtained. These results show that having social contacts with people of the same nationality makes the SA experience less beneficial and students do not really improve their L2 oral fluency. On the contrary, students who socialise only with people of different nationalities, practise their L2 more, thus, they become more fluent.

Key words: Social networks, Fluency, Study abroad,

Contents

1. Introduction	2
2. Literature Review.....	3
2.1.1. Social Networks.....	3
2.1.1.1. Definitions.....	3
2.1.1.2. Types of Social Networks.....	4
2.1.1.3. Measurements of Social Networks.....	6
2.1.4. Second Language Socialisation.....	8
2.1.5. Social Networks and L2 Development in a Study Abroad (SA) Context.....	9
2.2. Fluency.....	11
2.2.1. Definitions.....	12
2.2.2. Measurement of Fluency Gain.....	13
3. The Study.....	16
3.1. Method Section.....	16
3.1.1. Participants.....	16
3.1.2. Data Collection.....	17
3.1.3. Data Coding and Analysis.....	18
3.1.3.1. Social Networks.....	18
3.1.3.2. Fluency Analysis.....	19
4. Results and Discussion.....	21
4.1. Fluency Development and the Impact of social Networks.....	21
4.2. The Participants' Social Networks while in a Study Abroad.....	23
5. Limitations of the Study and Implications for Future Research.....	27
6. Conclusion.....	27
References.....	29
Appendices.....	34

1. Introduction

From an early age, first language (L1) acquisition develops thanks to the members of the family then to the members of the society. It is the same case for the second language (L2). People develop their L2 oral production more quickly if they are able to practice it with people who master that language especially with natives. For this reason, many learners opt for going to the country of the target language to have access to direct contact with the native people in order to be more fluent and acquire some nativeness.

From the 1990s, Study Abroad (SA) constituted the context of a lot of second language acquisition (SLA) studies (e.g., Davidson, 2007; Kinginger, 2009). Most of them aimed at evaluating the effect of SA and comparing the learners' L2 proficiency development before and after the SA experience. Thanks to these studies, researchers noticed the existence of individual variation from one student to another. For this reason, more studies have since sought to find out the constitution of the learners' social networks and the way they socialise with the host society (e.g., Federico de la Rúa, 2008; Coleman, 2013a). Other studies (e.g., Wiklund, 2002; Dewey et al., 2004; Segalowitz and Freed, 2004; Isabelli, 2006; Wang, 2010) related the learners' L2 development to their social interactions with their new acquaintances.

In the present paper, fluency is chosen to be the indicator to assess the L2 development of the two selected Erasmus learners that we assumed had two distinctive profiles. In order to highlight the existence of a link between L2 fluency development and social networks, on one hand, the participants' utterance fluency development is analysed using specific numerical measurements. In the other hand, we analysed the composition of their social networks (i.e. their socialisation process in their new environment) thanks to the discursive analysis of their interviews and graphs.

This thesis is divided into four main sections in addition to the introduction and the conclusion. First, we will give a brief overview of literature on previous studies concerned with fluency and social networks in a SA context. Then, section three presents the research questions and explains methodology. It deals mainly with the presentation of the selected participants, the procedures of data collection and analysis. Section four demonstrates and discusses the obtained results from our study in order to find answers to the research questions. Section five presents the limitations of the study and suggests ideas for further research.

2. Literature Review

The current chapter reviews relevant literature concerned with second language acquisition and study abroad. Being fluent is related, according to Kormos (2006) and Leonard and Shea (2017), to automaticity. Leonard and Shea state that “automatic processes are those that require no or limited attention, effort, or control and can be the result of conscious practice” (3). In the same context, Kormos (2006) explained that learners are fluent when they are able to use the linguistic rules in an automatic way combined with memorized units.

Thus, fluency is speaking in a natural way without making effort or hesitations and it is a concrete, observable evidence that can inform us about the speaker’s L2 development. For this reason, in the current study, fluency is adopted as an indicator to measure the progress of L2 learners while abroad thanks to the Erasmus + program. Therefore, this chapter is divided into two parts. The first part is devoted to second language socialization and social networks. The second part reviews the different findings related to fluency, especially in a SA context.

2.1. Social Networks

Since the present study examines the effect of social networks on L2 development after a SA, it is necessary to review some literature related to social networks. We will attempt to go from general to more specific and to relate social networks to SLA.

2.1.1. Definitions

The word “network” is not always used to refer to social interaction. It was first used in this context by Barnes (1954) who said the following:

Each person is, as it were, in touch with a number of other people, some of whom are directly in touch with each other and some of whom are not. Similarly each person has a number of friends, and these friends have their own friends; some of any one person’s friends know each other, others do not. I find it convenient to talk of a social field of this kind as a *network*. Earlier I used the term *web* [...] however, it seems that many people think of a web a something like a spider’s web, in two dimensions, whereas I am trying to form an image for a multi-dimensional concept. (43-44)

Thus, Barnes referred to the connections and contacts that people have between each other using the word network. In fact, social networks were initially used in applied linguistics to investigate bilingual and L1 acquisition (Coleman, 2015; Wiklund 2002).

Concerning L1 acquisition, many studies, like the one of Cochran et al. (1990), showed the influence of social networks (schoolmates) on children’s success at school and on the development of their language skills.

Milroy L. and Milroy J. (1992) claimed that “A social network may be seen as a boundless web of ties that reaches out through a whole society, linking people to one another, however remotely.” (5). In other words, a social network consists of unlimited interconnected relations between people of a given society. In this case, we can link this definition to the social network that students can make when they are in a SA context. When they are in the host society they start to make friends who allow them to meet other ones and meeting new people can occur in different contexts.

2.1.2. Types of Social Networks

This part is devoted to reviewing the different categories that can be found in social networks. It will help us to figure out the different kinds of networks that students in a study abroad can encounter.

First, Milroy (1987a) made a distinction between what she calls “the weak first-order” and the “second-order” networks. The former is used to characterize “those persons with whom *ego* directly and regularly interacts” (Milroy L. and Milroy J. 5). In other words, in this network, an individual himself has created contact with a given member of a community. We can relate this kind of network to what Mitchell (1969) calls “ego-centred network”. Coleman (2015) said that it is “characterised by degree of reciprocity, intensity and durability” (41). The latter is related to “the ties to whom ego is linked through others” (Milroy L. and Milroy J. 5). In short, it means having new contacts thanks to the existing ones, like becoming friends with one’s friend. Thus, thanks to the first-order ties or networks one can get new acquaintances.

Second-order ties are also “associated with close-knit networks” (Milroy L. and Milroy J. 9), or with Granovetter’s (1973) “weak ties”.

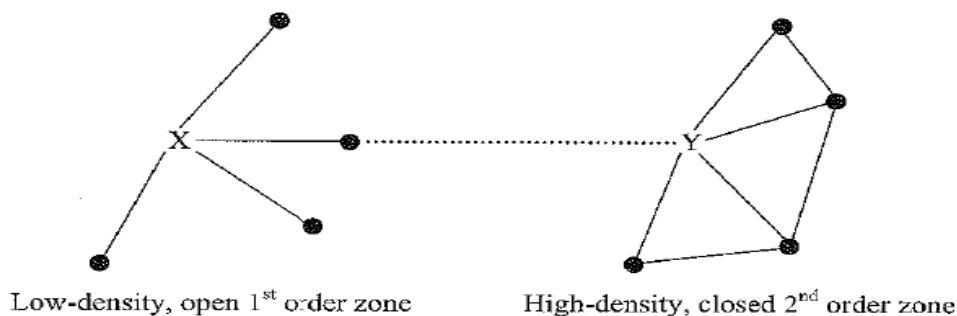


Figure 1: First density network showing first and second order zones (Milroy 48).

Milroy L. and Milroy J (1992, 5) noted that anthropologists distinguished two personal networks, namely the “structural” and the “interactional” ones. They explained that the former

is concerned with “structural properties such as density” and the latter is related to “interactional features such as the multiplexity, history, durability, frequency, and intensity of ties” (5).

Isabelli (2006) explains that “when learner X participates in a social network in which native-speaker Y (friend of a friend) is part of a second order zone that is closed, then his or her chances of observing and participating in prolonged interaction will then be considerably increased” (237).

In the study abroad context, Coleman (2015) claims that “weak ties enable sojourners to develop as individuals” (42) since it is the first step to mark its existence in a given community. Granovetter (1973) asserts that “weak ties [...] are indispensable to individuals’ opportunities and to their integration into communities. Strong ties, breeding local cohesion, lead to overall fragmentation” (1378).

At the end of this part, it is crucial to mention that there may be factors that do not encourage the process of building social networks, especially for learners while in a study abroad.

Coleman (2015) draws our attention to the fact that “homesickness, visits home and from home, frequent online contact, anxiety, and fatigue may reinforce existing strong networks, and risk limiting new, initially weak ties” (43)

Coleman (2015) studied the “who”, “how many” and “how deeply” of a new social network while in an SA context. He puts people with whom a student can get in contact while in a residence abroad in different categories. Therefore, Coleman (2013a) represents social networks while in an SA in concentric circles. He says that, as we can see in the figure below, in the first period, students favour meeting friends of the same nationalities or “co-nationals”. Then, they can widen their scope of friendship to include friends from different nationalities “other outsiders” and even native people of the host country “locals”, who can have different mother tongues, depending on “circumstances (including sojourn duration) permit and their own motivations, attitudes, actions and initiatives allow” (Coleman 44).

This is the case of student C (from the Prolingsa project). Once she arrived at her residence in Cork, during the first semester, she had more contact with her two French roommates. Later, she met a Chinese girl from her class then an Irish girl during her second semester.

Nevertheless, this way of constructing social networks does not always take place in the aforementioned order. For example, student M had contact with a co-national roommate but at the same time, she was in contact with German and Indian roommates. Later on, in the second semester, she met some locals like her Irish roommate and some Irish friends from the karate club.

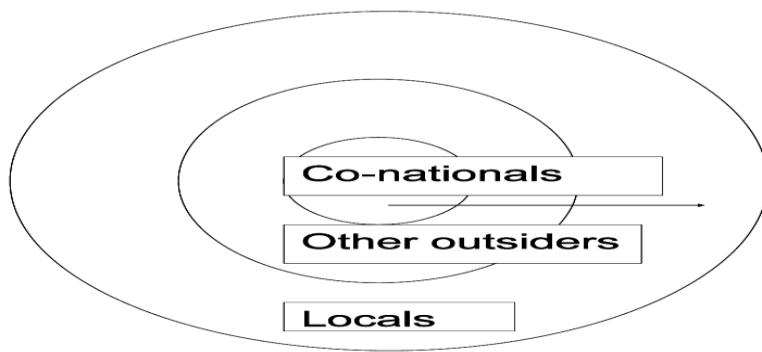


Figure 2. Coleman’s concentric circles representation of study abroad social networks

Coleman (2015) specified that in the inner circle, communication happens generally using the L1. For the middle circle, interaction might happen using L2 or a lingua franca which often consists of English. As for the outer circle, it depends; the three languages mentioned in the two first circles might be used to communicate (45).

2.1.3. Measurements of Social Networks

To find out the number of social contacts, researchers have used different tools. Wiklund (2002) sought to delineate the social networks of Swedish immigrant students (who have their mother tongues other than Swedish) using an interview, a questionnaire, and written compositions. The aim of Wiklund was to assess the role of social networks in the L2 proficiency development. In her research, she proceeded to categorize of the students’ social networks by dividing them into groups (circles of friends, neighbors, relatives, etc), she looked for the activities the participants did with each member of a group then put them in different categories according to their domains (religion, school, artistic activities, etc).

Wiklund (2002) focused on both the density and multiplexity (the multiple role relationships) of participants’ social networks. She asked the participants to identify the number of people they interacted with and the kind of activities they performed, and the language used, without neglecting to study the frequency of their activities. Thus, doing different activities with the same people, in a different context, results in multiplexity of networks. Wiklund (2002) highlighted the fact that “While *density* is based on whether A knows B, C, D or E, or if they all know each other, multiplexity estimates in what capacity A knows B,C,D or E, as, for example, a relative, a friend, a workmate, or a neighbor” (57).

Dewey et al. (2012) examined connections between self-reported social network development, language use, and speaking development of 204 learners of Japanese who

studied abroad in Japan. They used a version of the Study Abroad Social Interaction Questionnaire (SASIQ) which contains 13 questions. They aimed to know, first, the number of native Japanese friends that these students had contact with. Second, the intensity i.e. “how strong a relationship” (120) and “to rate their friendship level with each member of their social network listed on an eight-point scale ranging from acquaintance (1) to very close friend/confidant (8)” (120). Third, they sought also to know the “durability” of the social networks i.e. “the degree to which a social relationship is activated – how often a person associates with an individual” (120). By combining their study and the one of Dewey, Belnap, and Hilstrom (2013) and Dewey et al. (2012) we conclude that “gains in language may be related to social network development” (126) because in both studies intensity, which is one of social networks measure, “was a positive predictor of gains in speaking during SA” (126). Then, it is worth mentioning the “The Language Contact Profile” study made by Freed et al. (2004). Indeed, by “the language contact” they mean the contact and the use of the L2 especially with native people. They presented a questionnaire that assembled many variables such as the average time students spent speaking the target language, a range of linguistic functions, their accommodation, etc. In the majority of SA studies, researchers used the Oral Proficiency Interview (OPI) which was developed by the American Council on the Teaching of Foreign Language (ACTFL). In addition, there was the ‘S’ (speaking) and ‘R’ (reading) proficiency ratings of Foreign Service Institute (FSI) testing procedure based on individual interviews. This procedure was used in Carroll (1967) where the FSI interview was administered to 2784 college seniors majoring in foreign languages and the obtained results are considered as “absolute proficiency ratings” (Carroll 133).

As far as the current study is concerned, we will attempt to find out what social networks of the selected students (C and M) constituted of during their Erasmus+ experience. We believe that we can attain this objective by analyzing the students’ answers to the questions that were asked during the interviews conducted by the investigators from the PROLINGSA research project. The investigators of this project conducted semi-guided interviews in order to elicit learners’ views on their social networks (constitution, evolution of network, etc.) rather than a quantitative evaluation of social contact (which they deemed artificial). Consequently, in the current study a discursive analysis is needed to analyse the PROLINGSA participants’ social networks. In addition, the participants were asked to draw graphs that describe the development of their L2 proficiency. So, these graphs, too, will be analyzed.

2.1.4. Second Language Socialization

In the present study, we propose to review the language socialization framework as the most appropriate approach to encompass the highly variable elements and interactive nature of second language acquisition (SLA) in the SA context.

Duff (2008b) stated that language socialization studies “pay particular attention to social, cultural, and interactional contexts in which language and other kinds of knowledge are learned” (xiii). According to Sapir (1933), quoted in Ochs and Schieffelin (2011: 159), “language is a great force of socialization probably the greatest that exists”. This quote shows the importance of the link which exists between language and socialization. Thus, we can understand that one cannot integrate with people of a given society without mastering their language. Early studies, like the one of Schieffelin and Ochs (1986), tackled the language socialization process in relation to children. They explained how children are influenced by adults in the way they acquire the different norms of a given society, from an early age, thanks to language. Indeed, communication and engagement with people of a particular society are important in the process of language socialization. They added that language is a means used during this process and at the same time socialization contributes to language development; “language socialization encompasses socialization *through* language and socialization *into* language” (Ochs and Schieffelin 4). Ochs and Schieffelin’s (2014) study is indeed concerned with children’s language socialization but we can also apply it to L2 learners especially the ones who embark into a study abroad program since they find themselves in a new social environment where the language they are learning (L2) is the one they have to use to communicate with people of the host society.

In the domain of language acquisition, socialization is necessary and influences the learning process. Kinginger (2009) asserted that “language learning is as much a process of socialization as it is of acquisition” (156). Just like children learn from their surroundings, L2 learners, especially when in a study abroad setting, are also influenced by the interaction with people of the host society. Thus, those learners can be considered as apprentices in a “community of practise” which is defined by Eckert and McConnell-Ginet (1992) as “an aggregate of people who come together around mutual engagement in an endeavour” (464). This means that learners will practice in different places in the homestay while doing everyday activities in which they engage while abroad.

Second language socialization (SLS) is defined by Duff (2007) as:

The process by which novices [students] or newcomers in a community or culture gain communicative competence, membership, and legitimacy in the group. It is a process that is mediated by language and whose goal is the mastery of linguistic conventions, pragmatics, the adoption of appropriate identities, stances (e.g., epistemic or empathetic) or ideologies, and other behaviors associated with the target group and its normative practices (310)

From Duff's definition, we understand that students who study in a foreign country develop their communicative competence through interaction with members of the host community. In addition, language socialization goes hand in hand with language development, and contact with the host community may foster new behaviors and a possible reshaping of learners' identity.

In addition, Wang (2010), relying on second language socialization (SLS) perspective, examined the impact of social interactions on the L2 development with an emphasis on the learners' identity in SA context. Wang (2010) stated that "the context of SA, in which a student joins new language communities, makes an ideal setting for the study of SLS" (57). Therefore, thanks to the SLS, one can find out the different variables that contribute in learners' linguistic gains in SA context.

Besides, learners' identity is one of the factors that influences their socialization with the host society. Wang admitted that "resistance to socialization can result from identity factors such as ethnocentrism, a sense of superiority, a sense of inferiority, or a perception of being marginalized" (58). Add to that, Wang 2010 supported the need for "qualitative socialization approach" (59) for SA studies. He concluded his article by observing that "a qualitative method is most appropriate for a comprehensive understanding of various aspects of SA experiences" (60).

For such reasons, besides the quantitative method, the qualitative one is also adopted in the present study to find out the participants' social contacts.

2.1.5. Social Networks and L2 Development in a Study Abroad (SA) Context

This part will seek to review the studies that have been done in the SA context but only those concerned with second language acquisition.

Freed (1995) confirmed that the "context of learning [...] has been the focus of considerable research" (4). Freed et al. (2004) divided the learning context into six categories:

- (a) exclusively technological academic contexts, (b) uninstructed learning settings for those residing in the native speech community, as well as (c) formal academic (in the country or "at home") language classrooms, (d) IM settings that

integrate formal classroom (content or language oriented) and out-of-class learning opportunities, and (e) SA contexts with potentially unlimited opportunities for use of the target language. (279-280)

Therefore, in the present work, the corpus of the research is found in the last category i.e. the SA context in the field of second language acquisition (SLA).

Freed (1995) asserted that Study Abroad is “an umbrella term” (5) that encompasses studies under different “programs [that] combine language and/or content learning in a formal classroom setting along with immersion in the native speech community” (5).

According to Peterson et al. (2007), study abroad is defined as “education abroad that results in progress toward an academic degree at a student’s home institution” (p.176). Thus, the positive impact of SA on the learners’ language improvement is always expected.

Freed et al. (2004) made a comparative study between three learning contexts, namely; the AH, IM, and the SA contexts. One of their “unanticipated finding was that the students in the IM, rather than in the SA, context were those who made the greatest gains in oral fluency” (294). That is why they emphasized the need to investigate deeper to know “how much time they [students] actually spend using the L2” (294)

When we hear that somebody has gone to study abroad we assume that he/she will come back with better language competencies especially regarding speaking thanks to the contact with native speakers of the target language like the case of French students who go to English-speaking countries.

Many studies, among others, Kinginger (2008), dealt with the topic of social networks in a study abroad context. They shed light on the relation between social contacts and language development and tackled other variables at the same time. Some focused on individual differences, i.e. learners’ personal identity (Isabelli-Gracia, Brown, Plews, and Dewey (2018)). We can also mention the study of de Federico de la Rúa (2008) which explored the real interactions that an Erasmus student may encounter. She raised the important question: “how and with whom do Erasmus students cultivate relationships?” (2). Federico de la Rúa aimed to find out if Erasmus students manage to make friends during a SA, and if they do, with whom: locals, international students, etc. This is also the aim of the current study, which seeks to explore the influence of social contacts on the linguistic development (measured through oral fluency) of the two selected Erasmus Francophone students.

Isabelli (2006) stated that the study of social networks “can be used to account for linguistic development” (231). In her study, Isabelli (2006) showed the impact of communicative

interactions with natives on L2 development and pointed out the need for research that takes into account the sociolinguistic dimensions. She explored the impact of learners' motivation and attitude in constructing social networks while in a SA. She reviewed Milroy's categories of social networks and showed that in a SA learners may form "multiplex networks with other members of their L1 group and do not interact with the host culture" (235). Thus, in such a structure learners are not going to practice the target language. On the other hand, she demonstrated another Milroy's structure which is the "low density, open personal network structure" (236). She asserted that such a network is typical for an SA learner "who maintains contact with several native speakers" (236). In this case, the learners' conversations topics are very limited and simple. But through time, if learners get to create multiplex networks with natives, they will be able to communicate about a variety of topics and that helps them to "reach a close approximation of the L2 faster" (236). She gave detailed results about each of her four participants' social networks and attitudes. In the end, she claimed that students who "maintained extended social networks [...] are evidence that informal, out-of-class contact can greatly enhance acquisition" (257), but from the beginning, she made it clear that being in the country of the target language may not be enough to be a fluent speaker. She said that "learners may not magically become fluent speakers simply by being surrounded by the target language" (Isabelli 231).

The study of Davidson (2007) is concerned with Russian students in a SA. The focus was given to the linguistic gains and ignoring the environment of the study i.e. social interaction. The linguistic gains are presented in percentages. Thus, the precise quantitative data is absent. Pinar (2016) pointed out, in a part devoted to social networks and interaction with native speakers, that social networks allow greater interaction with native speakers which makes them able to communicate well. Wang (2010) noted that "to achieve meaningful linguistic gains through out-of-class contact and make the sojourn experience worthwhile, SA students need to have regular and substantive interactions with native speakers" (51). Therefore, Wang (2010) encouraged the sojourners to have more contact with natives to make their experience a successful one.

2.2. Fluency

Fluency is considered as one of the main criteria used to evaluate someone's oral mastery of a given language and to measure language skills. It is more often used regarding speaking although it's also used in evaluating writing (Housen and Kuiken 2009). The present study will focus exclusively on speaking fluency. This part will be divided into three sections. The first section will review the different definitions of fluency, the second one will deal with

the measurements of fluency, and then the last one will go through the presentation of the learning context.

2.2.1. Definitions

The quality of being fluent in a given language corresponds, according to Lennon (1990), to “the highest point on a scale that measures spoken command of a foreign language” (389). The first definition seems more restricted because it suggests a higher degree of competence: complete mastery of oral expression ability. A broader definition would be “a cover term for oral proficiency” or “one aspect of oral proficiency” (389).

Lennon (1990) claimed that “this sense is found particularly in procedures for grading” (389). In such a procedure, one is judged to be fluent if he/she sounds like a native-like speaker. In 1983, Pawley and Syder suggested the term “native-like fluency” (191) which they defined as “the native speaker’s ability to produce fluent stretches of discourse” (191). Lennon (1990) specified that in this narrow sense, similarity with native people is related to the rapidity of speech; ‘native-like rapidity’ (390). In a study conducted by Yager (1998) a group of native speakers was chosen as a benchmark to assess students’ fluency. He stated that “the criterion of nativeness to assess L2 samples may provide a more sensitive measure of L2 acquisition in informal contact” (902). In the same context, Richards et al. (1985) related fluency to nativelikeness by defining it as: “the features which give speech the qualities of being natural and normal, including native-like use of pausing, rhythm, intonation, stress, rate of speaking, and use of interjections and interruptions” (108). Thus, from this definition, we can understand that nativelikeness in the rate of speech is not enough but to sound like a native speaker, one needs to articulate and make pauses as the natives do. Segalowitz (2003) defined second language fluency as: “an ability in the second language to produce or comprehend utterances smoothly, rapidly and accurately” (384). Then, Segalowitz (2010) raised the issue of “fluency gap” to identify the absence of the ability to be fluent while using the L2. He claimed that to measure L2 fluency, one needs to take into consideration the performance in the L1. Thus, one the L1 should not be neglected.

Early studies showed that being a fluent speaker in L2 is a complex process that needs to be executed speedily. Goldman-Eisler (1968) stated that in general “the complete speech act is a dynamic process, demanding the mobilization in proper sequence of a series of complex procedures and is the temporal integration of serial phenomena” (6). Rehbein (1987) made these procedures clearer by mentioning two of them, namely; the procedures of planning and uttering that need to take place at the same time. He asserted that to be fluent “means that the

activities of planning and uttering can be executed nearly simultaneously by the speaker of the language” (104).

More recently, Segalowitz (2010) studied fluency in a more detailed and scientific way. He claimed that fluency is composed of three constructs: cognitive fluency, utterance fluency, and perceived fluency (165). First, cognitive fluency can be linked to what is mentioned before by Rehbein (1987). It is the abstract process or the quick mental effort of planning what is to be said; “the speaker’s ability to efficiently mobilize and integrate the underlying cognitive processes responsible for producing utterances with the characteristics that they have” (Segalowitz 165). The two last fluencies are more concrete. Utterance fluency is concerned with the way we produce different elements of an utterance (letters, words, etc) or the final product after the cognitive process; “the features of utterances that reflect the speakers’ cognitive fluency” (165). As for the perceived fluency, we can relate it to Lennon’s (1990) nativelikeness judgment or “the inferences listeners make about speakers’ cognitive fluency based on their perceptions” (Segalowitz 165). In other words, it is the step when we test our fluency according to the reaction of others when we communicate with them. The factors of pauses and hesitation are also related to fluency. Skehan (1996) defined fluency as “the capacity to produce language in real time without undue pausing or hesitation.” (quoted in Thornberry 3). In addition, Richards et al. (1985) claimed that fluency comprises “the features which give speech the qualities of being natural and normal, including native-like use of pausing, rhythm, intonation, stress, rate of speaking, and use of interjections and interruptions.” (108).

Consequently, in the current study, the aforementioned characteristics of fluency will be taken into consideration to study the fluency development of students C and M’s (fluency) before, during, and after their SA.

2.2.2. Measurement of Fluency Gain

Fluency studies through time have demonstrated that fluency can be assessed in two different ways either subjectively or objectively. First, concerning the subjective way, as it is indicated in Kinginger (2009);

There are studies that are based on the subjective rating of student progress have asked the students themselves (e.g., Meara 1995) [self assessment], native speakers (e.g., Yager 1998), and experienced teachers (e.g., Lennon 1995) to judge the outcomes of study in terms of language development. [and Kormos and Dénes (2004)] (40).

Thus, in this technique, it is the listener’s perception that is favoured. Second, objective fluency measurement is generally based “on quantitative analyses of transcribed recordings” (40).

It is right that the self-assessment method is less objective but it is “representative of students’ perceptions, which in the end determines a study abroad program’s success and survival, perhaps more so than proficiency tests” (Badstübner and Ecke 42). This method is not limited to just asking the participants to talk about the improvement of their target language. For instance, in the PROLINGSA project (2018), the researchers ask their participants who went on a SA to draw graphs to describe the development of their English (L2) from the beginning till the end of the SA experience. Thus, this is another method of self-assessment which reinforces the participants’ verbal declarations.

Second, the objective measurement consists in gathering empirical data by recording the participants, for example through interviews.

Many studies have opted for this kind of fluency study, namely; the ones of, Brecht et al. (1995), Skehan (2003), Freed et al. 2004, among others, where they used measurements based on the speakers’ production.

Some other studies used both techniques, i.e. the subjective and the objective ones, as in the study of Lennon (1995) who used “subjective evaluations by experienced teachers” then “complemented by quantitative analysis of transcribed recordings” (Kinginger 40). Indeed, this quantitative analysis can be made using different measures. One of the early studies is the one of Raupach (1980) who incited researchers working on fluency to move from descriptive analysis to more detailed ones i.e. to go deeper in studying temporal variables which “allow us to determine different degrees of fluency” (269-270). The temporal variables are mainly concerned with counting syllables and pauses.

Hilton (2009) noted that “temporally defined notion of fluency” is “characterized by a speaking rate of from 130 to 200 words per minute (2-3 words per second)” (645).

Lennon (1990) measured fluency by representing the “temporal element” by calculating the number of words said per minute, the total of unfilled pauses, and the mean of both the silent and the filled pauses. He also measured the “dysfluency markers” i.e. the repetitions and the self-corrections (403-404). Then, Towell et al. (1996) named this measurement as the mean length of run (MLoR). Kormos and Dénis (2004) noted that the previous studies dealing with fluency measurement agreed that “the best predictors of fluency are speech rate, that is, the number of syllables articulated per minute and the mean length of runs , that is, the average number of syllables produced in utterances between pauses of 0.25 seconds and above” (148).

Cucchiarini et al. (2002) claimed that “rate of speech appears to be an excellent predictor of perceived fluency” because it incorporates both “the rate at which speakers articulate the sounds and the number of pauses they make” (2863)

One of the goals of Segalowitz and Freed (2004) is to investigate the impact of context and social contacts on oral fluency. They proceeded in the measurement of the utterance fluency in terms of four temporal measurements: speech rate, mean run length containing no silent pauses or hesitations greater than 400 ms, mean run length containing no filled pauses (e.g., *um*, *ah*), and longest run containing no silent or filled pauses. (175)

Kormos (2006), in her book “Speech Production and Second Language Acquisition”, devoted a chapter for fluency in L2 speech production where there is a part that overviewed fluency measures. She noted that “the best predictors of fluency are *speech rate*, that is, the number of syllables articulated per minute, and the *mean length of runs*, that is, the average number of syllables produced in utterance between pauses ≤ 0.25 ” (163). Then, she added that the measures that are concerned with the calculation of time taken to produce the speech, “Phonation-time ratio” are also proved to be good measures.

Wood (2007) noted that “fluency is generally studied as a feature of temporal variables of speech” (210). That is to say, measuring “rate or speed of speech, pause phenomena, and length of runs between pauses” (Wood 211). [De Jong et al. \(2013\)](#) defined three aspects of fluency: “breakdown fluency”, “speed fluency” and “repair fluency” (4). Breakdown fluency is measured by finding the “mean syllable duration [...] by dividing total speaking time (total time excluding silent pauses) by total number of syllables”, breakdown fluency “was computed as mean length of silent pauses [...] and mean length of pauses”, “In addition, number of silent pauses per second speaking time and number of non lexical filled pauses per second [...] were also computed” (7-8). They noted that “the lower bound of silent pauses was 250 ms” (8). As for repair fluency, it “was computed as number of repetitions per second speaking time and number of corrections per second speaking time in L1 and L2” (8).

We can notice from the two studies; Segalowitz and Freed (2004) and De Jong et al. (2013) that the threshold for silent pauses is not the same (this point will be further discussed in the methodology section). The former opted for 400 milliseconds and the latter 250 milliseconds. Thus, such differences make us wonder which threshold is the most suitable. Wood (2009) claimed that “anything less than 0.3 seconds [300 ms] is easily confused in a spectrogram with other speech phenomena such as the stop phase of a plosive sound, and anything longer can omit significant pause phenomena” (46). In contrast, De Jong and Bosker (2019) conducted a very detailed study where they tried different thresholds from 20 ms to 400 ms.

At the end of the study, they gave a reliable result, that is “the traditional cut-off point of 250 ms is a good choice” (20). Thus, it is better not to use a threshold of less or more than 250 ms to get good results and that is to be applied for the present study.

3. The study

The present study is conducted using a mixed methods approach, combining both quantitative and qualitative methods. It is based on a longitudinal dataset which contains oral production data from two French students, collected five occasions during an academic year in Ireland.

Considering the importance of SA, the current study attempts to provide answers to the following questions:

- Q1: Which social networks do those two students create while abroad?
- Q2: Can their social networks constitute an explanatory factor for fluency development?

3.1. Method section

This section will be devoted to inform our readers about the organisation of the current study. Precisely, it will provide information about the selected participants and demonstrates how the needed data was collected, coded and then analysed.

3.1.1. Participants

Our participants are two female francophone students. For the sake of keeping them anonymous, they will be called C and M. C was 18 and M was 19. Both of them went on an Erasmus + exchange to Cork in Ireland. C was enrolled in her second year of undergraduate studies in Applied Foreign Languages (English + Chinese) and M was in her third year of undergraduate studies in Applied Foreign Languages (English + Spanish). Both of them were students at Université Paul-Valéry (UPV), Montpellier, France. Concerning their level of English proficiency, the two students took, before going abroad, a version of the Oxford Quick Placement Test. C scored lower intermediate level and M advanced. Finally, it was the first time either had spent a long period, nine months, in an English-speaking country, and were immersed in an English-speaking setting.

The selection of the two participants was not random. In fact the PROLINGSA project features five participants. First, we proceeded to a quick study of all the participants' interviews. We chose C and M because they have different profiles. Despite the fact that both of them were studying in the same city (on the same campus), their characters and

motivations are distinct and they had different speaking styles and types of interactions with people, which makes them interesting for our study.

Table 1: Overview of the two participants

Pseudonym	Age	Oxford Quick Placement	Occupation	Accommodation
C	18	B1	LEA student (English Chinese)	Student accommodation (a shared flat)
M	19	C1	LEA student (English Spanish)	Student accommodation (a shared flat)

3.1.2. Data collection

As mentioned before, the data that is used in the present study is taken from the PROLINGSA project (Leclercq, Edmonds and Sneed German, 2021). In this corpus, their data is collected using semi-directed qualitative filmed interviews. Babbie and Mouton (2011) define a qualitative interview as “an interaction between an interviewer and a respondent in which the interviewer has a general plan of inquiry but not a specific set of questions that must be asked in particular words and in a particular order” (289). Indeed, interviews are particularly useful for eliciting in-depth and accurate information thanks to the direct contact with the participants. The participants were interviewed five times during the period from June 2018 to June 2019. The first interview took place before going abroad in June 2018. The second, third and fourth interviews occurred when C and M were in Ireland in November, February and March respectively. Finally, the last interview was conducted after they came back to France in June 2019. The interviewers asked open-ended questions about different topics¹ including the participants’ social networking. Concerning the length of the interviews, C’s five interviews lasted 102mins05s and M’s interviews 84min11s.

Table 2: The length of the interviews

C	102mins 05s
M	84mins 11 s

3.1.3. Data coding and analysis

¹ The whole set of interview scripts is available on <https://hdl.handle.net/11403/prolingsa>.

After recording the interviews the next step was transcribing them in CLAN (Computerized Language ANalysis) using the CHAT transcription conventions (MacWhinney, 2000). Each recording was transcribed by a member of a team of transcribers then verified by another expert transcriber. In addition, each transcription is attached to its video file which allows us to see the facial expressions and the gestures of our participants. Thus, the videos reinforce the meaning of the words and can inform us about the psychological state of our two participants. In the present paper, in order to answer the research questions, two types of analyses will be conducted:

1. Fluency analysis (quantitative, objective measure)
2. Discourse analysis bearing on the interview extracts which mention social networks (qualitative measure focusing on what the participants say, and how they say it).

3.1.3.1. Social networks

One of the PROLINGSA project's objectives is to obtain information about students' social contacts. It is thus possible to identify, from the transcriptions, the questions that were asked in order to know the people students had contact with, in which context and in which language. Of course, what is useful for the present study are C and M's answers to these specific questions. In addition, our participants, at the end of their study abroad, they were asked to draw graphs to describe the development of their English proficiency from summer 2018 until their return to France in summer 2019. When they were asked to interpret their graphs, both of them mentioned the influence of their social contacts. Indeed, in the present work, much importance is given to the students' self-report to know the way they socialize when they were in a SA. In this context, Wang (2010) said that: "learners' documentation, reflections, and recounts of what happened in their SA lives and within their minds are crucial to the understanding of their SLS [Second Language Socialization]" (59).

Relying on the study of Dewey et al. (2012) that used their participants' self-report, the gathered information will be used to draw a picture of the two participants' social networks. Therefore, as in the study of Wiklund (2002), our objective is to depict the approximate number of people that our participants interact with, in which domain and the language they used. We will attempt to highlight the activities they did while abroad because this will give us an idea about the intensity and multiplexity of their social networks.

Also, based on Milroy & Milroy's framework, we aim to depict the extent and type of relationships in the participants' networks.

At the end, we come by qualitative, conversational data that needs to be interpreted in order to provide answers to the research questions.

Indeed, the focus will be given to the following questions that deal with social contacts:

From interview 2: “Can you name the three people you spend the most time with?”

Interview 3: “Can you tell me a little bit about each person, as well as what languages you use with each one? Also what is your connection is to each person?”

Interview 4: Last time, we asked you about your friends. This time, could you talk to us about any other people you speak with regularly? Shop owners, landlord, university staff? Tell me about them and your interactions with them. What languages do you speak with them?

Interview5: “Are you satisfied with the contacts you managed to establish with native speakers of English?”

In addition, the participants’ self-assessment and the graphs they have drawn will be useful tools to find out whether students C and M are satisfied with the number and quality of contacts they had been using the English language.

3.1.3.2. Fluency Analysis

Since the purpose of the current work is to analyze L2 development in an objective way, we decided, relying on Segalowitz (2010), to measure utterance fluency.

It is concerned with studying the physical features of speech production. We aim to include all the measures that were used in the previous studies that were presented in the literature review section (Cucchiaroni et al., 2002; Segalowitz and Freed 2004; Kormos and Dénis, 2004; Wood, 2007). We proceeded to the analysis of fluency based on the study of Kormos (2006) because it gathers the measurements of both the temporal and the hesitation variables. Temporal variables i.e. the speech rate (SR), it was calculated as: total number of syllables divided by total time (including both silent and filled pauses) and multiplied by 60 (sec) and the mean length of runs (MLoR) that was calculated as: total number of syllables divided by total number of runs (IPUs). For the hesitation variables, we have to calculate four items: First, the number of silent pauses (NoSP) per minute. It was calculated as: total number of silent pauses divided by total time of the extracted segments in the transcript (including both silent and filled pauses) and multiplied by 60 (sec). Second, the mean length of silent pauses (MLoSP) which is the total length of silent pauses divided by total number of silent pauses. Third, the number of filled pauses (NoFP) per minute was calculated as: total number of filled pauses divided by total time of the extracted segments in the transcript (including both silent and filled pauses) and multiplied by 60(sec). Finally, the sixth one is the mean length of filled

pauses (MLoFP) that was calculated as: total length of filled pauses divided by total number of filled pauses.

Table 3: Fluency measurement and their calculations

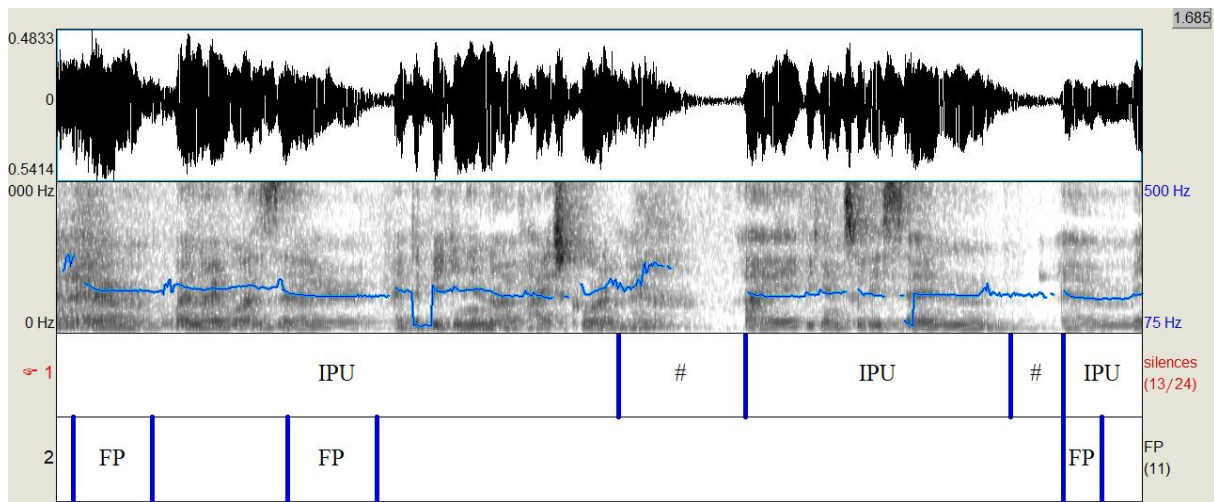
The measurement	Calculation
1.Speech Rate (SR)	$Tn \text{ of syllables} / \text{total time} * 60$
2.Mean Length of Runs (MLoR)	$Tn \text{ of syllables} / Tn \text{ of runs}$
3. Number of Silent Pauses per min (NoSP)	$Tn \text{ of SP} / \text{total time} * 60$
4. Mean Length of Silent Pauses (MLoSP)	$Tl \text{ of SP} / Tn \text{ of SP}$
5. Number of Filled Pauses per min (NoFP)	$Tn \text{ of FP} / \text{total time} * 60$
6. Mean Length of Filled Pauses (MLoFP)	$Tl \text{ of FP} / Tn \text{ of FP}$

Tn: Total number Tl: Total length SP: Silent pauses FP: Filled pauses

Before proceeding to such calculations, the five longest sequences from each interview were selected because. The length of the sequences is important because the longer it is the more credible the results will be. At the end, we had 25 extracts for each participant (50 extracts in total). Then, the number of syllables for each selected sequence (excluding interviewer interventions) was counted using a syllable counter and corrected as needed.

Then, using the PRAAT software (Boersm and Weenink 2021) 5 audio-files were extracted from each of the participants' interviews. In total, we prepared 50 audio-files. Next, still with PRAAT, each audio-file was automatically annotated for "IPU" (inter-pausal unit), and for silences with the label "#" and hand corrected. Moreover, following Jong and Bosker (2013), it was assumed that setting the silent threshold at 250ms was the best choice to get reliable results and this is what is adopted for the present study. In fact to measure fluency, it is necessary to count the number of filled pauses. So, manually, we added a second tier which mentions the parts that contain filled pauses and labelled them "FP". Finally, all the annotations were verified because there are instances where it is the interviewer who speaks and not the interviewee so we had to label it as silence "#". Once the file was annotated, a PRAAT script gave us the duration and the number of IPUs, the silent pauses and of the filled pauses, in addition to the total duration of each extract. Such numbers are necessary for measuring of our participants' fluency.

Screen shot 1: An example of PRAAT annotation



4. Results and discussion

In the current study, it has been noticed that the two students (C and M) from the PROLINGSA project had spent most of their time with their roommates of different nationalities during their Erasmus+ sojourn in Cork (Ireland). Thus, social networks during a SA are not limited to members of the host society but also to students who came from different countries.

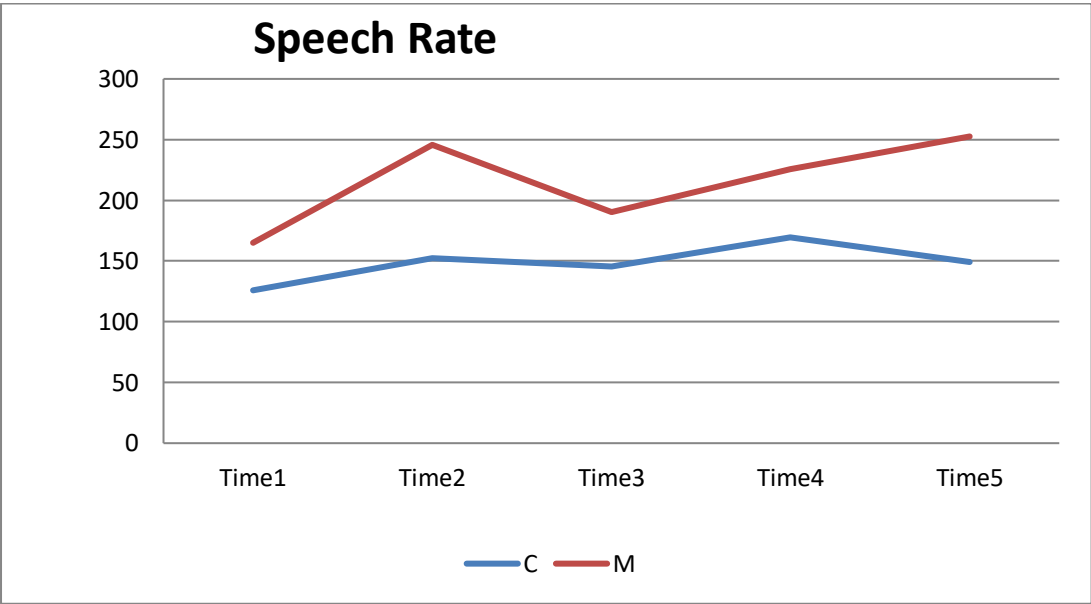
This section will be devoted to the presentation and the discussion of the obtained results after the analysis of our data. It portrays, first, the results of the objective measures i.e. the quantitative or the empirical data that is gathered after applying the fluency measurements and, second, the qualitative data derived from the analysis of C and M's answers of the questions and graphs (the parts that are related to social networks). This section will be composed of two parts: Fluency development and the impact of social networks and the results of the discursive analysis of the interviews that explores the participants' social networks while in a SA and.

4.1. Fluency development and the impact of social networks.

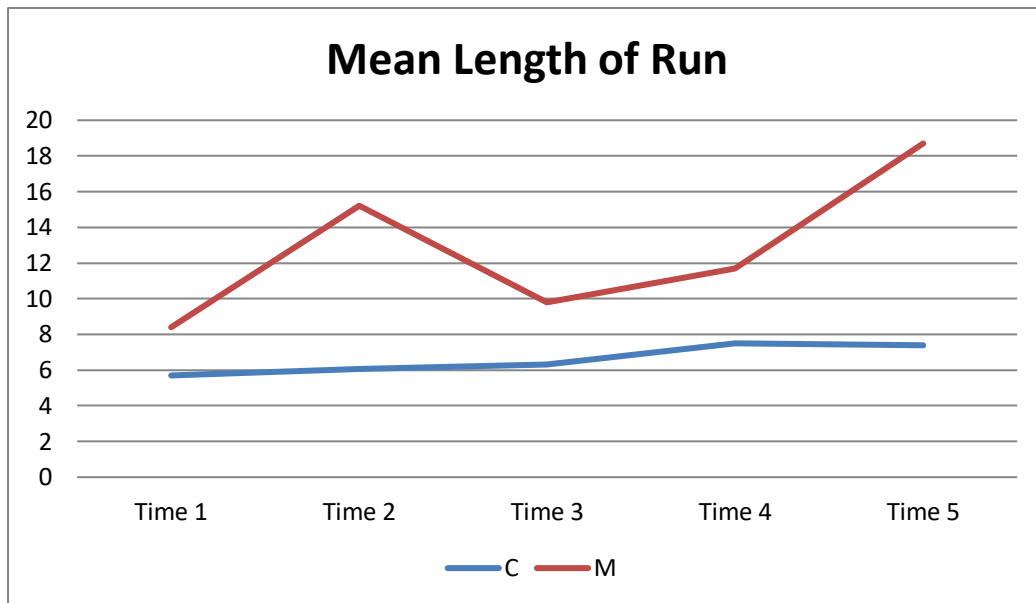
Table 4 presents the final results obtained after applying the fluency measurements. It shows measures that portray changes of C and M's fluency before, during and after their immersion experiences.

Table4: The results of the participants' fluency measurements

		Speech Rate	Mean length of runs	Number of Silent Pauses	Mean Length of Silent Pauses	Number of Filled Pauses	Mean Length of Filled Pauses
Time 1	C	125.9	5.7	19.4	0.33	6.08	0.50
	M	165.04	8.4	17.2	0.69	8.01	0.59
Time 2	C	152.3	6.07	23.8	0.73	2.8	0.50
	M	245.5	15.2	14.2	0.62	5.2	0.49
Time 3	C	145.6	6.3	21.4	0.73	7.9	0.67
	M	190.2	9.8	17.6	0.75	6.5	0.52
Time 4	C	169.5	7.5	21.06	0.75	5.7	0.57
	M	225.7	11.7	17.4	0.64	6.6	0.43
Time 5	C	149.2	7.4	17.9	0.70	6.9	0.68
	M	252.6	18.7	12.7	0.59	5.7	0.52



Graph1: Representation of speech rate development



Graph2: Representation of mean length of run development

First of all, it should be pointed out that the selected participants did not have the same English level even before the Erasmus + experience. M's level was more advanced. This is a likely explanation for why M's speech rate in time one (165.04) is higher than C's (125.9). The aim of the present analysis is to study C and M's fluency improvement and the factors that may influence it.

The results indicated an increase of the two temporal variables i.e. Speech Rate (SR) and Mean Length of Runs (MLoR) in time 2 for both C and M. For C, it increased from 125.9 to 152.3 and from 5.7 to 6.07. For M, it increased from 165.04 to 245.5 and from 8.4 to 15.2. Though there was an improvement for both participants, M made a more noticeable increases in these aspects from time 1 to time 2. Also, concerning the pause phenomena, the decrease of the Number of Silent Pauses (NoSP) and the Mean Length of Silent Pauses (MLoSP) signaled the development of fluency. This can be observed in M's statistics that decreased from time 1 to time 2 (from 17.2 to 14.2 and from 0.69 to 0.62 respectively). In an opposite fashion, C showed an increase in the pause phenomena which was a negative sign because according to Fillmore (1979), fluency is "the ability to talk at length with few pauses and to be able to fill the time with talk" (quoted in Kormos 155). Both the NoSP and the MLoSP increased from 19.4 to 23.8 and from 0.33 to 0.73 respectively. As a result, we observethat M's fluency in these two measures increased to a greater extent than C's. When it comes to the Number of Filled Pauses (NoFP), we notice a similar decrease for the two participants; from 6.08 to 2.8

for C and from 8.01 to 5.2 for M. As for the Mean Length of Filled Pauses (MLoFP), the statistics showed a stability for C with 0.50 both in time 1 and 2 and a decrease for M going from 0.59 to 0.49. We can relate this difference of fluency analysis results to the difference of social networks. When they arrived in Cork, M had contacts with people of different nationalities and she only used English to communicate with them. As for C, she used more French than English to communicate with her French roommates.

In time 3, we can observe an important decrease of both C and M's SR. Respectively, from 152.3 to 145.6 and from 245.5 to 190.2. Another decrease can be noticed in M's MLoR; from 15.2 to 9.8 but a quite stable result for C's MLoR. Thus, these results correspond to the participants' self report i.e. feeling negative about their proficiency development because of the 3 weeks break they spent in France. As for the four measures of the pause phenomena, C's NoSP decreased from 23.8 to 21.4. As opposite, M's NoSP increased from 14.2 to 17.6. Moreover, for the results that concern the filled pauses, we can notice an increase in the statistics for both participants.

From time 4 to time 5, the results show a quite different improvement. M's fluency statistics are more positive than the ones of C. M's SR and MLoR were both in progress with a noticeable decrease of the NoSP and the MLoSP. C's SR declined from 169.5 in time 4 to 149.2 in time 5. Thus, C's SR in time 5 is nearly the same as in time 3. Also, C's MLoR, along the 5 times, do not demonstrate a significant enhancement.

Therefore, these interpretations of the fluency analysis lead us to conclude that social networks may have an impact on students' fluency while in a SA context. The two selected participants had different socialising patterns and their fluency developed differently. Thus, based on the reviewed studies, we can assume that these two variables may be related.

In this way, we manage to answer the second research question of the present study. The selected participants become more fluent with a higher speech rate when they are in a continuous contact with English speakers and vice versa.

4.2. The participants' social networks while in a study abroad

Among the five interviews, only four of them were analysed because in the first interview C and M had not started their Erasmus + experience yet.

To start with, during the second interview that took place in Cork in November, C and M were asked to name the three people with whom they spent most time with.

C mentioned that she had more contact with her two French roommates and a Chinese girl from her class. Just before answering this question, when C spoke about her accommodation she said that she had an American and a Filipino roommates but she added that she had "a

great French roommate” and that “the American is so messy in the kitchen” and “so sometimes we 're[*] not agree with everything”. As for the second French roommate, C admitted that they were “really good friends” and after a month they became closer friends. There were also her Chinese classmates that she used to see four hours a week and with whom she communicated using English but they were just becoming friends. Thus, we deduce that there is a tight relationship or what is called by Milroy (1987a) “close-knit” social network between C and her French roommate, in the co-national of Coleman’s (2013a) social network circle. As opposite, C kept a distant with her surroundings of different nationalities. Thus, from this analysis we can deduce the strong intensity of C’s social network with her French roommates. In addition, the fact that she used the French language to communicate with them, suggests that there will not be much improvement in C’s oral fluency because of the lack of contact using the target language. This confirms what is said by Hyltenstam and Stroud (1990) that “individuals in a network influence each other linguistically, and closer the friendship, the more alike their language will be” (45 noted in Wiklund 57).

For the same question, M said that she had “three [...] roommates who are two German girls and one Indian girl”. This is what Coleman (2013a) characterised in his concentric circles as the “other outsiders”. Therefore, M spoke English all the time in the flat; “I always speak English in the flat”. Concerning the people she spent most of her time with, she said: “I spend a lot of time with Richie and Nicolas” who were two students from the same accommodation; one is German and the other is French. She characterised them as being her best friends. When the interviewer asked about the language she used to communicate with them, she replied that “the main language we speak is English” because most of the time the three of them were together and the German friend could not understand French. The third person is her boyfriend with whom she communicated virtually using French.

In February 2019, C and M had their third interview. One of the PROLINGSA interviewers asked each of them the following question: “Can you tell me a little bit about each person (you met), as well as what languages you use with each one? Also what is your connection to each person?”

C informed the interviewer that she had a new acquaintance, an Irish girl but her French roommate was still her best friend. When C was asked about her best social experience, she mentioned the night when she went to a pub with her French roommate. Therefore, we can notice the interaction features of C’s social network with her French roommate that were mentioned by Milroy and Milroy (1992 5). We can mention “durability” since they were

friends from the beginning of the year, “intensity of ties” because C preferred having her best social experience with her French Friend.

Concerning M’s social network, it was still composed of people of different nationalities and had more friends from a karate club. Despite the fact that both participants showed a decrease in fluency at T3 (as discussed previously), M’s language of everyday communication was still English.

In the fourth interview, in March 2019, the interviewer asked C and M about people they usually interacted with (not only friends). C said that she became closer to her American roommate and had more contact with her Chinese teacher. As a result, during this period, she started using more English. These factors may have contributed to the increase of C’s Speech Rate (SR) and Mean Length of Runs (MLoR) , respectively, from 125.9 and 5.7 in time 1 to 169.5 and 7.5 in time 4. As for M, she did not mention any changes in her social contacts. She still avoided spending time with French people but kept in touch with her French boyfriend. She tried to have contacts with native speakers (locals) but she could not. At the end, she added that she was not satisfied with her English. Despite her dissatisfaction, her SR displays a considerable increase from 165.04 in time 1 to 225.7 in time 4. The same is true for her MLoR that increased from 7.5 in time 1 to 11.7 in time 4.

In the last interview, C stated that if there was something that she would change in her Erasmus experience, it was to avoid meeting French people. C mentioned on the graph that she drew in June 2019 that her English proficiency went down during fall and winter.

She related this decrease of her English level to her new social atmosphere. She said: “my English level decreased during fall and a bit in winter because the first semester [...] many of my friends were French”. Therefore, clearly, she justifies her decrease of her L2 proficiency by the influence of her social contacts. M’s graph, too, showed a decrease in her English proficiency during Christmas recess (she was in France).

Then, from spring 2019 (time 4), according to the graph that she drew, we can deduce that there was an increase in C’s English proficiency. She justified this by saying that it was the result of the new contacts that she had with foreign people.

As for M, she admitted that although her social network was composed of English speakers (non-natives), she would prefer to have had more contacts with native English speakers. When the interviewer asked her about things that she would have done differently, M said: “I would have [...] stay[ed] more in touch with the friends I made during the first semester”. Then, she added: “&erm <i also may> like I really excluded my boyfriend from experience over the year”.

Still with M, it is important to highlight that, throughout all the interviews, she displayed a negative impression towards her Erasmus experience. Though, in the last interview, when the interviewers showed her a passage from the first interview, her facial expressions showed how much she was amazed by the high improvement in her L2 oral production. The following passages express well her amazement. She said: “I 'm really surprised. I think I didn't know how much I improved my confidence when I speak English”. Her graph, too, reveals a consistent increase of her English proficiency with an absence of a long period of decrease.

When C watched the extract from the first interview, she said that she was able to attain most of her objectives, i.e. talking about different subjects without hesitating and without thinking in French. Despite what C said about her Erasmus experience, we do not notice, from her facial expressions, the same satisfaction and amazement as the case of M.

After the discursive analysis of the interviews and the graphs, we come up with some conclusions. Thus, both participants relate either their positive or negative changes in their L2 proficiency to their social networks.

From the C and M's interviews and graphs we come to an answer to the first research question which is that social networks vary from one student to another and this makes their Erasmus experience a different one too. Students may have contacts most of their time with co-nationals using their L1 as the case of C or with people of different nationalities using the L2 and with an absence of contact with the natives as the case of M.

To sum up, C started socializing with French speakers, while M favoured an international crowd till the end of her Erasmus experience. Concerning C, by the end of the year, her social network comprised people of different nationalities but kept her close friendship with her French roommate.

Consequently, from the discursive analysis we deduce that changing the country is not enough to improve our L2; we should communicate using the target language otherwise the experience will not be a successful one. In this context Wilkinson (1998) highlighted that “the overseas experience of any length is too complex to be reduced to uniform promises of success and gain” (34).

From the gathered information, one can deduce the reason of the noticeable improvement in M's fluency thanks to the frequent use of English and her conscious attempt to avoid using her L1 in the target language environment. Moreover, it can be assumed that such a strong friendship between C and her French roommate and using L1 to communicate may be a factor that did not encourage a remarkable increase C's L2 oral proficiency to happen.

Thus, the present analyses suggests the existence of a great connection between social networks and the L2 fluency development.

5. Limitations of the Study and Implications for Future Research

The present work analyses the students' social networks in a SA context. The data that is used is taken from the PROLINGSA project that did not focus only on social networks. Thus, we believe that we could obtain better results with more details if there is a corpus that is specialised in social networks. Like some details about the students' everyday activities and the period of time spent with each person they meet every day to get information about frequency. Thus, the present study is just an attempt to throw light on the link that exists between students' fluency and their social contacts while in SA. Besides, we hope that, in the future, there will be researchers who will create a corpus that focuses only on social contacts using specific questionnaires, journals and interviews and with large number of participants that will provide more data about the learners' sociolinguistic, communicative and interactive competencies. In addition, future studies could deal with greater number of participants which will grant more in-depth quantitative and qualitative analysis.

In addition, future studies could go deeper in relating fluency with automacity theories which can give more detailed explanations about the conceptualization of fluency.

6. Conclusion

The present work attempted to present an objective study of students' fluency and to relate it to their actual use of the target language while they are abroad. Previous SLA studies (Wiklund 2002 and Dewey et al. 2012) made the link between social interactions and language proficiency, but no one has focused on fluency and at the same time provided quantitative results about French students who went in an Erasmus + experience to an English speaking country.

The present thesis is composed of four main sections in addition to the introduction and the conclusion. In order to have a theoretical basis, there is the section that exposes different previous research that dealt with social networks and fluency. Then, the section that described the methodology and the participants that were involved in the study. Finally, we find the section where the quantitative and the qualitative findings were presented and then interpreted in order to answer the research questions.

We attempted to report the social contacts of the two selected participants. We come to a conclusion that having different social networks, like Milroy's (1987a) "weak first-order" and the "second-order" networks and Coleman's (2013a) concentric circles, will result in a different language development. Therefore, we believe that the present study may contribute

in an improvement of the SA programs. Our objective is to attract those who organise the SA sojourns to orient students to be surrounded by speakers of the target language or to program activities that will allow them to meet only L2 speakers to increase interactions using the L2.

References

- Badstübner, Tina, and Peter Ecke. "Student Expectations, Motivations, Target Language Use, and Perceived Learning Progress in a Summer Study Abroad Program in Germany." *Die Unterrichtspraxis/Teaching German*, vol. 42, no. 1, 2009, pp. 41–49., doi:10.1111/j.1756-1221.2009.00034.x.
- Barnes, J. A. "Class and Committees in a Norwegian Island Parish." *Human Relations*, vol. 7, no. 1, 1954, pp. 39–58., doi:10.1177/001872675400700102.
- Babbie, Earl and Mouton, J. *The Practice of Social Research*, Oxford University Press: Cape Town, 2011.
- Boersma, P., & van Heuven, V. Speak and unSpeak with PRAAT. *Glott International*, 5(9-10), 2001, pp. 341–347.
- Brecht, Richard D., et al. "Predictors of Foreign Language Gain during Study Abroad." *Studies in Bilingualism*, 1995, p.p 37-66., doi:10.1075/sibil.9.05bre.
- Carroll, John B. "Foreign Language Proficiency Levels Attained by Language Majors near Graduation from College." *Foreign Language Annals*, vol. 1, no. 2, 1967, pp. 131–151., doi:10.1111/j.1944-9720.1967.tb00127.x.
- Coleman, James A. "Researching Whole People and Whole Lives." *Language Learning & Language Teaching*, 2013, pp. 17–44. doi:10.1075/llt.37.02col.
- Coleman, James,A. "Social Circles During Residence Abroad: What students do, and who with". *Social interaction, identity and language learning during residence abroad*, 2015, pp. 33-51. ISBN: 978-1-329-43044-0
- Cochran, Moncrieff. *Extending Families: The Social Networks of Parents and Their Children*. Cambridge University Press, 1990.
- Cucchiaroni, C., et al. "Quantitative Assessment of Second Language Learners' Fluency: Comparisons between read and spontaneous speech. *The Journal of the Acoustical Society of America*, 111(6), 2002, pp.2862–2873. <https://doi.org/10.1121/1.1471894>
- Davidson, Dan E. "Study Abroad and Outcomes Measurements: The Case of Russian". *The Modern Language Journal*, Vol. 91, No. 2, Wiley, 2007, pp. 276-280. <https://www.jstor.org/stable/4626014>.

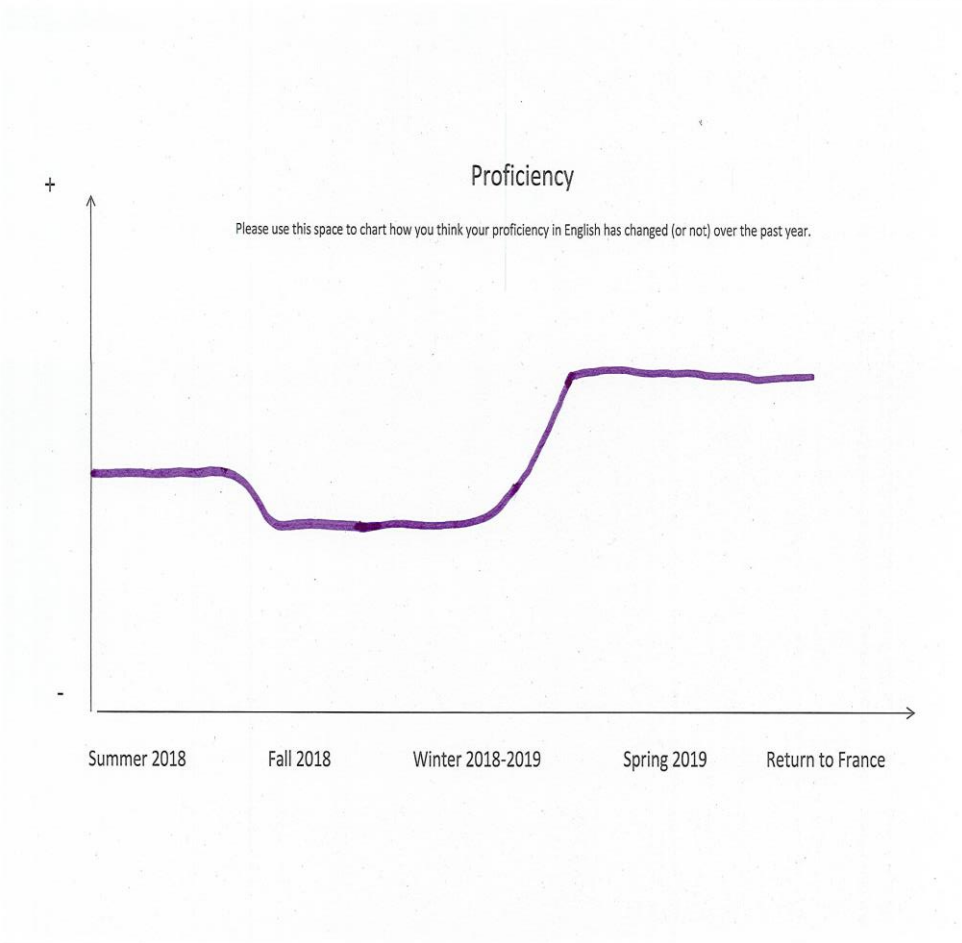
- De Federico de la Rúa, Ainhoa. "How do Erasmus students make friends?" In S. Ehrenreich, G. Woodman & m. perrefort (Eds.), *Stays abroad in secondary and higher education: Current research and practice*, 2008, pp. 89-103. Waxmann.
- De Jong, Nivjah H., et al. "Second Language Fluency: Speaking Style or Proficiency? Correcting Measures of Second Language Fluency for First Language Behavior." *Applied Psycholinguistics*, vol. 36, no. 2, 2013, pp. 223–243., doi:10.1017/s0142716413000210.
- De Jong, Nivjah. H., and Bosker, Hans. R. Choosing a threshold for silent pauses to measure second language fluency. In R. Eklund (Ed.), *Proceedings of the 6th workshop on Disfluency in Spontaneous Speech (DiSS)*, 2019, pp.17–20. <http://hdl.handle.net/11858/00-001M-0000-0015-0FB8-8>
- Dewey, Dan P., et al. "Japanese language proficiency, social networking, and language use during study abroad: learners' perspectives". *Canadian Modern Language Review*, 68, 2012, pp. 111-137.
- Dewey, Dan P., et al. "Social Network Development, Language Use, and Language Acquisition during Study ABROAD: Arabic Language LEARNERS' PERSPECTIVES." *Frontiers: The Interdisciplinary Journal of Study Abroad*, vol. 22, no. 1, 2013, pp. 84–110., doi:10.36366/frontiers.v22i1.320.
- Duff, Patricia. Introduction to Volume 8: Language socialization. In Patricia. Duff and Hornberger. Nancy. (Eds.), *Encyclopedia of language education: Language socialization*. 2nd ed., Vol. 8, 2008b, pp. xiii–xix. New York: Springer Science1Business Media LLC.
- Eckert, Penelope, and Sally McConnell-Ginet. "Think Practically and Look Locally: Language and Gender as Community-Based Practice." *Annual Review of Anthropology*, vol. 21, no. 1, 1992, pp. 461–488., doi:10.1146/annurev.an.21.100192.002333.
- Freed, Barbara F. "What Makes Us Think That Students Who Study Abroad Become Fluent?" *Studies in Bilingualism*, 1995, p. 123., doi:10.1075/sibil.9.09fre.
- Freed, Barbara F., et al. "Context of Learning and Second Language Fluency in French: Comparing Regular Classroom, Study Abroad, and Intensive Domestic Immersion Programs." *Studies in Second Language Acquisition*, vol. 26, no. 02, 2004, doi:10.1017/s0272263104262064.
- Goldman-Eisler, Frieda. *Psycholinguistics Experiments in Spontaneous Speech*. 1968, London: Academic Press.

- Granovetter, Mark. "The strength of weak ties". *American Journal of Sociology*, 1973, 78:1360-80.
- Housen, A., and F. Kuiken. "Complexity, Accuracy, and Fluency in Second Language Acquisition." *Applied Linguistics*, vol. 30, no. 4, 2009, pp. 461–473., doi:10.1093/applin/amp048.
- Hilton, Heather. "Annotation and Analyses of Temporal Aspects of Spoken Fluency." *CALICO Journal*, vol. 26, no. 3, 2009, pp. 644–661., <https://www.jstor.org/stable/10.2307/calicojournal.26.3.644..>
- Isabelli-García, Christina. "Study Abroad Social Networks, Motivation and Attitudes: Implications for Second Language Acquisition." *Language Learners in Study Abroad Contexts*, 2006, pp. 231–258., doi: 10.21832/9781853598531-013.
- Isabelli-García, Christina, et al. "Language Learning and Study Abroad." *Language Teaching*, vol. 51, no. 4, 2018, pp. 439–484., doi:10.1017/s026144481800023x.
- Kinging, Celeste. "Language Learning in Study Abroad: Case Studies of Americans in France." *The Modern Language Journal*, vol. 92, 2008, pp. 1–124., doi:10.1111/j.1540-4781.2008.00821.x.
- Kinging, Celeste. *Language learning and study abroad: A critical reading of research*. Palgrave Macmillan, 2009.
- Kinging, Celeste. (Ed.) *Social and cultural dimensions of language learning in study abroad*. John Benjamins, 2013.
- Kormos, Judit. *Speech production and second language acquisition*. Lawrence Erlbaum Associates, 2006.
- Kormos, Judit., and Dénes, Mariann. (2004). "Exploring Measures and Perceptions of Fluency in the Speech of Second Language Learners. *System*, vol. 32, no. 2, 2004, pp. 145–164. <https://doi.org/10.1016/j.system.2004.01.001>
- Lennon, P. Investigating fluency in EFL: A quantitative approach. *Language Learning*, 40(3), 1990, 387–417. <https://doi.org/10.1111/j.1467-1770.1990.tb00669.x>
- Leonard, Karen Ruth, and Christine E. Shea. "L2 Speaking Development during Study Abroad: Fluency, Accuracy, Complexity, and Underlying Cognitive Factors." *The Modern Language Journal*, vol. 101, no. 1, 2017, pp. 179–193., doi:10.1111/modl.12382.
- Macwhinney Brian, *The CHILDES project: Tools for analyzing talk* (3rd Ed.), Lawrence Erlbaum, 2000.
- Milroy, Lesley. *Language and social networks* (2nd ed.). Oxford: Blackwell, 1987a.

- Milroy, Lesley, and James Milroy. "Social Network and Social Class: Toward an Integrated Sociolinguistic Model." *Language in Society*, vol. 21, no. 1, 1992, pp. 1–26., doi:10.1017/s0047404500015013.
- Ochs, Elinor., and Schieffelin, Bambi B., "The Theory of Language Socialization". *The Handbook of Language Socialization*, Du-ranti, Alessandro et al. (eds), First Edition, Blackwell Publishing Ltd, 2011.
- Ochs, Elinor., and Schieffelin, Bambi B. "The theory of language socialization". *The Handbook of Language Socialization*, Du-ranti, Alessandro et al. (eds), Wiley Blackwell, 2014.
- Pawley, Andrew. and Syder, Frances H. Two puzzles for linguistic theory: Nativelike selection and nativelike fluency. In J. C. Richards & R. W. Schmidt (Eds.), *Language and communication*. 1983, pp. 191–226, Longman.
- Peterson, Chip, et al. "Defining Terms for Use in Designing Outcomes Assessment Projects". *A Guide to Outcomes Assessment in Education Abroad*. Bolen, Mell (Ed.), The Forum on Education Abroad, 2007, pp. 163–203.
- Pinar, Alex. "Second Language Acquisition in a Study Abroad Context: Findings and Research Directions." *Colombian Applied Linguistics Journal*, vol. 18, no. 2, 2016, p. 83., doi:10.14483/calj.v18n2.9480.
- Pascale Leclercq, et al. *PROLINGSA* [Corpus]. ORTOLANG (Open Resources and TOols for LANGUAGE), 2021, www.ortolang.fr, https://hdl.handle.net/11403/prolingsa.
- Raupach, Manfred. "Temporal Variables in First and Second Language Speech Production." *Temporal Variables in Speech*, 1980, pp. 263–270., doi:10.1515/9783110816570.263.
- Rehbein, Jochen. "On fluency in second language speech". *Psycholinguistic models of production*, Dechert and M. Raupach (eds.), Norwood, NJ: Ablex Publishing Corporation. 1987, 97-105.
- Richards, Jack, et al. *Longman dictionary of applied linguistics*. 1985, Longman.
- Schieffelin, Bambi. B., and Ochs, Elinor. *Language socialization across cultures*. Cambridge: Cambridge University Press., 1986.
- Skehan, Peter. "Task-Based Instruction." *Language Teaching*, vol. 36, no. 1, 2003, pp. 1–14., doi:10.1017/s026144480200188x.
- Thornbury, Scott. "Accuracy, Fluency, and Complexity: English Teaching Professional", no.16, 2000, pp.3-6.

- Segalowitz, Norman, and Barbara F. Freed. "Context, Contact, and Cognition in Oral Fluency Acquisition: Learning Spanish in at Home and Study Abroad Contexts." *Studies in Second Language Acquisition*, vol. 26, no. 02, 2004, pp. 173-199
<https://doi.org/10.1017/s0272263104262027>.
- Segalowitz, Norman. "Automaticity and Second Languages." *The Handbook of Second Language Acquisition*, In C. Doughty & M. Long (Eds.), Blackwell Publishers. 43,2003, pp. 382–408., doi:10.1002/9780470756492.ch13.
- Segalowitz, Norman. *Cognitive bases of second language fluency*, 2010.
- Towell, R., et al. "The Development of Fluency in Advanced Learners of French." *Applied Linguistics*, vol. 17, no. 1, 1996, pp. 84–119., <https://doi.org/10.1093/applin/17.1.84>.
- Wang, Chilin. Toward a Second Language Socialization Perspective: Issues in Study Abroad Research. *Foreign Language Annals_* vol. 43, No. 1. 2010.
- Wiklund, Ingrid. "Social networks from a sociolinguistic perspective: The relationship between characteristics of social networks of bilingual adolescents and their language proficiency". *International Journal of the Sociology of Language*, 2002, 153, 53-92.
- Wilkinson, Sharon. "Study Abroad from the Participants' Perspective: A Challenge to Common beliefs1." *Foreign Language Annals*, vol. 31, no. 1, 1998, pp. 23–39., doi:10.1111/j.1944-9720.1998.tb01330.x.
- Wood, David. Effects of focused instruction of formulaic sequences on fluent expression in second language narratives: A case study. *Canadian Journal of Applied Linguistics*, vol. 12, no. 1, 2009. pp. 39–57.
- Wood, David. "Mastering the English Formula: Fluency Development of Japanese Learners in a Study Abroad Context." *JALT Journal*, vol. 29, no. 2, 2007, p. 209., doi:10.37546/jaltjj29.2-3.
- Yager, Kent. "Learning Spanish in Mexico: The effect of informal contact and student attitudes on language gain". *Hispania*, 81(4), 1998, pp. 898–913.
<http://dx.doi.org/10.2307/345798>

Appendix 1: C's graph



Appendix 2: M's Graph

