# Influence of Biographical Factors on Individual Success in Second Language Acquisition

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This paper is concerned with the question whether or not biographical factors such as sex, age, contact with the target language, stays in a target-language-speaking environment or native speaker teachers actually have a measurable influence on individual success in second language acquisition (SLA). These factors are often assumed to have an influence, and serve as a basis for many prejudices against L2 speakers that are held by potential employers but also by the public. One example for these prejudices would be the assumption that an individual who has stayed in a target-language-speaking environment for a few months, will be fully proficient or "perfect" in the target language. Based on this assumption, we can observe a rising popularity of foreign-exchange programs in high school and university and a positive discrimination of applicants who claim such a stay in their CV by employers. Within this work, we have tested most of these "common-sense" assumption in a study, using English as an L2 as an example.

Keywords: second language acquisition, external factors, native speaker

#### 1 Introduction

English is currently the most spoken language worldwide. There are approximately 400 million native speakers and an estimated billion of learners of English, which means that a fourth of the world's population is currently able to communicate in English (CRYSTAL, 2007: 69). It is the official or *de facto* language in 54 countries and most international organizations. In the 21<sup>st</sup> century, English has become the most important means of communication in multinational companies, financial institutions and also in academic exchange.

English today obviously serves as a modern lingua franca, or *global language* as Crystal characterizes it. It is therefore very important, if not even taken for granted, that students, graduates and young academics today are fluent speakers of English. A good understanding of English as a second language (L2) is necessary, as it makes exchange with researchers all over the world possible. English is a perfect example for a modern language that is spoken out of necessity by a huge number of non-native speakers worldwide.

The necessity of being able to communicate in a language other than one's own mother tongue also becomes obvious in the context of an ongoing globalization process that can currently be observed in all areas of life, but especially in economical contexts. In order to reach certain positions in their career, speakers sometimes have to give evidence for their L2 proficiency by taking a test or demonstrating their language skills, but in most cases their proficiency is simply estimated by relying on certain biographical factors which can be derived from a speaker's CV. The assessment of a speaker's proficiency in an L2 is very often done on basis of common-sense assumptions about what factors in a speaker's biography are probably beneficial to his/her proficiency. An example for this would be an employer who chooses promising job applicants with assumed high L2 proficiency by selecting those who state in their CV to have stayed in a target-language speaking country for a certain period of time. Another example would be a language school that hires only native speakers as teachers, since they assume that only native speakers can teach a language "perfectly". Such a selection procedure, which relies on biographical factors for assessing language competence, is common practice and can be found in many areas of life. Very often, these common-sense assumptions do not have any scientific or linguistic basis and are just accepted as a truth by hearsay or individual experience.

This paper seeks to critically examine and discuss the practice of assessing nonnative speakers of English on the basis of biographical factors. As stated in the
beginning, the ability to speak English well is an indispensable requirement for
most young academics and professionals today. Very often, assumptions about a
person's capability of the English language are made by their CV. Persons who
started learning English at an early age or have spent a school year or semester
in an English-speaking country are usually automatically assumed to speak
English very well. Learners obviously hold the same assumptions, which is
reflected in the rising popularity of educational exchange programs in high
school and university, or other programs such as "au pair" and "Work and
Travel". But are these assumptions really generally correct? This paper aims at
giving evidence for or against these widespread beliefs and expectations, so that
future categorizations and assessments can possibly be based on a more stable
foundation of facts.

## 2. Approach of this study

In order to test the assumptions that are held by many people, we have conducted a study with a sample of German students, learning English. The students were questioned about their biography of learning English in an online questionnaire. We have questioned participants about the following biographical factors:

#### **1.** Sex.

For the factor of sex, we often find the assumption that women were the better language learners. This is also confirmed by several linguistic studies that were conducted on this topic (Compare: LABOV, 2006: 266; BURSTALL, 1975: 123; BOYLE, 1987: 282). Hypothesis 1 therefore is: Female learners should be more successful in SLA than male learners.

### 2. Age

Most assumptions on the factor of age can be summarized with the formula "younger is better". The recent discourse about the benefits of early-childhood education has contributed to a general attitude of the public to prefer individuals that have started learning an L2 at a very early age. This attitude might be based on the *critical period hypothesis*, first proposed by Penfield and Robert in 1959. It states that there is a period in life during which language acquisition occurs naturally and will result in native or native-like proficiency. The acquisition after this specific age — mostly specified around the start of puberty — would therefore be much more difficult and would be impossible to result in a native-like proficiency (PENFIELD & ROBERTS, 1959: 34). Hypothesis 2 is therefore: The younger a learner was when he/she first started learning English, the more successful he/she should be in the acquisition.

## 3. Stays in a target-language-speaking environment

One of the most widespread assumptions is that a stay in an environment where the target language is spoken will lead to immense improvements in individual SLA, or even native-like proficiency. This is easily proven when looking at the steady popularity of programs such as foreign exchange for high school students, au pair, Work and Travel, semesters abroad and many others. This assumption can also be found in linguistics, namely that language acquisition in a natural setting automatically leads to a higher proficiency than acquisition in a classroom setting (compare FATHMAN, 1978: 219; HÜRTER, 2008: 103; KLEIN & DITTMAR, 1979: 198). Hypothesis 3 therefore is: Those who spent more than three months is an English-speaking environment will have a higher proficiency than those who did not.

## 4. Contact with target language in everyday life

Another common-sense assumption about individual SLA is that a learner will profit from a lot of contact with the target language in his/her everyday life. With this, we mean the rate to which a speakers uses English in his/her everyday life for communicating with friends and family, but also how much English-speaking media he/she watches, reads or listens to, or which role English plays in his/her studies. Speaking in linguistic terms, this is a question of input and interaction. If a person consumes a lot of English-speaking media in his/her everyday life and communicates with many other English-speaking persons, we can assume that this person receives a lot of input of English and might therefore have an advantage in the acquisition of English (compare GASS, 1997: 2; KRASHEN, 1989: 440; LARSEN-FREEMAN, 1976: 48). Hypothesis 4 is therefore: The more contact a learner has with English in everyday life, the higher his/her proficiency will be.

## 5. Native speaker teachers

The last factor we have examined within the context of this work is the influence that native speaker teachers have on the SLA success of their students. Many people hold the assumption that those who were taught by native speakers would have an advantage over those who had non-native speaker teachers and would potentially have a higher proficiency in English. This assumption is found very often in other fields related to SLA as well. One prominent example are private schools for foreign languages which almost exclusively hire native speakers. It is also a striking phenomenon found in job advertisements directed at foreign-language editors or other personnel that will have to do with English texts or clients: usually non-native speakers are not encouraged to apply. This positive discrimination of native speakers, especially in teaching positions, is an extremely controversial issue among researchers. Although a lot of positions and

theoretical discussions can be found on the topic, very little actual research is available. Here, we obviously have a lot of potential for future research, since to the author's knowledge, no substantial study has ever attempted to compare performance of students that were taught by native speakers and students who were not. The results of such a study could contribute very much to the debate whether or not native speaker teachers are the "better" teachers, regarding progress and proficiency of their students (compare SZENES, 2008). Hypothesis 5 for that will be tested in the following study is therefore: Those that were taught English by native speakers will have a higher proficiency than those who were not.

The problem that now naturally occurs, is to link the answers of the sample group to their actual ability to speak and understand English. Of course there is no perfect standardized way to gain accurate information about this very complex ability, but in order to have at least one standardized point of comparison that applies to all students in the same way, the students will be asked to give their individual TOEFL score. The Test of English as a Foreign Language (TOEFL) is a standardized test that is taken by students all over the world in order to apply at universities in English-speaking countries. The TOEFL score is broadly accepted to give reliable evidence for a person's ability to speak and understand English and will therefore also serve as a point of comparison in this study. If the biographical factors of a person really have a reliable influence of a person's success in L2 acquisition, it should also be noticeable in the person's TOEFL score. The study will therefore deliver information that will either confirm or refute the validity of the assumption that biographical factors give reliable evidence for a person's ability to speak English.

#### 3 Results

Overall, 104 persons responded to the questionnaire. This sample group consisted of students who took the TOEFL between November 2009 and March 2010 and who had the possibility to voluntarily sign up for this study at their TOEFL testing site. Of these 104, some had to be removed from the sample, since they did not fill out the form completely or did not meet requirements, such as being a student or being able to provide a TOEFL score. This resulted in a final sample of 77 valid responses, which's data will be analyzed in this chapter. The maximum score that can be reached in the TOEFL is 120; the average TOEFL score achieved by the sample group in this study is 100. The sample therefore is 4 points above the overall average of TOEFL examinees in Germany, which ETS quotes as being 96 (ETS, 2009).

#### **3.1 Sex**

Of the 77 valid answers that were included into the study, 37 came from female and 40 from male participants. This corresponds to a sex ratio of 48.1% females and 51.9% males, which is a satisfyingly balanced result regarding the factor of sex.

Our hypothesis, concerning the performance of sex groups following current prevailing opinions in SLA research, stated that female learners should generally perform better than male learners (hypothesis 1). This tendency could not be confirmed by our data. If we compare the performance of the two groups, we receive the following results:

Average TOEFL score of female test takers: 98.2

Average TOEFL score of male test takers: 101.8

Male participants in the study performed in average more than three points better than female participants. Looking at the detailed display of results, we see that males were especially dominant in the group of top scorers who achieved 115 points or better. While 16 female persons were able to score more than 110 points, 19 males achieved the same. In the small group of those who scored above 115 points, five were female and eight were male. This distribution is displayed in figure 1.

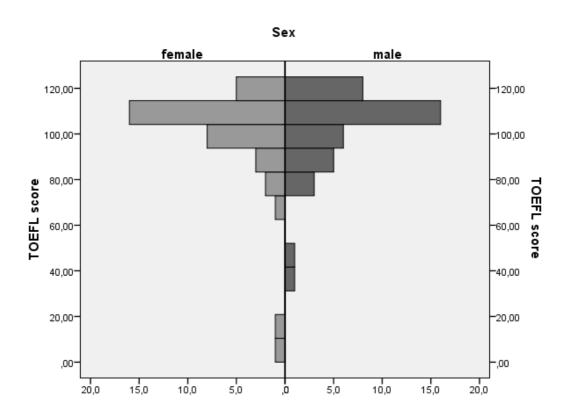


Figure 1: Distribution of TOEFL scores among sex groups

This result contradicts the prevailing view that females would generally be more successful than males in SLA. However, we should keep in mind that the factor of sex interacts with many other factors that may have played a role in this specific sample group. The assumption that females would be better L2 learners, is supported with a lot of evidence from other descriptive studies, our

contradicting result, however, suggests that sex as a single factor does not influence individual success in SLA in a significant way. Thus, hypothesis 1 is proven false.

### **3.2** Age

Following the hypothesis, we expect to see a significant negative correlation of starting age with the TOEFL score, which means that the lower the starting age is, the higher the TOEFL score should be.

Figure 2 displays the actual distribution of starting age in relation to TOEFL score. The dashed line indicates a perfect negative correlation of the two factors that we would see if hypothesis B was verified. As we can see, the actual distribution of data, each indicated by one dot in the graph, is not in accordance with this expected distribution. Speaking in terms of the Pearson product-moment correlation coefficient, we receive a correlation value of -0.064, which equates to a very weak or almost non-existent correlation. This would mean that the age of a speaker when first learning an L2 would be in no state of dependence with his/her actual later proficiency.

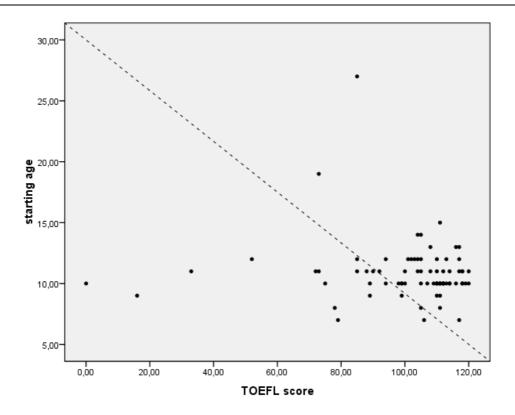


Figure 2: Starting age in relation to TOEFL score

Our result obviously contradicts the prevailing opinion in SLA research that is mainly supportive of the *critical period hypothesis*. Following this opinion, we would have expected an obvious tendency towards a correlation between starting age and proficiency in later life. The reason for this discrepancy may again lay in the size of our sample, or rather in its lack of representativeness. The distribution of data clearly shows that the vast majority of participants in the study started learning English at an age between seven and twelve years, therefore before puberty and before the critical age indicated by the *critical period hypothesis*. This is due to the fact that this age period is the common age for children in Germany to start English as a school subject, therefore the participants in the study all have very similar starting ages. If we had had more participants with an older starting age, the correlation might have been more significant. However, from our limited data, we should make note of some

specific characteristics. The participants, who all have a comparably low starting age, have all achieved rather high TOEFL scores. First of all, most of the participants have achieved a score of 90 or better, which is an overall good result. This would support the tendency that is stated by the *critical period hypothesis*. Secondly, there are a number of outliers that have either started at a rather old age and still have achieved high TOEFL scores, or have started young like all the other but still were unable to reach high TOEFL scores. We can therefore summarize the following from our data for the factor of starting age: Hypothesis 2 has not been verified in our study, however a tendency towards a high proficiency when having a young starting age can be assumed, due to the overall good results of the sample. The outliers in the study however prove that starting age is not a factor that guarantees for a high or low proficiency in later life.

If we put this result in relation to other findings concerning the factor of age in SLA, we find many supporting views. The *critical period hypothesis* has been confirmed by many studies and most linguists agree that the learning of a language at a young age will usually result in a generally higher proficiency than the learning of a language at an older age. However, there are also studies that showed that given the right conditions, the assumption that "younger is better" is not always true. There is consensus that age is not the only factor influencing later proficiency in an L2, therefore the results of our study should be viewed as a further contribution to these findings in SLA research.

## 3.3 Stays in a target-language-speaking environment

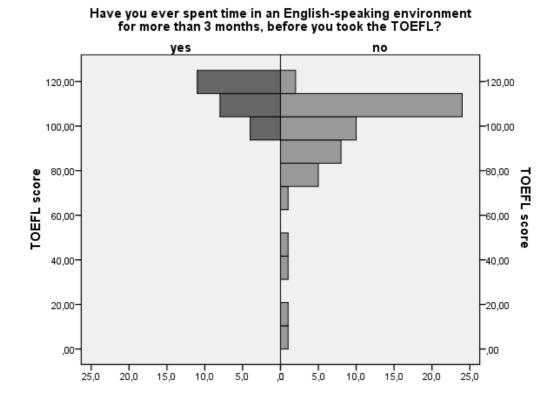
In order to gain information about the influence of stays in an English-speaking environment on a speaker's success in SLA, we have put this factor into relation with the participants' TOEFL scores. We have asked explicitly for stays in

English-speaking environments, such as the United States, England, Australia, etc. and we have also asked for stays that took place before the TOEFL and we have asked for stays that lasted longer than three months. The selection of participants by these criteria should guarantee that the stays we take into consideration actually gave the participants the opportunity to improve their language skills. We received data from 23 persons that fulfilled these requirements, this group will from now on be called the "abroad group" for reasons of convenience. We have first of all compared the average TOEFL scores of these two groups and came to the following result:

Average TOEFL score of the abroad group: 112.1 Average TOEFL score of all others: 94.9

Here we see a significant difference: Those who stayed in an English-speaking environment before taking the TOEFL did excel in average more than 17 points over those who did not. This means that the abroad group has in fact higher TOEFL scores than the group that did not spend time in an English speaking environment. From this, we can assume that these persons have a significantly higher proficiency in English than their peers. Hypothesis 3 is therefore proven correct.

There is however more to this result. Figure 3 shows the distribution of the abroad group's TOEFL scores in direct comparison to the scores of the other participants of the study.



#### Figure 3: Stays in English-speaking environments in relation to TOEFL score

In direct comparison, we can see that all participants belonging to the abroad group also belong to the group of TOEFL top scorers. The range of TOEFL results in the abroad group starts at 94 (almost the average of the complete sample) and ends at 120. In the rest of the sample, we find individual scores between 0 and 118. This range, illustrated in figure 3, allows for some interpretation. If we look closer at the range of scores in the two groups, we see that out of the 23 members of the abroad group, 11 belong to the top scorers who achieved 115 points or more in the TOEFL. This means that almost 50 percent of those who spent time in an English-speaking environment were later able to achieve an almost perfect result. Out of the 54 other participants, only two were able to achieve such an excellent TOEFL score, which corresponds to a ratio of 3.7 percent. From this data, we may conclude that it may be possible to

achieve a very high or native-like proficiency even without having stayed in an English-speaking environment but that it is very unlikely. The likelihood on the other hand increases immensely if such a stay has taken place. We can also summarize, since none of the members of the abroad group scored below 94 points, that it is very unlikely for a person who has spent time in a targetlanguage-speaking environment, to be lacking proficiency in his/her L2. This confirms the basic notion that a natural setting for SLA should be preferred over a classroom setting, due to the higher amount of input and interaction that is available in a natural setting. Our results also confirm the findings of Fathman and Hürter who stated that students who spend time abroad will excel over their peers regarding L2 proficiency. The prevailing opinion found in SLA research that stays in target-language-speaking environments aid but do not guarantee successful SLA can also be supported with the results of our study. However, it should be kept in mind that the members of the abroad group did mostly stay in an English-speaking environment voluntarily and for mostly educational reasons. The reasons for the participants' stays are listed in figure 4 (multiple answers were possible).

Reason for stay	Number of times this reason
	was indicated
Student exchange program	15
Au pair program	1
Work and Travel	5
Internship	2
Semester abroad	2

Figure 4: Reasons for stays in English-speaking environments

Almost all of the participants left their home for an educational or academic reason, the largest group being exchange students. We can conclude that these persons were most likely highly motivated to learn the language, since they had a high degree of integration into their new peer group, due to associated school visits. We should also keep in mind that most of these persons participated in programs that involved some kind of fee or payment, which could also play a role regarding motivation. This factor corresponds to the problem studied by Klein & Dittmar, who focused on the process of SLA of immigrants. Their studies came to different results than our study, showing that many immigrants were far from native-like proficiency, although they as well had had the opportunity to learn the language in a natural setting. This was mainly explained by the influence of other factors such as motivation and sociocultural identity. These factors are clearly different for immigrants and exchange students. The basic notion that these factors may play a more important role in the process of successful SLA than the mere existence of a natural setting can therefore be supported by our result.

## 3.4 Contact with target language in everyday life

In order to measure the influence of contact with English in a learner's everyday life on his/her success in SLA, we have included a number of questions on this specific area into the questionnaire. We have focused on the role that the English language plays in the participants' free time on the one hand and on the other hand we have focused on the role of English in studies and university.

Starting with the role of English in the participants' free time, we have presented participants with several activities associated with leisure time and have asked them to indicate for which areas they regularly use the English language. In figure 5, we can see the variety of activities and the distribution of "yes" answers (multiple answers were allowed).

	"yes" answers	percentage
watching movies/TV series	51	66.2%
reading books	48	63.3%
news (papers, TV, etc.)	46	59.7%
internet communication	33	42.9%
friends	32	41.6%
student job	21	27.3%
family	2	2.6%

**Figure 5:** Usage of English in free time

Obviously, the vast majority of students in our sample (66.2%) regularly prefer to watch movies and TV series in English. This is closely followed by English books (63.3%) and English news (59.7%) which seem to be popular in our sample group as well. A little less than half of the participants (42.9%) also regularly communicate on the internet in English or use the language to talk to their friends (41.6%). Around a third (27.3%) regularly uses English in their student job and a very small group (2.6%) states to communicate with their family in English on a regular basis. This result first of all suggests that most participants of our study actually do have contact with English in their everyday life and free time and therefore have some kind of input and interaction available to them. Only seven persons in total (9.1%) of our sample did indicate

to have no contact with English in their everyday life at all. This fact could suggest a first explanation for the overall above-average performance in the TOEFL of our sample. However, in order to judge the influence of input and interaction on a person's success in SLA, we need to compare the TOEFL scores of those who stated to use English in various areas of their life and those who have very little or no contact with English in their everyday life at all. This comparison is displayed in figure 6. The sample was divided into eight groups, starting with those who stated to have no contact with English at all. The group labeled "1" includes all participants who indicated to use English in only one area of their free time, the group labeled "2" includes all participants who indicated two areas from the list of activities presented to them, and so forth, up to group "7" that includes all participants who indicated to regularly use English in all seven areas they were presented with in the questionnaire.

	persons	Ø TOEFL
		score
no contact	7	78.1
1	10	99.8
2	14	96.2

3	12	106.3
4	17	99.9
5	11	104.7
6	5	113.8
7	1	120
total	77	100

Figure 6: Distribution of TOEFL scores in relation to intensity of contact with English

Following hypothesis 4, we expect learners who have a lot of contact with English in their everyday life to have significantly higher TOEFL scores than those who do not. If we look at the two extremes of our scale (0 and 7) we find this notion confirmed. The group of persons who claimed to have no contact with English in their everyday life at all, has by far the lowest average TOEFL score of all groups (78.1). On the other end of the scale, we find one person who has indicated to have contact with English in all seven given areas and this person in fact has the highest possible TOEFL score of 120. However, we must keep in mind that this can not be taken as prove, since one person is not representative and could just as well have achieved this high TOEFL score by coincidence. However, the group with the next highest amount of contact with English, group 6, has an average score of 113.8, which is in fact the second highest score. We can therefore make note of at least a tendency towards confirmation of hypothesis 4. If we then compare the groups 1 to 5 that are in between these extremes, we cannot observe a gradual increase of TOEFL scores, as contact with English increases. This instability is visualized in a graph in figure 7:

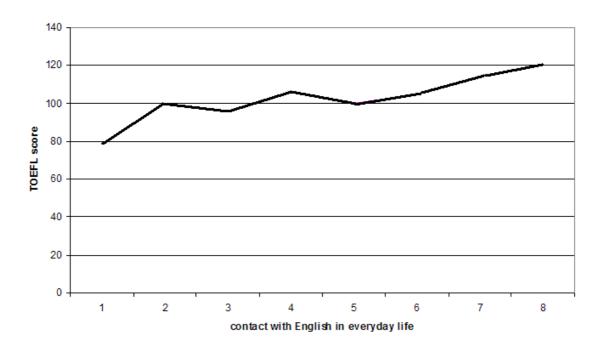


Figure 7: Graph, TOEFL scores in relation to intensity of contact with English

What we can summarize at this point, is that hypothesis 4 could not be fully proven, since no gradual increase of TOEFL scores over the full range of contact with English in everyday life could be observed. However, our data suggests that no contact with the target language at all seems to hinder successful SLA, while an exceptionally high level of contact with the target language seems to clearly facilitate successful SLA. The influence that an "average" amount of contact with the target language has on a learner's success in SLA remains unclear.

This result is very much in accordance with observations made in previous studies. Gass and Krashen have formulated in the *input hypothesis* that input is necessary for a learner in order to expand his/her knowledge of the language. However, both have included the constraint that this input needs to be manipulated and processed in some form by the learner in order to actually benefit from the input (GASS, 1997: 86; KRASHEN, 1989: 440). Applied to our

result, this leads back to the interdependency of the many different external factors on a learner's success in SLA. Since the factors cannot be isolated from each other and influence each other, this might offer an explanation for the inconsistency of average TOEFL scores in the "average" groups 1-5. As Gass and Krashen have stated: The learner needs to process the input that is available to him/her, in order to make use of it. The many different external factors, such as age, motivation, social situation, etc. may influence this processing and explain why learners do not improve their proficiency gradually to the amount of input that is available to them. This is exactly the prevailing opinion that is found in SLA research, which states that input most likely facilitates successful L2 acquisition, but cannot guarantee for it. Our result that clearly shows that the total absence of contact with the target language seems to hinder successful SLA, while an exceptionally high level of contact with the target language seems to facilitate successful SLA, is in accordance with this general tendency. As all of the participants of our study are students, the university should play a major role in their lives and therefore contact with the English language in this area should be of even higher importance than contact with English in the students' free time. We have asked participants in our study to estimate the percentage that the English language holds in their respective study program, which means the part of lectures, seminars or literature that is available to them in the English language only. Figure 8 shows the distribution of this data and the average TOEFL scores of the different groups.

persons	Ø TOEFL score

less than 25%	48	99.4
25% - 50%	11	104
50% - 75%	12	94.3
more than 75%	6	109.5
total	77	100

Figure 8: Contact with English in studies in relation to TOEFL score

Following hypothesis 4, we expected to observe a gradual increase of average TOEFL scores as the percentage of English classes, lectures and seminars increases. This expectation is almost true, with the exception of the group that stated to use the English language in 50%-70% of their studies. The three other groups can be ranked according to their average TOEFL scores, with the group that has the most contact with English in their studies having the highest average score (109.5) and the group that has the least contact with English having the lowest average score (99.4). Interestingly, the group that can not be ranked in this expected order – the group that stated to use the English language in 50%-70% of their studies – has an even lower average TOEFL score than the group with the least contact. This could be due to various reasons. The duration of the studies could have an influence, as well as the specific study program the students are attending. However, the fact that this group's average TOEFL score does not fit into the order of the other group's TOEFL scores, refutes the correctness of hypothesis D. The distribution of this data is visualized in figure 9:

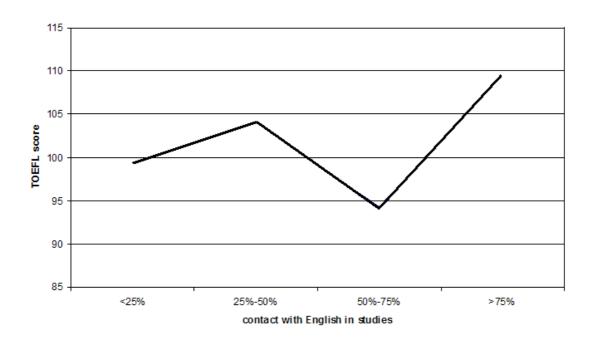


Figure 9: Graph, Contact with English in studies in relation to TOEFL score

The only result that is safe to state at this point is the fact that an exceptionally high amount of contact with English in a learner's study program (above 75%) in fact seems to facilitate SLA, since this group has reliably achieved the highest average TOEFL score. This overall result is similar to the result we were able to observe when analyzing the influence of contact with English in a learner's free time. In this case as well, exceptionally high levels of contact also resulted in very high TOEFL scores of the learners. In the case of usage of English in a learner's free time, the result was even more evident than in the case of study programs. This allows for the question, whether or not this may be connected to the factor of motivation, as the usage of English in one's free time is obviously voluntary, while the usage of English in one's study arises out of a necessity. The more detailed analysis of the difference between these two areas would be beyond the scope of this work, but definitely requires further research. The results of our study so far confirm the prevailing view in SLA research that input

facilitates but does not guarantee successful SLA, and suggests further that an exceptionally high level of input does in fact facilitate SLA in a verifiable way.

### 3.5 Native speaker teachers

The last factor that was considered in our study was the influence of English lessons that the speakers may or may not have received by native speaker teachers. As already mentioned in chapter 2(5), the influence of this factor is very controversial and only very little actual research is available on this topic. Our questionnaire therefore included a number of questions on this specific topic in order to gain information about the influence of this factor on our sample's proficiency. Considering the fact that the actual benefit of native speaker teachers to their students, opposed to non-native speakers, is highly doubted by SLA and English language teaching (ELT) researchers, the result of our study in this specific area is surprising. We have received answers of 36 persons that have at some point in their education received English lessons by teachers that were native speakers of English (for convenience this group will be called the "native group" from now on). The remaining 41 persons in our sample have never received English lessons by teachers whose native language was English (for convenience we will call this group the "non-native group" from now on). This corresponds to a ratio of 53.2% of students of non-natives and 46.8% of students of natives, which is an unexpectedly balanced result. When comparing the two groups' average TOEFL scores, we were able to observe a clear difference between the performance of the non-native and the native group:

Average TOEFL score of the native group: 107.7 Average TOEFL score of the non-native group: 93.3

The average TOEFL results of these two groups are almost 15 points apart which actually is a very significant difference. In order to find a reasonable explanation for this phenomenon, we have analyzed the native group in closer detail. It is very likely that the persons, who indicated in the questionnaire to have been taught by native speakers of English, are the same persons who have spent time in an English-speaking environment. As shown in chapter 3.3, we have had 15 persons in the sample who indicated to have participated in a student exchange program. These persons should have received English lessons in their respective exchange high schools and therefore obviously have been taught by native speaker teachers. Since the group that spent more than three months in an English-speaking environment has achieved an exceptionally high average TOEFL score (112.1), we have to make sure that the persons of the abroad group, who are most likely included into the native group, do not influence the results for this specific factor. Among the 36 persons of the native group, we find 15 persons who have spent time in an English-speaking environment. This group has achieved an average TOEFL score of 112.8, which is almost the same average score as the abroad group of chapter 3.3 has achieved. If we now look at the remaining 21 persons of the native group and calculate their average TOEFL score, we receive a result of 104.1. This result is still almost 11 points above the average score of the non-native group and therefore still significant. We have therefore shown that our result holds true, even if the data of the 15 members of the abroad group is not considered. The overall good scores of the abroad group are therefore not the main influencing factor in this result. We can summarize that our data reliably suggests that the proficiency of the two groups actually seems to be strongly influenced by the factor of native speaker teachers. Hypothesis 5 has therefore been confirmed.

After we have shown that the circumstance whether or not a learner has been taught English by a native speaker does in fact seem to play a role in the process of SLA, we will turn to the point in time at which these English lessons were received. Although this question was initially included into the questionnaire as an additional question, it could now be interesting to include this data, since the results so far suggest an actual influence of the factor. It should be kept in mind, that this specific aspect of the SLA process is closely related to the factor of age that was analyzed in detail in chapter 3.2. According to hypothesis 2 and the general assumption that "younger is better", we would expect those who received English lessons by native speakers at an early point in time to have higher TOEFL scores than those who received those lessons at a comparably late point in time. We have asked the participants to indicate at which approximate point in their education they have received English lessons from native speakers. The five answering options were: Kindergarten, elementary school, high school grade 7-10, high school grade 10-13 and university. Figure 10 displays the distribution of answers that were given (multiple answers were allowed).

	persons	Ø TOEFL
		score
kindergarten	0	
elementary school, grade 1-6	2	118.5
high school grade 7-10	5	111.8
high school grade 10-13	18	110.2
university	21	105.9

**Figure 10:** Point in time of English lessons by native speaker teachers in relation to TOEFL score

Unfortunately, there were no participants who have had the chance to be taught English by native speakers as early as in kindergarten, we have therefore not received data in this specific category. For all other categories on the other hand, we can observe a gradual decrease of average TOEFL scores as the age of learners increases. This suggests a negative correlation between these two factors. The group who has received English lessons from native speakers in elementary school has by far the highest TOEFL score of 118.5, which is almost a perfect score. However, this group consists of only two people. The result can therefore not be taken to be representative. Despite this circumstance, all other groups show a steady decrease of TOEFL scores, as the participants' age increases. The "worst" group is at the same time the oldest group of the sample, which includes all persons who received English lessons from native speakers at university level (105.9). It should be kept in mind however, that the results of all people who were taught English by native speakers are excellent and high above average. The influence of this factor is therefore doubtlessly significant in our sample. Although we have shown in chapter 3.2 that the starting age of learners of English seems to have no significant influence on their later proficiency, we find the "younger is better" assumption confirmed for the factor of native speaker teachers. If we assume that native speakers are the "better" teachers since they supposedly have an all-encompassing knowledge and better intuition about their language, our surprising result has to be interpreted in the way, that this quality of English lessons has a much stronger influence on a learner's later proficiency if he/she is exposed to this input at an early age. In other words: If a learner is supposed to have a very high proficiency in later life, and tries to achieve this goal by taking English lessons at an early age, he/she should

preferably receive lessons from native speakers, since the positive influence of English lessons given by non-native speakers could not be verified.

After we have analyzed the influence of the point in time at which a learner receives English lessons from a native speaker teacher, we will now focus on the continuity of these English lessons. By the term continuity, we mean the frequency of occurrence of the teaching situation "native speaker teacher" within the learner's educational biography. Most persons in our sample have been taught by native speakers at only one point in their life (for example only at university). There have been a few persons who indicated to have been taught by native speakers more than once. If the factor of native speaker teachers really is as influential as our data so far has suggested, we should be able to observe an increase of TOEFL scores for those, who were taught by native speakers several times in their educational biography. In other words: If the factor of native speaker teachers is in fact the factor that is responsible for the excellent TOEFL scores of this specific group as we assume now, we should also be able to see differences in TOEFL scores within this group, depending on the continuity of the factor. In our sample, we have mostly had persons who received English lessons from native speakers only once in their life; this group is labeled "1" in figure 11, which displays the average TOEFL scores of the different groups. Similarly to figure 6, the group labeled as "2" consists of persons that indicated to have been taught by native speakers twice in their life, and group "3" includes persons that received English lessons from native speakers three times during their education. There were no participants in our sample that have had this teaching situation more than three times in their educational biography, we therefore have only these three groups to compare. Figure 11 shows the average TOEFL scores of these three groups.

	persons	Ø TOEFL score
1	29	107
2	4	107.3
3	3	115.7

**Figure 11:** Distribution of TOEFL scores in relation to continuity of English lessons by native speakers

Group 1 – the group with the lowest intensity of input by native speakers – has the lowest average TOEFL score of the three groups (107). Group 2 has a slightly higher TOEFL score than group 1 (107.3) and group 3 – the group with the most exposure to native speakers teachers and therefore the longest continuity of the factor – has by far the highest average TOEFL score of 115.7. What we can conclude from this data is that there is a gradual improvement concerning proficiency of learners that seems to be closely related to the continuity of exposure to native speaker teachers. This result matches our previous results concerning this specific factor, all of which suggested that the English lessons a learner receives by a native speaker teacher influence his/her later proficiency in a significant way. As a final conclusion, we can therefore summarize that our data strongly suggests a significant influence of the factor of native speaker teachers on a learner's proficiency in English.

#### 4. Conclusion

In this work, we have shown that the assessment of speakers of English as an L2 by their biography is problematic, since it usually relies on mere assumptions about what is beneficial to a learner's success in SLA and what is not. We have tried to deliver evidence for or against the correctness of these assumptions by first of all identifying factors that may influence individual success in SLA from

a linguistic point of view, and secondly by testing the influence of these factors in a study.

We can summarize that the factors that prove to be most influential within our sample group were the factors of stays in English-speaking environments and the factor of native speaker teachers. The participants of our study to which these factors applied had in average higher TOEFL scores than the other participants. Although the TOEFL may not give perfect evidence for a person's level of proficiency, it strongly suggests that the participants to which these two factors apply are in fact the participants with the highest proficiency in English. A third factor that could not be proven to be influential in all aspects is the factor of contact with English in everyday life. Here we could observe a tendency of "extremes" to be reflected in the respective participant's TOEFL scores. The influence of these extremes could be verified at both ends of the scale, which means that exceptionally high amounts of contact with English prove to be influential, as well as no contact with English at all.

The two factors for which no influence at all could be observed, were the factors of sex and age. This was to some extent surprising, as the influence of these two factors is generally agreed upon in SLA research. Our study however, could not confirm these prevailing views.

Finally, we should make note of the fact that our sample group in general performed above average in the TOEFL. This could be due to the following observations we have made during the analysis: First of all, almost all of our participants have started the process of SLA before the critical period and were therefore comparably young when first starting to learn English. Secondly, almost all participants of our study have contact with English in their everyday life to some extent. For this reason they constantly have the opportunity to make use of English-language input. Thirdly, a comparably large group of our sample

has received English lessons from native speakers at some point in their education, which prove to be beneficial for a learner's success in SLA in our study. Our work therefore not only has shown that the factors named above have an influence within the smaller groups they apply to, our whole sample, which coincidentally combines many of the factors in its characteristics, does in fact benefit from the influence of these biographical factors on their individual success in SLA.

We have therefore delivered data that acts in support of the common-sense assumptions that are often held among the public and by employers about the advantage that L2 learners may have if the factors discussed above apply to their biography.

### **5. Suggested Future Research**

Our study has revealed a few specific points that offer a good opportunity for future research. This is, on the one hand, due to the fact that very little actual research exists on these factors so far and on the other hand this further research is necessary because of specific questions that came up during the analysis of our data. We will briefly describe the two main questions that occurred to us as requiring further considerations.

The first question that has come to our attention during the discussion of our results concerns the factor of contact with English in everyday life. Here, we have observed a difference between those who mostly have contact with English in their free time and those who have mostly contact with English in their study program. Learners who have mostly contact with English in their free time, performed better in the TOEFL than learners who mainly used English in their studies. The reason for this difference could possibly lie in the factor of motivation, since the usage of English in one's free time is obviously voluntary,

while the usage of English in one's study arises out of necessity. This would have to be tested in a successive study in which the data of the two groups could be examined in closer detail.

Secondly, the most concrete suggestion for further research results from our findings for the factor of native speaker teachers. This is mainly because there have not been any studies so far that have attempted to measure the influence of this factor on a learner's later proficiency. This would be necessary in order to broaden the data that is available to us and possibly support the result that our study suggested. We have shown that in our sample, native speaker teachers have had a strong influence on their students' proficiency and that this influence was reflected in their students' TOEFL scores in all aspects. In order to intensify research on this topic, further studies with different sample groups would be necessary. If these studies would come to the same result as our study, the influence of native speaker teachers on their students' proficiency would be confirmed. This would open a new perspective within the current discussion if native speakers really are the better language teachers.

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