U-Shaped Learning and Restructuring in the Foreign Language Classroom

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Table of Contents

List of Tables

List of Figures

List of Abbreviations

ADJ	adjective
AUX	auxiliary
CASP	Complex Adaptive Systems Principle
CCT	Chaos/Complexity Theory
CEFR	Common European Framework of Reference for Languages
CxG	Construction Grammar
COMPL	complement
DET	determiner
DST	Dynamic Systems Theory
EA	Error Analysis
EFL	English as a foreign language
FL	foreign language
FLA	foreign language acquisition
IL	interlanguage
L1	first language
L2	second language
MHD	Markedness Differential Hypothesis
NEG	negator
NL	native language
NP	noun phrase
NS	native speaker
NSE	native speakers of English
PT	Processability Theory
SLA	second language acquisition
SUBJ	subject
TEFL	teaching English as a foreign language
TBLL	task-based language learning
TL	target language
UG	Universal Grammar
V	verb

Acknowledgement

1 Introduction

This dissertation aims at demonstrating that foreign language acquisition (FLA) in the classroom differs from previous theories regarding second language acquisition (SLA), such as the 1970s natural order arguments (cf. Dulay and Burt 1973, 1974a; Bailey, Madden and Krashen 1974) or Processability Theory (cf. Pienemann 1998, 2008), further referred to as PT. Moreover, this thesis aspires to show that previous research can, only to a limited extent, account for the processes in the foreign language classroom. Above all, the arguments claiming that there is a fixed order in SLA may not be fully conducive for determining how students actually achieve this, as the aforementioned approaches, in fact, lack a clear focus on a single target structure. The methods used in these studies, such as mean length of utterance tests in picture description tasks, trace the general development of interlanguage (IL) grammar, rather than concentrating on the acquisition of a particular structure. Studies without a specific focus increase the risk of neglecting pertinent phenomena in the acquisition of a second language (L2), such as underrepresentation[1]. Learners might avoid the use of a structure if they find it particularly difficult (cf. Levenston 1971:115). Evidence comes from early studies by Schachter (1984) on the use of relative clauses and Sjöholm (1995) on phrasal verbs. Picture description tasks do not force learners to produce a particular structure. Therefore, methods of data elicitation that do not trigger the production of one distinct form do not necessarily demonstrate the actual competence of a learner. As learners might avoid the use of a structure, methods of this type are limited in terms of capturing the precise acquisition of grammatical structures.

Moreover, the choice of the target groups in SLA research is highly problematic, as most studies focus on either very young learners or on adult learners. Thus, the individuals are either still in their sensitive period[2] or rather

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[1] This refers to the avoidance of a structure, although learners might have already demonstrated earlier their competence in producing a particular form (cf. Levenston 1971:115).

[2] The sensitive (or critical) period has been an issue of controversy and faced criticism over the years (cf. Birdsong 1996, 2006). However, most SLA researchers do agree that there are age-related effects in L2 acquisition (cf. for example Long 1990; Larsen-Freeman and Long 1991; Birdsong 1999; 2006).

advanced in the acquisition process, probably in a stage where fossilisation[3] has already occurred. Taking into account the original aim of SLA, which is to improve foreign language teaching, the most relevant and representative target group for research comprises learners who encounter the foreign language in a classroom context. What appears to be lacking so far is fundamental research providing qualitative and quantitative data about how children actually learn a foreign language in school. Thus, it is plausible to argue that if studies aim at improving foreign language (FL) teaching, they should draw on data yielded in FL classrooms.

The aforementioned objections highlight two fundamental problems in recent SLA research:

- Studies do not have a clear focus on concrete target structures, which can lead to intriguing results due to inherent processes in L2 acquisition, such as avoidance.
- The results yielded in previous target groups do only partially apply to the acquisition of English in the classroom.

The aim of this thesis is to complement previous research on SLA by focusing on young learners of English in a German secondary school. The empirical data amassed in this study contribute to analysing the actual IL development of learners of English. In addition to that, the data collected help to critically reflect previous hypotheses on foreign language learning, such as PT, and to discuss them in terms of their explanatory potential. Classifying the errors and measuring target-like as well as deviant performance both help to detect how learners acquire a particular structure. The diverse response types are analysed for potential reasons of occurrence, i.e. qualitatively. Moreover, the distribution of errors and their quantitative error rate can provide insights into their respective probability of occurrence.

This dissertation concentrates on three target features taught in the classroom, namely the copula BE (Chapter 4), negative statements (Chapter 5) and preterite formation (Chapter 6). The forms of the copula BE are the earliest structures learners acquire in the foreign language classroom and BE is one of the most frequent verbs in speech. Due to the suppletive paradigm, learners are

[3] The concept of fossilisation introduced by Selinker (1972) refers to the IL state in foreign language acquisition in which learning ceases, even though learners have not reached ultimate attainment in the TL (cf. Selinker and Lamendella 1978:187).

likely to struggle with the acquisition of the forms. As concerns negative statements, two competing structures are used to formulate negative meanings, that is [+ *do*-support], as in *I don't go*, and [– *do*-support], as in *I can't*. Numerous studies have been conducted that provide diverging conclusions about IL negation (cf. for example Dulay, Burt and Krashen 1982; Pienemann 1998, 2008), highlighting the particular significance of further empirical data. In past tense formation, different devices of expressing past time events exist, such as weak marking with the suffix *-ed*, strong marking by using ablaut, or no marking at all as in the zero-marked verb *put.* As in negation, numerous studies focus on learner language acquisition in terms of past tense formation (cf. for example Rumelhart and McClelland 1986; Plag 2000; Pienemann 2008), making this area of grammar particularly interesting for further analysis.

The introduction of this dissertation is followed by an overview of the theoretical background in Chapter 2, presenting major theories in SLA research and inherent concepts in the foreign language classroom, such as U-shaped learning and Dynamic Systems Theory (DST). Moreover, the chapter discusses theories of input and task design and aims at defining parameters for evaluating teaching materials. The empirical parts following Chapter 2 strongly draw on those theories. Chapter 3 presents pertinent information about the target group and the school in which the study was conducted. This helps to determine the learning conditions and the initial state of the learners, which contributes to a more precise analysis of the data in Chapter 4, 5 and 6. In the first part of the respective chapters, essential findings in L1 acquisition are presented in order to compare the processes involved in L1 and L2 acquisition. Moreover, the data yielded in the questionnaires are analysed in terms of the errors made by the learners. The second part of the chapters places special emphasis on the textbook used in the classroom. The provided input and the tasks are analysed and discussed in terms of their facilitating effect and didactic potential by examining whether the textbook offers adequate input and tasks. The results of these three chapters lead to the conclusion in Chapter 7, which formulates major implications and desiderata for improving foreign language teaching.

2 Theoretical Background

In order to unify theory and practice in classroom research, it is essential to look more precisely at two important dimensions of language pedagogy, that is, (a) the cognitive dimension of SLA and (b) the didactics of foreign language teaching. While linguistics aims at detecting how learners acquire a target language (TL), didactics intends to improve the way language is taught. Even though these two disciplines research the same issue, relatively few attempts have yet been made to unite them. Teaching English as a foreign language (TEFL) requires the understanding of complex processes inside the "black box" (cf. Long 1980) when learning a new language and how teaching can be adapted to the learners' needs. This chapter aims at connecting linguistics and didactics. The first part of this chapter (2.1) outlines four important concepts in SLA research; the second addresses theories within the classroom, such as the input as employed in textbooks and task design (2.2). The summary section unites the essential principles in learning and discusses potential improvement in the sphere of teaching and learning.

2.1 Theories of Learning: Restructuring, IL Variation and Dynamic Systems

In the beginnings of SLA research, the aim was to help improve the teaching of a foreign language (cf. R. Ellis 2009: Preface ix). Recent works on L2 acquisition have been criticising that SLA research has steadily moved away from the classroom and has become more theoretical (cf. R. Ellis 1997:77; 2010:198). In order to improve foreign language teaching, 'teachers' research', i.e. "research being done by teachers for teachers", is needed (R. Ellis 2010:185). The following section caters to this need by offering relevant concepts in FL learning and teaching.

2.1.1 U-Shaped Learning and Restructuring

Learning a foreign language is a process, which requires analysing the development of learner language rather than competence at a single point in time. Learners might produce the correct structure without having actually incorporated the TL rule (cf. Lightbown 1985:177). The observation of learners' responses over a longer period of time enables researchers and teachers alike to detect whether learners have acquired a particular structure and the rules governing it. Evidence comes from empirical and longitudinal research accounting for instances in which learners seem

to have adopted a specific structure initially, but fail to reproduce it at a later point in time (cf. Tomasello and Herron 1988; McLaughlin 1990; Tomasello 1998; Ibbotson and Tomasello 2009). This concept has been referred to as U-shaped learning (cf. Lightbown 1985:177), which refers to "a graphic representation of learners' accuracy on a line graph. It starts out high, or reaches a high level, then drops for a period of time before rising again to higher levels of correctness" (cf. Lightbown 1985:177).[4] Similar observations have been documented in L1 acquisition as well and transferred to L2 acquisition (cf. Thomasello and Herron 1988; Tomasello 1998; Ibbotson and Tomasello 2009).

It has been suggested that learners encounter competing constructions in the input with more exposure to the TL. As they try to detect the correct distribution of the seemingly competing forms, learners tend to produce more deviant forms. According to McLaughlin, the competing structures appear to occur in free variation in this period of destabilisation, i.e. learners seem to arbitrarily use different forms for expressing the same function (cf. 1990:121). The attempt to detect the correct distribution of a structure is inherent to this second stage in acquisition, i.e. the stage of destabilisation. In the attempt to ascribe a function to a grammatical structure, learners continuously modify their previous knowledge about the TL. In this process of restructuring, the feedback and the input that learners receive are crucial, as both support them in ascribing a correct function to a particular structure (cf. Gass and Mackey 2006). Both L1 and L2 research suggest that if learners are provided with enough input, they can adopt a construction, formulate hypotheses about its distribution in speech and reject previously formulated, deviant rules (cf. McLaughlin 1990:121; Tomasello and Herron 1988). Those usage-based approaches highlight the importance of learning by actively using a particular structure.

Restructuring comprises the change of representations within the IL system (cf. McLaughlin 1990:123; Tomasello 2001, 2010). U-shaped learning is considered the result of a transition from exemplar-based to rule-based representations of knowledge (cf. McLaughlin 1990:123). Learners begin with reproducing the forms and structures they have stored. In this stage, speech

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[4] Restructuring is caused by numerous variables, since IL systems are considered as complex systems behaving in a non-linear way (cf. DeBot, Lowie and Verspoor 2007a, 2007b; Filipović and Hawkins 2012, 2013). The components involved in acquisition interact in different ways and to different degrees, leading to sudden changes of the system (cf. Lightbown 1985:177), as to be discussed in more detail in 2.1.3.

production comprises formulaic sequences or chunks. This results in high accuracy scores in initial stages, since learners merely draw on memorised exemplars rather than analysing the chunks as to their grammatical properties, such as inflection markers (cf. Tomasello 2010). As storing exemplars is suboptimal in terms of economy, learners begin to replace chunks with systematic rules (cf. McLaughlin 1990:121). These rules, however, need verification. Input and output both serve as evidence to the learners indicating the correct use of IL rules or the need to reconsider previously formulated IL hypotheses. In other words, positive evidence leads to acquisition and negative feedback to further reorganisation (cf. Gass and Selinker 2008:332). With regard to past tense formation, for instance, Rumelhart and McClelland have showed that learners initially store all preterites as exemplars, which they can reproduce at any time (cf. 1986:219-220). The transition to rule-based representation is observable when learners detect that weak verbs systematically take the suffix *–ed* to mark past time events. Rumelhart and McClelland state that, due to this change in the level of representation, learners undergo a period in which they overgeneralise *–ed* and apply it to strong verbs as well. This results in constructions such as **wented* or **goed* (cf. 1986:221). Chapter 6 puts special emphasis on the acquisition of past tense formation.

Usage-based approaches suggest that learning comprises three developmental stages, that is, (a) the reproduction of formulas, which results in high accuracy rates without, however, reflecting the actual competence; (b) the destabilisation of the IL system with a period of many errors, since learners are forced to reformulate their hypotheses about the TL and to unpack the formulas (either because of economic principles or due to the existence of competing structures); (c) the successful detection of the TL rules with a rise in accuracy again. The following figure illustrates the notion of U-shaped learning by drawing on the results of Chapter 5 of this dissertation.

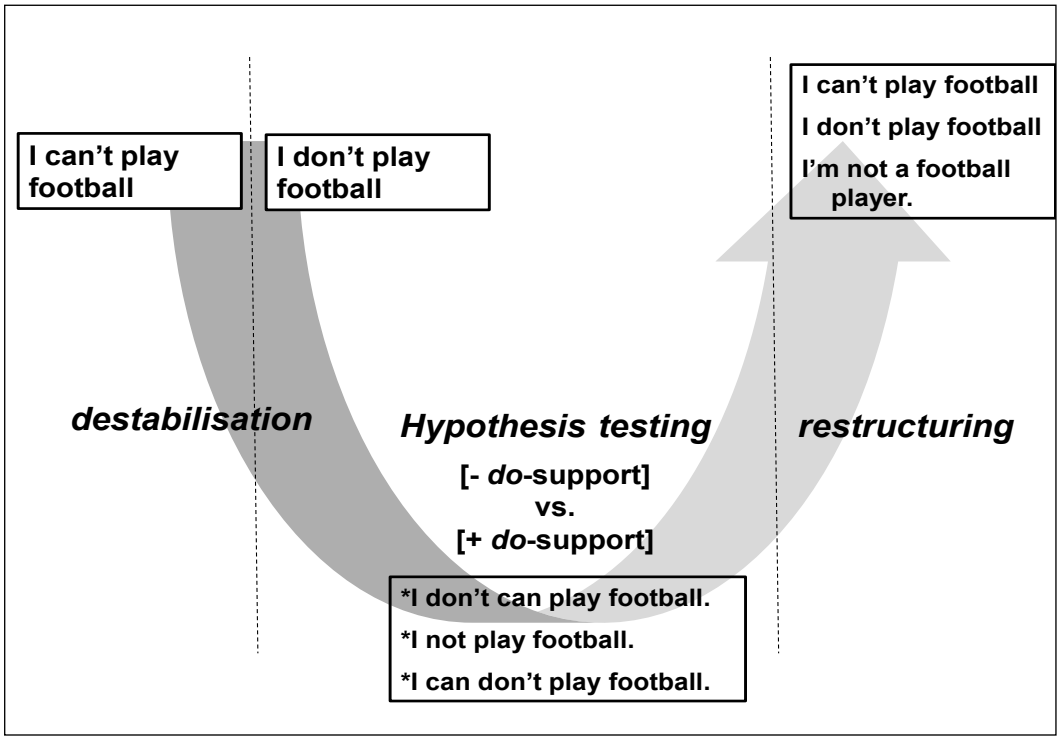

Figure 1 U-shaped learning in L2 negation

Figure 1 shows that learners overgeneralise *do*-support and apply it to verbs which are negated differently (*I can't play*; **I don't can play*). They do so although they were previously able to form negative statements with the modal *can*. Chapter 5 on IL negation discusses potential reasons for this phenomenon

The concept of U-shaped learning and restructuring offers essential implications for TEFL. It emphasises that teachers should not be concerned about the errors their students commit, since deviant forms mirror what students find difficult. Any response reflects the processes in the learner's IL system, which is why errors should not be regarded as something to be eradicated (cf. Corder 1967:167). The understanding of the difficulties in acquiring a foreign language enables researchers and teachers alike to support the learners in their restructuring process by providing them with adequate input and teaching material. According to U-shaped learning approaches, "an increase in error rate in one area may reflect an increase in complexity or accuracy in another" (cf. Lightbown 1985:77). Teachers need to be aware of restructuring as an omnipresent process in the classroom, as errors are a by-product of the learners' attempt to incorporate the target-like structures.

2.1.2 Chaos/Complexity Theory and Dynamic Systems

Dynamic Systems Theory (DST) originates from mathematics and criticises that many studies on L2 acquisition fail to account for IL variation, as they regard IL systems as static constructs (cf. DeBot, Lowie and Verspoor 2007b:53). As language representations change in the course of time, IL systems can be regarded as dynamic constructs (cf. DeBot, Lowie and Verspoor 2007a, 2007b). Dynamic systems exhibit non-linear behaviour, meaning that the change of a factor in a process leads to a completely different outcome. According to Larsen-Freeman, systems lacking linear behaviour are dynamic, as they are sensitive to changes in the environment and strongly depend on initial conditions (cf. 1997:144). DeBot, Lowie and Verspoor (2007a, 2007b) draw on Chaos/Complexity Theory (henceforth CCT), which considers language development as a significant source for detecting IL states (cf. Larsen-Freeman 1997, 2007, 2011; Larsen-Freeman and Cameron 2008). Accordingly, IL systems feature variability, which is considered an inherent property of dynamic systems. The degree of variability indicates how learners' linguistic representations change over time (cf. DeBot, Lowie and Verspoor 2007a:53). As dynamic systems are sensitive to a wide variety of factors, they easily change and IL variation is suggested to be a consequence of this sensitivity. There is a consensus that L2 acquisition comprises a multitude of factors, such as motivation (cf. Dörnyei 2001, 2005; MacIntyre 2002; Ushioda 2003), aptitude (cf. Carroll 1981; Skehan 1989, 2010), age (cf. Long 1990; Larsen-Freeman and Long 1991; Birdsong 1999, 2006), or language-relatedness (cf. Kellerman 1977, 1979; Sjöholm 1979; Ringbom 1978, 1987, 2007). More recent approaches, such as the Complex Adaptive Systems Principles for SLA (CASP) by Filipović and Hawkins (2012, 2013), also draw on the fundamentals of DST by suggesting that L2 acquisition is affected by various factors. Section 2.1.3 presents the core ideas of CASP. All the aforementioned approaches to L2 development suggest that IL systems are sensitive to changes in the variables that are involved in the acquisition process.

In spite of the chaotic and complex nature of dynamic systems, the acquisition process is predictable and analysable, as even complex systems underlie systematicity and rules (cf. Larsen-Freeman 1997:151). DeBot, Lowie and Verspoor deduce from this hypothesis that variation always coincides with changes in the IL system (2007b:52). This dissertation strongly draws on the idea that, even

in apparent chaos, systematic IL rules can be identified (cf. Larsen-Freeman 1997:151). Categorising the errors is helpful when it comes to analysing potential error sources. The following examples from Chapter 5 on IL negation illustrate the learners' answers and their respective response types:

#	**Response**	**error type**
(1)	He can't play.	target-like
(2)	*He can't not play.	double negation
(3a)	*He don't can play.	erroneous negation type
(3b)	*He doesn't can play.	
(3c)	*He can don't play	
(4)	*He cant play.	error in orthography
(5)	(*)He can play.	positive statement
(6)	*He aren't play.	erroneous verb

Table 1 Classification of errors in IL negation

The responses show that apart from the target-like response in (1), *n* deviant responses can occur. The errors can be classified into (2) double negation, (3) erroneous *do*-support, which can be divided into (3a) erroneous inflection, (3b) target-like inflection and (3c) postverbal placement of the negator, (4) missing contraction, (5) positive statements and (6) erroneous verb types. The learners consider these responses as potential TL structures for reproducing sentence (1). At first sight it might be tempting to interpret the responses as instances of free variation, since the learners draw on different forms for expressing the same meaning. However, CCT suggests that even in chaos systematic behaviour ca be deduced from the responses. The responses reflect the learners' struggle to incorporate the formation of the target structure. The errors could be considered as an indicator of difficulties, on the one hand, and as an attempt to detect the correct rule on the other. Furthermore, the high number of response types, henceforth labelled as IL variants, implies that the students are in the process of restructuring their IL system, since conflicting forms and hypotheses about a particular structure co-exist (cf. McLaughlin 1990:121). In terms of U-shaped learning, this is the case in the second stage, i.e. the destabilisation stage, when the IL system becomes unstable. The instability correlates with a high number of errors, as the learners

pursue the distribution of the two competing target structures [+ *do*-support] and [- *do*-support]. According to Lightbown, the error rates and the number of deviant IL variants are likely to decrease after the restructuring process (cf. 1985:177).

McLaughlin claims that, above all, the initial conditions and the final product of acquisition provide insight into what learners consider difficult. With regard to the previous discussion on CCT and DST, this suggestion is problematic for two reasons. First, in initial stages of learning, knowledge is likely to be exemplar-based with a dominance of formulaic chunks (cf. R. Ellis 2009:20). Focusing on initial stages, i.e. on learners' formulas, inhibits analysing linguistic competence, since formulas represent memorised phrases, which do not necessarily account for systematic IL rules, as at this stage of learning, rules have not yet evolved (cf. Tomasello 2010:243-244). In the course of time, formulas are unpacked and subject to change with the transition to rule-based representations. Because the responses indicate what happens when IL representations change, it seems more plausible for research to focus on the intermediate stage as well. Secondly, focusing on end plateaus of development can be misleading, since determining at which point learning ceases is difficult. In SLA terms, this refers to the concept of fossilisation (cf. Selinker 1972:215-216; Selinker and Lamendella 1978). Larsen-Freeman claims that language development is a process that does not cease (1997:151). Accordingly, determining the exact end point of acquisition is problematic, as there is no consensus whether acquisition actually ends.[5] In this dissertation, the emphasis is on the initial stage (Stage I), which serves as a basis for classifying the responses in IL variants, and on the intermediate stage (Stage II), i.e. the period of chaos in which IL hypotheses are formulated and rejected. Furthermore, it is argued that the transition from exemplar-based reproduction to rule-based production provides insightful results with regard to IL development, since the errors in Stage II reflect the learners' difficulties.

With regard to restructuring and the core tenants of DST, the ideal figure would show a U-shaped line indicating the accuracy rates and an upside down U-shaped curve illustrating the number of IL variants that learners produce. The

[5] The results of Chapter 6 show that, especially in the case of past tense formation, it is considerably difficult to determine an end point of learning, since even in the alleged final stage, numerous errors occurred. This reflects the fact that preterite acquisition is a particularly long process.

second curve allegedly reflects more variation in the responses in Stage II. Figure 2 illustrates the ideal shape of the two aforementioned curves:

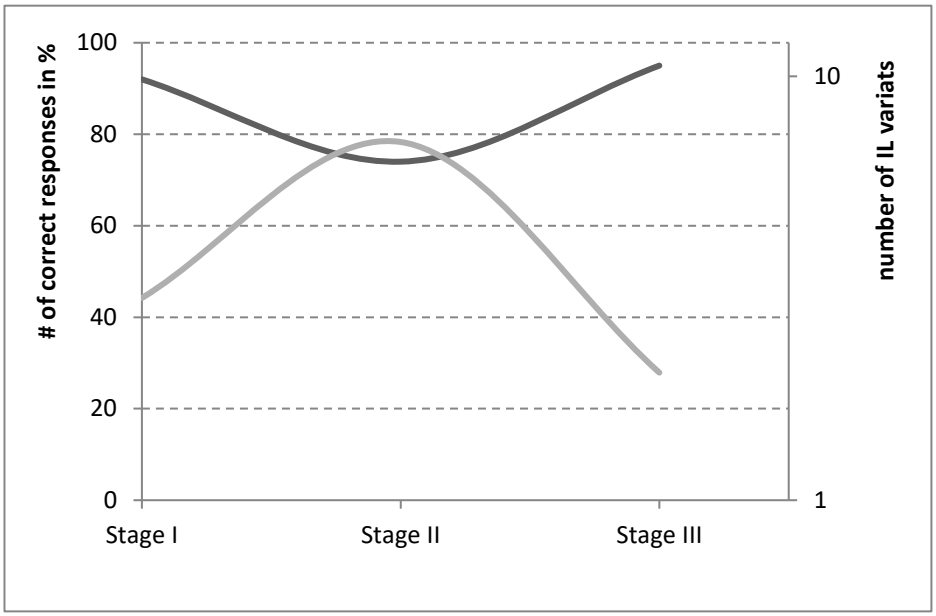

Figure 2: Ideal case of U-shaped learning in correlation with the number of IL variants

The figure reflects that the number of IL variants and the amount of correct responses are inversely proportional. While the number of the first increases in Stage II, the amount of the latter decreases. This is a hypothesis that is tested in the empirical part of this dissertation.

2.1.3 Complex Adaptive Systems Principle for SLA (CASP)

Filipović and Hawkins (2012, 2013) consider foreign language learning as an interplay of several factors, including language relatedness, theories of learning and processing, social and pedagogical factors as well as teaching material and methods (cf. 2013:146). The authors suggest that the interaction of these factors is crucial for determining which IL states are likely or unlikely to appear. The learner corpora that they analysed provide evidence for four general principles in L2 acquisition, that is, to minimise (A) learning effort and (B) processing effort, as well as to maximise (C) expressive power and (D) communicative efficiency. Principle (A) states that learners attempt to reduce the learning effort in numerous ways by, for example, drawing on similar structures between the L1 and L2 (cf. Filipović and Hawkins 2013:158). Additionally, learning is facilitated by intralingual factors,

such as input frequency as well as structural and semantic simplicity[6]. Principle (B) holds that learners tend to use more simple structures, even if they are able to form more complex sentences. Simultaneously, learners wish to express their thoughts in the L2 to the same extent they would do in their NL (Principle C) and "to perform the same language functions as L1 users" (Filipović and Hawkins 2013:159) in order to achieve communicative efficiency (Principle D). In other words, learners want to convey a message adequately and accurately to a specific recipient (cf. Filipović and Hawkins 2013:159). These principles can contribute to target-like production or compete with one another. For instance, the attempt to reduce effort can result in less efficiency in communication, as learners might speak more slowly.

On the basis of these general principles, Filipović and Hawkins suggest six consequences, or more specific principles, for foreign language learning and teaching:

- Maximise Positive Transfer: Learners tend to transfer similar structures more easily than different ones. Therefore, the facilitating effect of positive transfer in SLA should be considered in FL teaching (cf. Filipović and Hawkins 2013:160).
- Maximise Frequently Occurring Properties: The more frequent a structure is, the more likely learners will adopt it (cf. Filipović and Hawkins 2013:162).
- Maximize Structurally and Semantically Simple Properties: Properties of the language that are simple in structure and in meaning can be acquired more easily. Thus, inflectional and semantic ambiguity should be reduced (cf. Filipović and Hawkins 2013:164).
- Permit Negative Transfer: Crosslinguistic influence mirrors the learners' attempt to transfer one structure or meaning from the L1 to the TL. Accordingly, negative transfer may reflect areas of difficulty (cf. Filipović and Hawkins 2013:167).
- Communicative Blocking of Negative Transfer: Negative transfer is less likely to occur if communicative efficiency is negatively affected. Learners

[6] The authors define simplicity in terms of syntax and semantics. Semantically simple structures comprise unambiguous forms; syntactically simple structures can refer to the number of constituents of a sentence (cf. Filipović and Hawkins 2013:163).

tend to reduce negative transfer for the sake of comprehensible communication (cf. Filipović and Hawkins 2013:168).

- Order of Second Language Acquisition: Taking all these consequences into account, a potential order of SLA can be detected, as IL stages can be identified that are likely to occur or to be absent in the acquisition process (cf. Filipović and Hawkins 2013:169).

The CASP model offers an integrative approach to SLA by taking into account numerous factors involved in IL development. For this dissertation, the role of the six principles is essential, as they can account for the occurrence or absence of responses in the questionnaires in the empirical sections. Additionally, the model suggests, at least to some extent, potential improvements for TEFL, as it seeks to account for reasons why learners struggle with some structures and not with others.

2.1.4 Error Analysis

The previous sections presented three essential approaches to L2 development. All of them consider errors as an integral part of language learning. Restructuring implies the occurrence of deviant structures when students test their hypotheses in speech production (cf. McLaughlin 1990:121). DST and CCT hold that variability is one core feature of dynamic, non-linear IL systems (cf. DeBot, Lowie and Verspoor 2007a:53) and CASP suggests that some errors are more likely to occur due to specific factors that influence L2 production (cf. Filipović and Hawkins 2013:146). Since errors are viewed as important indicators of the learning process, the classic ideas of error analysis (henceforth EA), formulated by Corder (1967), complement the previously presented theories. EA has been criticised, above all, by supporters of Universal Grammar (UG), who consider error analysis as a behaviourist concept that neglects innate factors, including natural development or language universals (cf. Chomsky 1995). SLA research, however, does benefit from EA, which can account for errors as well as non-errors in L2 development (cf. Gass and Selinker 2008:104; Corder 1967). EA aims at finding reasons for the occurrence and non-occurrence of specific errors. Accordingly, errors reveal the state of a learner's IL system, as they reflect the IL rules that learners create, maintain and abandon in the course of time. The advantage of EA is the way it regards errors. They reflect the learners' difficulties with a TL structure and their attempt to understand the regularities in language. The focus of EA is on what learners find

difficult and for which specific structures learners need additional support (cf. Gass and Selinker 2008:102). More errors indicate that a linguistic feature is particularly difficult and requires special treatment in the classroom. Recent research in SLA also emphasises the significance of EA in foreign language teaching (cf. for example James 1998; Wang 2008). By means of identifying, classifying and quantifying errors, teachers can analyse potential error sources and remediate them. As Gass and Selinker claim, "[b]ased on the kind and frequency of an error type, pedagogical intervention is carried out" (2008:103). Accordingly, analysing errors as to their error sources constitutes the qualitative dimension of EA, while counting the different error types forms the quantitative dimension.

EA implies that observing the development of errors is more insightful for L2 acquisition than merely focusing on errors that occur at a single point in time. As IL systems are dynamic, the errors that occur during the restructuring process provide crucial insight into what learners typically struggle with. Considering IL systems only from either a qualitative or a quantitative dimension is disadvantageous, since they constantly develop and feature changes of knowledge representations, i.e. U-shaped learning and restructuring. This dynamic characteristic of IL systems necessitates longitudinal research.

2.1.5 Uniting the Theories

This dissertation highlights the need of a holistic approach to IL development. Except for analysing which errors predominantly occur, studies have to account for potential reasons for learners' responses. Errors can be the result of various sources, as was shown in the previous sections. The knowledge concerning the nature of IL systems helps to arrive at a broad understanding of the processes involved in L2 acquisition. This, in turn, serves as a basis for the analyses in the empirical parts of this dissertation. The previously presented theories contribute to formulating three principles that are substantial for this study:

- IL systems are dynamic, exhibiting variability as one inherent property of non-linear systems (cf. DeBot, Lowie and Verspoor 2007b:52).
- Variability occurs at the point where learners struggle the most, since errors allegedly mirror the learners' attempt to reorganise their IL systems (cf. McLaughlin 1990:121).

- Analysing the responses is necessary, as errors show how learners seek to impose systematicity to language (cf. Larsen-Freeman 2011:52).

These principles help to deduce the following hypotheses:

Hypothesis #1: The development of errors and of the IL variants for a particular structure can account for changes in the representation of knowledge in the IL system.

Hypothesis #2: In stages of destabilisation, i.e. Stage II, the learners' responses tend to be more diverse. Variability manifests itself in a higher number of IL variants. Whatever deviates from the target-structure is considered as a variant.

Hypothesis #3: The errors that learners commit in speech production help to identify potential error sources. The analysis of these errors contributes to the compilation of appropriate teaching material with adequate input and opportunities for output.

The knowledge about what learners find particularly difficult over time helps researchers to determine the acquisition path. Moreover, the identification of particular error sources shows which errors need special treatment in the classroom. Some errors persist and require more effort from learners as well as more attention from teachers, whereas others simply disappear. The scope of this dissertation is to show that learners tend to respond in more varied ways during the restructuring process. Since variability is one inherent property of dynamic systems, students can be expected to respond in more diverse ways when their IL systems are unstable. Table 2 exemplifies potential IL variants for the target structure negation.

IL variant	***Example***	**Error**
IL variant 1	*He doesn't come from Italy.*	target-like structure
IL variant 2	**He comes not from Italy.*	missing AUX
IL variant 3	**He don't come from Italy.*	missing inflection
IL variant 4	**He comen't from Italy.*	erroneous inflection
IL variant 5	**…	…

Table 2: List of potential IL variants for the target structure 'negation'

The table shows that the forms comprise one correct response type and *n* deviant IL variants. The more effort the restructuring process requires, the more difficulties the particular area of grammar causes, and the higher is the number for *n*. If learners do not find a structure difficult, the number of IL variants can be expected to be low; if learners struggle with a structure, the number of IL variants should be higher. The errors must be classified into categories in order to define the number of IL variants. As not every type of error can be attributed to the erroneous acquisition of a structure (**He dosen't go*), classifying the deviant forms enables research to distinguish between errors related to the specific structure and errors resulting from deficits in another part of the IL system, such as IL orthography.[7] Analysing errors both qualitatively (the error source) and quantitatively (the frequency of the error) helps to identify which IL variants in particular prove problematic and, consequently, to compile adequate teaching materials.

2.2 Grammar Acquisition and Teaching

The second part of Chapter 2 presents the didactic dimension, i.e. how teaching material is designed and whether it provides learners with the appropriate type of tasks. In this chapter, parameters are defined for task design in order to support the learners in automatising and proceduralising their knowledge and the use of the TL. Research on textbooks is considerably rare, since most of the literature focuses either on purely linguistic aspects and processes involved in learning or on task

[7] According to DST, the parts of the IL system are connected, and a change in one part of the system may result in the change of another (cf. DeBot, Lowie and Verspoor 2007a:8).

design in general. Only a limited amount of studies have analysed textbooks in terms of their didactic potential, especially from a linguistic perspective. This constitutes a major deficiency in recent approaches to textbook analysis (cf. for example Van den Branden 2006; van Avermaet and Gysen 2006; van Gorp and Bogaert 2006; Duran and Ramaut 2006; Samuda and Bygate 2008). Most studies focus on the role of the teacher in task-based language learning[8] (cf. for example van Avermaet et al. 2006), which is presented in more detail in 2.2.2. However, relatively few attempts have been made to link the findings of SLA research and task-based language learning (cf. Littlejohn 1998; Tomlinson 1998; R. Ellis 1997, 1998, 2010). This study aims at filling this gap in research by providing a documentation of errors, their development and their sources with regard to the properties of the input. The following sections outline major findings and hypotheses in recent language pedagogy and didactics are presented in terms of input requirements. Since input alone cannot account for language development, the analysis of tasks is essential as well. Learners need tasks, i.e. opportunities for output, in order to confirm or reject their TL hypotheses (cf. Swain 1985:252, 1995; Gass 1997). Therefore, essential concepts in task-based language learning (TBLL) and task complexity are presented too in order to formulate criteria that textbooks ideally should meet. These criteria are used to analyse the tasks and the input used in German books in terms of their didactic potential.

2.2.1 The Role of the Input

Acquiring a foreign language always requires linguistic input for encountering and experiencing the TL in an authentic context. Cognitive approaches to language learning suggest that input enables the learner to reconstruct a language depending on the distribution of a grammatical structure in the input (cf. Tomasello 2010:251). Since input alone fails to initiate an active participation in the TL, output complements the input (cf. Swain 1985, 1995).[9] An analysis of the learners' previous input helps to identify how learners reconstruct the TL in their IL systems. In this section, the emphasis is on the function of input and the factors that help to evaluate the type of input in textbooks.

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[8] According to van Avermaet et al., the teachers' role comprises the motivation of learners and the promotion of the "negotiation of meaning and content" by offering adequate input and triggering output. (2006:175).

[9] This is the core tenant of the Comprehensible Output Hypothesis, which holds that learners seem more capable of understanding L2 speech rather than producing it (cf. Swain 1995:127).

In SLA research, the role of the input is essential for acquiring a language. Usage-based approaches to acquisition hold that learners deduce regularities from the input and previous research suggests that learners form abstract categories, or prototypes, on the basis of utterances that they perceive (cf. N. Ellis 2002:166). Learners opt for systematicity in language and formulate hypotheses about the TL. Accordingly, language learning is not memorising abstract grammar rules. Learners who solely experience explicit teaching are less likely to acquire a language, since accuracy evolves from language use and focus on meaning (cf. for example Swain 1985; Long 1991; Doughty and Williams 1998; Tomasello 2001). The idea that learners absorb structures from the input and assign forms to functions and/or meanings is the core tenant of constructionist approaches (cf. Goldberg 1995, 2006; N. Ellis 2003; Ellis and Larsen-Freeman 2009). N. Ellis, drawing on Goldberg's Construction Grammar (CxG), defines constructions as "recurrent patterns of linguistic elements that serve some well-defined linguistic function" (2003:64). Moreover, constructions differ in terms of linguistic complexity, since they can comprise particular words or idioms, more abstract classes such as grammatical structures, or even combinations of constructions (cf. Ellis and Larsen-Freeman 2009:92). CxG holds that learners form constructions on the basis of the perceived input, starting with simple constructions that are expanded and constantly modified as the amount of input increases (cf. Ellis and Larsen-Freeman 2006:565; Tomasello 1998:438). The IL system in this sense is input-driven and defined as a constantly changing repertoire of constructions. In the classroom, the textbook and the teacher are sources of input for learners. Additionally, the teacher functions as an instructor and mediator for noticing and processing the input appropriately (cf. Van Avermaet et al. 2006:175).

Numerous studies provide evidence that learners rely on generalisations in L2 acquisition (cf. Rumelhart and McClelland 1986; Tomasello 1988; N. Ellis 2005; Blevins and Blevins 2009; Larsen-Freeman 2011). Due to the limited capacity of the working memory (cf. Van Patten 1996; Robinson 2003a; Skehan 2010), scanning the input for systematic similarities is more economical than memorising each of the perceived structures. Learners opt for systematicity in language, such as *don't* and *doesn't* to express negative statements or the suffix *–ed* for weak past tense formation, rather than storing every sentence from the input. The more systematic a language is, the more easily learners can acquire its

grammar. Conversely, learners have to store suppletive forms in their long-term memory, such as the forms of BE or strong preterites, as they lack concrete rules. As regards strong verbs, studies on L1 and L2 preterite formation provide ample support that learners need to impose systematicity to language (cf. Bybee and Slobin 1982; Bybee and Moder 1983; Plag 2000). Learners tend to form prototypical categories, or schemas, depending on the verbs' phonological shapes, meaning that some verbs trigger specific ablaut types. The nonce verb *strink* generates responses with the three-stage ablaut /ɪ/-/æ/-/ʌ/ (*strink – strank – strunk*), since learners draw on analogies from other verbs which are formed in a similar way (*sing, sink, drink*), and regardless of other phonologically similar verbs with different past tense forms (*bring, link*). As schemas are input-driven, i.e. established on the basis of probabilities and experiences with the TL, they can be regarded as one type of construction. The results of the aforementioned studies imply that learners process the input and form abstract, but systematic categories for reducing learning and processing effort.

However, it would be misleading to expect that learners implicitly analyse every type of input and subsequently acquire the grammar of a foreign language. Some structures are more likely to be acquired than others, which cause more learning effort and more explicit ways of teaching.[10] Analysing all the reasons that enhance or inhibit the acquisition of a structure is beyond the scope of this dissertation. As outlined in 2.1.3, Filipović and Hawkins (2012, 2013) provide a detailed survey of factors and their effect on L2 acquisition. The focus in this section is on input requirements. If teachers or textbook compilers want to enhance the acquisition of a particular form, they have to ensure that input becomes intake, which refers to what learners actually absorb and incorporate from the input into their IL systems (cf. Gass 1997). Therefore, textbooks need to offer comprehensible input to learners. The Input Hypothesis addresses the essential role of previously

[10] With regard to the difficulty of a linguistic feature, Eckman (1977) suggests that typological markedness is a relevant factor. A structure is more marked if it is absent in one language while it does exist in another (cf. 1977:320). As regards negation for instance, English is more marked than German, since the former makes use of preverbal *do*-support and postverbal *not*, whereas (standard) German features postverbal negation only. Consequently, English learners do not tend to struggle as much with learning German negation as German learners do with English. This has been referred to as the Markedness Differential Hypothesis, MDH, which holds that more marked structures are more difficult in acquisition (cf. Eckman 1977:321). The MDH has not been unchallenged, especially due to the vagueness of the concept of markedness. However, the core idea of the MDH that the existence or absence of a structure can affect acquisition has been acknowledged.

perceived linguistic structures (cf. for example Krashen 1985, 1994). R. Ellis, drawing on Krashen (1985), summarises four important claims of the Input Hypothesis:

- Comprehension obeys a certain natural order and the acquisition of structures along this order can be obtained by providing the learners with input that is slightly beyond their level of competence, i.e. 'i+1' (cf. R. Ellis 2008:246).
- Comprehensible input is necessary, but it does not account for other processes involved in the learning process, such as monitoring, which determines which type of input becomes intake (cf. R. Ellis 2008:246).
- Input can be made comprehensible by means of contextual or extralingual cues (cf. R. Ellis 2008:246). In the classroom, visual or auditory support and the focus on a specific form promote the noticing of a target structure the noticing of a structure.
- Speaking alone does not cause acquisition; it rather is its result (cf. R. Ellis 2008:247). [11]

Krashen emphasises a distinction between 'acquisition' and 'learning' (cf. 1982:10). While the first comprises subconscious, implicit learning, enabling the learner to perform in the L2, the latter is defined as a conscious, explicit learning with declarative skills involved, such as knowing the TL rule. According to Krashen, the learnt system is the prerequisite for monitoring in focus-on-form teaching (cf. 1994, 2003).[12] The idea of comprehensible input and its properties, such as 'i+1', is helpful for analysing the input in textbooks.

However, comprehensible input alone fails to account for acquisition. The question is how textbooks and teachers ensure that comprehensible input becomes comprehended input and then intake. Schmidt (1990, 2001) suggests that 'noticing' and 'attention' are affecting acquisition. Attention is linked to consciousness (Schmidt 2001:3), while noticing is considered as one property of attention and

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[11] This latter argument has faced severe criticism though, as it has been widely acknowledged that output through tasks or interaction is significant in SLA (cf. Swain 1985, 1995; Gass 1997). However, it is presented in this dissertation for reasons of completeness.

[12] Krashen's Monitor Theory has been criticised over the last years (cf. R. Ellis 2008:421). Above all, his suggestion that explicit knowledge can never become implicit, the so-called 'non-interface position', has been subject to considerable disagreement.

awareness, referring to the registration of forms by means of the input and ideally the output. Learners become aware of the mismatch between their responses and the actual target-like structure, which corresponds to the concept of apperceived and comprehended input (cf. Gass 1997:4). Schmidt argues that learners store what they cannot analyse in their short-term memory; storing a structure in the long-term memory requires attention (cf. 2001:16). In the weak version[13] of the Noticing Hypothesis, he suggests that acquisition without noticing is possible, but rather uncommon (cf. Schmidt 2001). Consequently, global attention with the focus on meaning fails to trigger acquisition. Instead, Schmidt considers specific attention with the focus on a specific area of the TL as more effective (cf. 2001:23). Textbook compilers usually consider the principles of the Noticing Hypothesis. The input that learners receive is carefully designed and questions are incorporated that shift the learners' attention to a particular structure. This triggers the noticing of a specific linguistic element. Ways of input enhancement, such as input flood or 'skewed input', i.e. the extensive, over-representative use of a form (cf. Oxford and Lee 2007:122; Van Patten 1996, 1998) or highlighting, facilitate the process of noticing a TL structure and its storage in the long-term memory.

Another implication of the Input and the Noticing Hypothesis addresses the properties of the input. Textbook compilers can employ issues of input design, such as highlighting or bold print, to encourage the learners to notice a structure. However, learners might still not acquire a structure only because of visual enhancement. Research implies that frequency and perceptual salience are essential for offering comprehensible input to the learners (cf. for example N. Ellis 2006; Goldschneider and DeKeyser 2001). As regards frequency of occurrence, studies have shown that the more frequent a feature is, the more likely learners acquire it (cf. Larsen-Freeman 1976a, 1976b; Tomasello 2001; N.Ellis 2002, 2005, 2006; Ellis and Ferreira-Junior 2009; Ibbotson and Tomasello 2009; Kidd, Leaven and Tomasello 2009; Abbot-Smith and Tomasello 2010). Ellis and Larsen-Freeman emphasise that acquiring constructions depends on the input, which helps to establish form-meaning relationships (2009:92-93). Usage-based approaches to L1 and L2 acquisition also suggest that the distribution of a structure determines how learners assign a particular function to a grammatical form (cf. Tomasello 2001:71).

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[13] The strong version reflects Schmidt's earlier position (cf. Schmidt 1990), holding that acquisition without noticing is not possible at all. In his later studies, Schmidt revised his position and suggested the weak version (cf. Schmidt 2001).

Research findings on past tense formation provide empirical support to this hypothesis, since they show that the amount of input enhances the establishment of prototypical categories (cf. Bybee and Moder 1983; Plag 2000). Type and token frequency can determine to what extent learners form the past tense and how likely they are to draw on analogies. The issue of past tense formation will be discussed more in depth in Chapter 6. Constructionist approaches to acquisition emphasise the decisive role of input frequency (cf. N. Ellis 2002; Diessel 2007; Ellis and Ferreira-Junior 2009; Ellis and Larsen-Freeman 2006, 2009). Research accounts for a different effect of type and token frequency. Type frequency enables the learners to notice a structure and to analyse the distribution of a pattern, i.e. how often it occurs in the input. More frequent structures are perceived more easily, since learners tend to consider them as more productive (the past tense marker *–ed*, for instance). Token frequency helps to determine the probability of ascribing a prototypical status to a particular form, as Ellis and Ferreira-Junior (2009) suggest:

> The greater the token frequency of an exemplar, the more it contributes to defining the category, and the greater the likelihood that it will be considered the prototype.
>
> (371)

Token frequency is significant especially with regard to irregular verbs, which learners tend to store as chunks in their mental lexicon. In terms of past tense formation, for instance, the token frequency of a particular strong verb enhances its memorisation in the long-term memory, whereas type frequency facilitates the acquisition of the specific paradigm, i.e. the *–ed* marker. Thus, both type and token frequency promote the acquisition of a structure. The more frequent a linguistic feature is, the more likely learners notice it.

In addition to frequency, the salience of a structure is a second essential factor for acquiring a structure, since salient structures enable the learners to perceive them more easily. Salience can apply to numerous dimensions, such as phonology, morphology and syntax. Salient structures draw the learners' attention to a specific form or construction, which can support noticing and helps learners to ascribe a meaning or a function to the form and to formulate IL rules (cf. Larsen-Freeman 2011:56). Thus, salience correlates with attention and noticing, which are important prerequisites for learning (cf. Schmidt 1990, 2001). Salience can account for suggested natural orders in morpheme order studies (cf. Goldschneider and DeKeyser 2001). Learners acquire salient structures (e.g. the progressive marker –

ing) more easily than less salient ones (e.g. the voiceless variant of the past tense marker *–ed* as in *passed*). The 1970s morpheme order studies have showed that *–ing* occurs relatively early in language acquisition. The suffix is phonologically more salient due to its high sonority at the end of a verb. The past tense allomorph *–ed*, by contrast, which is acquired later, is produced as a voiceless plosive after voiceless sounds. The same applies to the present tense marker *–s* for third person singular subjects, which can be articulated either voiced or voiceless.[14] More recent studies emphasising a potential natural order, such as Processability Theory, provide evidence that strong past tense formation occurs before weak past tense formation in learner language (cf. Pienemann 1998, 2008). It can be argued that strong preterites do not occur earlier than weak ones because of natural principles, but due to salience. More salient structures can be perceived and acquired more easily by learners (cf. Goldschneider and DeKeyer 2001:37). The positive effect of noticing and perceptual salience on acquisition is considered by textbook compilers. When introducing new structures, methods of input enhancement are used, such as highlighting the target structure to encourage noticing. Less salient structures in particular need stronger input enhancement, since learners might not notice them otherwise.

To conclude, input is essential for acquisition. The input has to be designed in a way that the structures occur frequently and serve the principle of salience in order to support the learners in noticing and processing them (cf. VanPatten 1996:2). As input alone does not cause acquisition, learners need adequate opportunities for output, which is the scope of the following section.

2.2.2 Task-Based Language Learning

The tasks offered in textbooks are substantial for IL development, since they are opportunities for learners to produce output. They complement input by forcing learners to produce structure in a particular context. Learners can automatise the use of a construction and incorporate it into their IL systems (cf. Robinson and Gilabert 2007:162). Samuda and Bygate (2008) offer a definition of tasks comprised of eight key features:

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[14] In addition the reduced salience, the inflectional marker –s is highly ambiguous, as it can signify the present tense for third person singular subject (*he guards*), the plural (*guards*) or the synthetic genitive marker (*guard's*). In terms of language learning, ambiguity is believed to have an impeding effect on acquisition, which makes the structure less optimal than other ones.

> 1. It [the task] involves holistic language use.
> 2. It requires a meaningful target outcome or outcomes.
> 3. It necessarily involves some individual and group processes.
> 4. It depends on there being some input material.
> 5. It is made up of different phases.
> 6. It is important for teachers - and at some point the learners - to know what is being targeted in the language learning purpose.
> 7. The conditions under which it is implemented impact on process and outcome and can be manipulated variously exploited.
> 8. It can be used for different pedagogic purposes at different stages of learning.
>
> (2008:16)

In this definition, the concept of a *holistic activity* is important. According to the authors, holistic activities force learners to use diverse areas of their IL system, such as phonology, grammar, lexis or discourse principles. Activating more than one area of the language system forces learners to create meaningful language while considering different domains of the TL (cf. Samuda and Bygate 2008:7). The authors distinguish holistic tasks from analytical ones, which focus on individual, specific areas of language only. In didactics, those activities are referred to as 'exercises'.[15] Tasks, by contrast, ideally activate more than one subsystem of language. They offer situations in which learners can use their language skills in (nearly) authentic speech. The focus is not solely on form, which takes a rather minor role in task-based approaches. The main purpose of tasks is to provide learners with the opportunity to create meaningful. Depending on the learners' skills and the teachers' expectations, tasks can be manipulated.[16]

Littlejohn suggests three criteria to be considered when analysing activities in terms of their didactic potential (cf. 1998:199). He suggests that activities should be inspected on the grounds of (a) the processes involved (what are learners expected to do), (b) the participation (who with) and (c) the content (what the activity is about). The three criteria can be further subdivided into more specific groups. The proposed categories prove helpful to research for evaluating the quality of activities with regard to the processes involved while performing them Researchers analysing textbooks can use the categories as proposed by Littlejohn

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[15] In the remainder of this dissertation, the terms "exercises", "analytical tasks" and "analytical activities" will be used synonymously, drawing on Samuda and Bygate (2008).

[16] Teachers can choose between different methods or task types employed. Students can work on their own or with partners, where the latter would trigger communication; they might describe a picture, create a role play or write a story to initiate authentic speech production. The choice between the different parameters affects the outcome of a task. A more precise analysis of task parameter manipulation is presented at a later point in this chapter.

(cf. Littlejohn 1998:199). Table 3 sums up the schedule Littlejohn suggests for analysing tasks:

	Task number	#1	#2	#3	# …
(a) process *What is the learner expected to do?*					
• **turn-take**	• initiate • respond • not required				
• **focus on**	• language system (rules or form) • meaning • meaning-system relationship				
• **mental operation**	• analysing • writing • …				
(b) participation					
• **Who with?**	• partner • alone • …				
(c) content *With what content?*					
• **form**	• input to learners • expected output from learners				
• **source**	• materials • teacher • learner(s)				
• **nature**	• grammar explanations • personal information • fiction • …				

Table 3: Schedule for analysing tasks (based on Littlejohn 1998:200-201)

Furthermore, the teacher's choice to employ or to disregard a particular task is of particular interest. This is related to questions such as what the teacher expects from the learners or which competences are to be activated. Samuda and Bygate use the term 'task-reference', which refers to the abilities of the learners, such as 'to order lunch in a restaurant' or 'talk about his/her holidays using the appropriate tense', etc. (cf. 2008:58-59).[17] An example of a task with regard to competence-orientation is a narration as a product of a picture description task, for instance. The teacher can demand it either written or spoken, in groups, pairs or individually. The learners

[17] The German educational standards use the term competence-orientation instead of task-reference. In this dissertation, both terms are used synonymously, since they refer to similar principles.

have to consider the specific linguistic features (e.g. the simple past as a narrative tense) while fulfilling numerous other communicative demands, such as the adequate semantic fields, discourse functions or stylistic devices.

Although tasks require a holistic use of language, exclusively communicative approaches fail to support the process of noticing specific structures and the mapping of grammatical forms to their respective functions (cf. Carter, Hughes and McCarthy 1998:79). Grammar is necessary as it is the instrument for expression. However, it must not be the exclusive content of the classroom, as recent approaches to foreign language pedagogy hold (cf. Raabe 2009:26). Tasks should always concentrate on language in use and not merely on grammar. However, foreign language teaching should involve units focusing on form, drawing the learners' attention to TL features and enhancing the noticing of a particular structure. Thus, the teacher's choice depends on a task's function, the communicative competences the task fosters, and the linguistic knowledge that is required for solving it (cf. R. Ellis 2003:16).

Furthermore, tasks refer to the engagement of learners as well. According to R. Ellis (1998), tasks activate cognitive processes, not only in terms of language use, but also in terms of problem-solving. The question is, first, which cognitive processes are involved while students work on a task and, secondly, how learners use their cognitive skills for mastering a task. These two issues highlight the influence of task design on the learners' behaviour. Moreover, research on task-based language learning must focus on the learners' language skills. It should take into account the language that students produce in a specific task, since learner output varies with regard to certain parameters. According to Robinson and Gilabert (2007), tasks that activate more than one domain of the IL system trigger different responses than analytical activities (2007:162). This has been referred to as 'task complexity', which the following section presents in more detail.

2.2.3 Task Complexity

Task complexity is related to the learners' use of cognitive skills in tasks and activities. Robinson and Gilabert (2007) suggest that complex tasks, i.e. tasks that involve the activation of more cognitive domains, are more demanding. According to Révész (2011), a high level of task complexity results in more errors as learners have to balance between content and language simultaneously. However, complex

tasks are likely to have greater long-term effects on acquisition, as they activate more domains of the IL system rather than focusing on a particular grammatical structure (cf. Robinson and Gilabert 2007:162). The complexity in tasks is the core idea of the Cognition Hypothesis (cf. Robinson 2001, 2003b, 2007). As learners are forced to use their IL repertoire, they do not only retrieve a specific form, they also reveal their actual language skills:

> [I]ncreasing the cognitive demands of tasks contributing to their relative complexity along certain dimensions will; (a) push the learner to greater accuracy and complexity of L2 production in order to meet the greater functional and conceptual communicative demands they place on the learner; (b) promote interaction, and heightened attention to and memory for input, so increasing learning from the input, and incorporation of forms made salient in the input; as well as (c) longer term retention of input; and that (d) performing simple to complex sequences will also lead to automaticity and efficient scheduling of the components of complex L2 task performance.
>
> (Robinson and Gilabert 2007:162)

Learners use their knowledge about a structure and its use in speech (e.g. the simple past) while drawing on other domains of the TL as well, such as syntax, lexis, semantics or discourse principles. In this sense, complex tasks are more difficult, albeit more effective in terms of acquisition. The Cognition Hypothesis implies that task-based approaches to language learning are substantial, which has been adopted by modern curricula.[18] Task-based language education has replaced approaches that solely focus on grammar teaching.

Recent didactic research demands that textbooks should include tasks that, on the one hand, shift the learners' attention to particular features of the TL, while offering authentic and meaningful contexts on the other (cf. Van den Branden 2006:9). This claim concurs with the Cognition Hypothesis, as it suggests that more complex tasks have a long-lasting effect and promote acquisition. In order to establish categories such as 'more demanding' and 'less demanding', research must have parameters or features for measuring the complexity of a task. Van Avermaet and Gysen suggest a model that evaluates the cognitive demands of a task on

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[18] The educational standards in Germany, the 'Bildungsstandards', comprise the curricula of Germany's ministries of education. In the foreign language classroom, these standards are linked to the Common European Framework of Reference for Languages (CEFR), which provides teachers with parameters for measuring the students' skills in a foreign language. These skills are by no means purely linguistic (for instance 'He/She can apply the simple past'); they refer to common communicative tasks in which a grammatical content serves a specific purpose (e.g. 'He/she can introduce himself/herself). Modern approaches to foreign language learning and teaching necessitate education focusing on the principles of TBLL.

learners (cf. 2006:35-36)[19]. The model suggests four levels of information processing, which are ranked along a continuum. Learners start at the copying level (1) and proceed to the descriptive level (2), the restructuring level (3) and finally the evaluative level (cf. Van Avermaet and Gysen 2006:35-36). Level 1 and 2 are on a rather low rank, since learners reproduce sentences, whereas level 3 and 4 require more cognitive processes, as learners have to select relevant information and compare it to new input. Complexity in tasks, according to this model, is related to the level of processing. The following table exemplifies the model Van Avermaet and Gysen (2006) suggest:

Low level of processing		**High level of processing**	
Relatively global comprehension or (re)production of information in the text is demanded		Processing information demands more than mere comprehension or (re)production. The (representation of) information must be arranged, restructured, adapted to the situation	
Copying level (very low)	**Descriptive level (low)**	**Restructuring level (high)**	**Evaluative level (very high)**
Literally reproducing the information that is offered; repeating something said or written; producing true imitations	Processing or producing the information in much the same way as it is offered, or as it is already available	Imposing another structure to the information than the one it presents: selecting parts of information, establishing relationships between bits of information, designing a new order or structure to available information	Comparing the information of two different sources, and reflecting on the possible use and relevance of each of the information sources
reading a letter aloud	*filling in a form/ asking for personal information at a post office*	*participating in a job interview*	*comparing the information in two articles in order to write a paper*

Table 4: Description of the different levels of information processing as a parameter for analysing task complexity according to Van Avermaet and Gysen (2006:36)

The four suggested levels can be applied to reading or speaking skills and to tasks which aim at triggering the production of a specific grammatical structure. A picture description task, for instance, can be designed in such a way that it generates a particular structure. At the copying level, learners would receive more help, such

[19] The parameters in their original sense are formulated for measuring proficiency in text production tasks. However, the levels can also be applied to tasks that aim at measuring grammatical knowledge, as Table 4 suggests.

as identifying right or wrong sentences (*The man doesn't feed the dog* or *The trees aren't yellow)*. On the descriptive level, learners would have to complete prefabricated sentences and fill in words or simple phrases, for example *The man* _____ *the dog* or *The trees aren't* _____[20]. The support that learners receive determines how complex a task is. Classifying the task in terms of complexity is beneficial when it comes to analysing the textbooks in the empirical part of this dissertation.

Moreover, task complexity can be raised or reduced depending on the contextual support learners receive for tasks, such as pictures that facilitate the comprehension of a text (cf. Duran and Ramaut 2006:63). Resetting task parameters in order to raise the complexity of a task is a common method used in textbooks, and above all in the differentiation of top and bottom set classes (cf. Cornelsen G21 D1 2006; Cornelsen G21 D2 2007). Furthermore, Duran and Ramaut have formulated three parameters for defining and measuring task complexity with regard to task design (cf. 2006:51). The first parameter comprises the representation of the world in a task, which refers to the topic's level of abstraction, the degree of visual support and the linguistic context; the second addresses the processing demands for performing the task, that is, the level of processing (high or low) and the modality of output (written/spoken); the third parameter includes features of the linguistic input, such as vocabulary, syntactic complexity, text structure as well as text length. Duran and Ramaut rank different task properties on a continuum from simple to complex (cf. 2006:52-53). The following table summarises the parameters [21]:

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[20] The latter example shows that learners do not only have to form negative statements, they also need to process the sentence for meaning and to use their language skills for inserting any possible word or phrase that deviates from the picture. To do so, students have to understand the negative implication of the sentence. According to Duran and Ramaut, tasks of this type are the most frequent ones in the foreign language classroom, especially in initial stages of learning (cf. 2006:63).

[21] The subcategories (4) and (5) relate to the individual levels of processing as presented in Table 4.

(A) WORLD	(1) Level of abstration	*concrete* ⟷ *abstract*
	(2) Degree of visual support	*low* ⟷ *high*
	(3) Linguistic context	*a lot* ⟷ *little*
(B) TASK	(4) Level of information processing *What do students have to do?*	*low* ⟷ *high*
	(5) Modality *How are answers outcomes produced?*	*simple* ⟷ *demanding*
(C) TEXT	(6) Vocabulary	*frequent* ⟷ *infrequent*
	(7) Syntax	*simple* ⟷ *complex*
	(8) Text structure	*explicitly structured* ⟷ *implicitly structure*
	(9) Text length	*short* ⟷ *long*

Table 5: Parameters for determining task complexity according to Duran and Ramaut (2006:52-53)

The table implies that task complexity can be modified by resetting the parameters. The degree of visual support, for instance, can be rather low, while the syntax remains. This way parameters can be manipulated. Textbooks provide tasks for teachers, who finally must decide how far they reset the parameters.

2.2.4 Properties of Tasks

The previous sections in Chapter 2.2 offer a potential approach to analyse and evaluate textbooks and their role in foreign language acquisition and teaching. Table 6 summarises the major parameters discussed in 2.2:

Input	**Output**	
	Task Design	***Task Complexity***
comprehensible input: • 'i+1' • frequency • salience	holistic tasks: • meaningful target outcome • authentic use of language	raising the level of processing according to: • world • task • text
attracting attention and supporting noticing by *input enhancement* (e.g. input flood, highlighting, etc.)	activation of more than only one subsystem of language (i.e. not only grammar)	

Table 6: Summary of the task requirements with regard to input and output factors

Textbook compilers ideally need to adapt to linguistic theories and research findings by taking into account major concepts such as noticing and attracting attention. Moreover, the Input Hypothesis implies that focus on form is necessary to some extent in order to shift the learners' attention to a particular structure (cf. Krashen 1985, 1994). The input must be slightly beyond the learners' current level of competence to make learners aware of the gap in their IL system and to initiate acquisition (cf. Krashen 1985, 1994). Furthermore, the findings of the 1970s morpheme order studies indicate that learners acquire frequent and salient structures more easily and earlier than structures that are less frequent and inconspicuous (cf. Larsen-Freeman 1976a; Goldschneider and DeKeyser 2001[22]). Textbook compilers must adapt to these findings when designing new teaching material. If learners perceive a structure as frequent and salient, they are more likely to notice and to process it. Consequently, texts should consider the principles of input flood and skewed input (cf. Oxford and Lee 2007; Van Patten 1996, 2008). As input alone fails to promote acquisition, tasks that offer opportunities for learners to use the language should be included in textbooks. In TL performance, learners can validate, modify, strengthen or reject their IL hypotheses. Therefore, output is an integral part of the foreign language classroom. It is essential that tasks offer authentic situations and meaningful contents to the learners. Analytical tasks, i.e. exercises focusing on grammar exclusively, can draw the attention towards a structure while simultaneously emphasising its meaning. However, grammar exercises fail to promote the TL competence of learners, as they activate only one part of the IL system while neglecting others. As Samuda and Bygate (2008) claim, tasks should be holistic in order to activate more than one subsystem of the language faculty. Holistic tasks are more suitable in the L2 classroom, since learners have to retrieve the respective knowledge from more than one domain of their IL system. According to the Cognition Hypothesis, those tasks are considered more complex, making learning more efficient (cf. Robinson and Gilabert 2007). As Table 6 suggests, teachers can use various ways of raising the parameters of task complexity, depending on the competence they wish to support.

[22] Goldschneider and DeKeyser (2001), drawing on their analysis, exclude frequency as a potential factor. However, they acknowledge that research has not arrived at a consensus on this issue.

2.3 Summary

This chapter has provided the core principles this dissertation draws on by focusing on essential findings in SLA research and foreign language didactics. Both disciplines are indispensable for TEFL, as they can account for how learners process the input in the classroom, what they in fact acquire and how textbook design can respond to the learners' needs. In the empirical sections, the previously discussed concepts and theories are considered for analysing the results of the learner data.

3 Practical Background: Foreign Language Teaching

This chapter provides essential background information on the institutional framework and the study group. The knowledge about the curricular standards in Germany for TEFL is important for analysing how students learn English. Section 3.1 addresses the governmental regulations in schools, followed by a presentation of the microstructure in 3.2. This includes the curriculum of the particular school where the study was conducted as well as a presentation of the test group. Finally, 3.3 focuses on the methodology of the empirical parts of this dissertation.

3.1 Macrostructure: Curricula Design

In initial stages of learning English, German secondary schools use textbooks that adapt to the methods used in primary schools, such as singing or playing in English. The first teaching units in secondary schools, starting with Year 5, aim at slowly eliminating the differences between students previous English lessons and those without. In Cornelsen G21, D1 (2006), the so-called *Welcome* unit employs games, songs and drawing activities, intending to activate the learners' previous knowledge about the TL and to help teachers to detect the competence level of the students. The textbook uses additional support by illustrating new words, using smileys to express emotions or labelling words in pictures. At the same time, learners must always be self-referential in speaking activities, which Hesse's curriculum labels 'the directly experienced environment'[23] (cf. Lehrplan Hessen, Englisch Gymnasium 2010:16). The general objective is to raise the learners' motivation to participate in foreign language communication by offering contexts in which the learners can talk about themselves.

TEFL has been increasingly emphasising the learners' role in discovering TL rules rather than being passive recipients as in teacher-centred approaches. Teacher training involves recent methods for teaching English grammar, for example, by considering it as an instrument to produce language. The most common approach is the *text approach* (cf. Thornbury 1999), which combines deductive and inductive approaches to a grammatical structure. Learning in this context is implicit with a focus on form with the analysis of an isolated phenomenon in authentic speech samples. Thaler refers to this type of learning as *discovery learning* (cf. 2012:239). In the text-based inductive lesson, learners are presented a

[23] Translation mine ("die direkt erfahrbare Umwelt").

communicative situation, most usually a text or a dialogue. The teacher asks "questions that require the use of the new structure" (Thaler 2012:239), drawing the learners' attention towards a new structure. The learners then have to formulate the rules, whereas the teacher functions as an initiator of the learning process by helping the students to notice the structure and to detect the underlying rules (cf. Oxford and Lee 2007:123). Textbooks adapt to implicit-inductive teaching by employing skewed input with the respective structures in the provided material (cf. Oxford and Lee 2007:122). Moreover, textbook compilers use input enhancement in special cases, such as highlighting a particular structure by means of underlining or colour-coding. Both input flood and input enhancement facilitate the process of noticing the structure (cf. Oxford and Lee 2007:122). The meaning of the text is in the foreground and the form itself is discussed afterwards. With regard to negation, for instance, teachers might ask a question that stimulates the use of a negator after having introduced a communicative situation, mostly in the form of texts, with the target structure. Learners have to extract the structure from the text and use it. The teacher initiates the learning process, but remains in the background (cf. Oxford and Lee 2007:123).

After the introduction of a new grammar topic, learners have to formulate a rule that they write into a grammar book. Essential features of the structure, such as suffixes or auxiliaries, are highlighted as in the following examples:

(1) I **don't** watch TV.

(2) She **doesn't** like football.

Rule: We use *don't/doesn't* for negative statements and the infinitive – *doesn't* for *he/she/it*-subjects and *don't* for the rest.

When the learners understand the respective rules, they then need to apply them in other contexts. Initially, textbooks offer simple sentence completion activities (or, in other words, analytical tasks), which allow the learner to insert the correct form of the verb (cf. Samuda and Bygate 2008:7). As the knowledge representations are increasingly strengthened, or automatized (cf. McLaughlin 1990:125), the tasks become more demanding. This corresponds to the claims of the Cognition Hypothesis (cf. Robinson and Gilabert 2007:162). The pedagogic intention of this approach to foreign language teaching is to teach learners to be competent in

participating in authentic communication (cf. Robinson and Gilabert 2007:162) or, in other words, to shift from competence to performance.

3.2 Microstructure: School and Class Features

As the knowledge of the initial state of learners facilitates the analysis of IL development, a brief description of the school were the present study was conducted is necessary (cf. Larsen-Freeman 1997:144). *Bertha-von-Suttner School* in Mörfelden-Walldorf is located close to Frankfurt on Main. Sociologically, the region features a high number of immigrants and numerous children in classes have been raised bilingually.[24] Thus, in many cases English might not be viewed as the L2 but the L3. The school type is similar to British comprehensive schools. In the first two years, learners of all competence levels are taught in one class before being differentiated into top, middle and bottom sets in in English. The data were gathered in Year 5 and 6, that is, before differentiating the students into set classes. As a consequence, all competence levels were represented in one class. In order to prevent excessive or unchallenging demands, the students are allowed to choose tasks that are usually differentiated between difficult and basic. More skilled students are challenged and students who need additional support are not under pressure. The school setting can be considered representative, as classes feature all the competence levels, in contrast to grammar schools, which only high grade students attend.

3.2.1 School Standards and School Curriculum

In line with most schools in Germany, Berha-von-Suttner School has moved from an aim-oriented approach to learning, which includes targets that have to be fulfilled after a teaching unit, to a competence-oriented perspective on learning, as presented in 2.2.1. As a consequence, teachers and learners increasingly work with checklists that aim at measuring the learners' competences and at identifying potentially difficult areas that might need special emphasis in the learning process. A common feature of checklists is the initial phrase *I can* or *I know* whereupon learners judge

[24] Studies in sociology and sociolinguistics provide evidence that the second language that children with a migration background use tends to deviate from the standard variety, which is referred to as semilingualism (cf. Hansegard 1968). Characteristics are colloquial expressions, incorrect grammar use in both the L1 and L2 and code-switching (cf. Fthenakis 1981; Fthenakis, Sonner, Thrul and Walbiner 1984).

their individual degree of competence.[25] Checklists avoid a dichotomous evaluation, corresponding to the principles of SLA research that suggests that learners might know a rule, but struggle to apply it in a communicative task. Furthermore, the checklist points must cover the essential areas in foreign language learning, i.e. language (grammar), word fields (lexicon) and speaking (performance). Learners must develop proficiency in these domains, which constitute major components of the communicative competence. Working with checklists increases the learners' ability to critically reflect on their skills and to prepare them for the authentic, holistic language use.

In order to offer a more precise differentiation in the classroom, the school has introduced three periods of self-directed learning, which promotes the learners' ability to organise, document and evaluate the learning process (cf. Paradies et al. 2007:29). The learners receive a checklist with the necessary competences for a particular teaching unit. For each competence, additional material is provided and the learners usually start with those areas they find most difficult. For differentiation purposes, more advanced students receive more challenging material. When the learners finish an activity, they have to control their responses by means of a solution sheet, correct their mistakes and choose the next activity afterwards. The results of the empirical part of this dissertation can help schools to put emphasis on compiling further materials for self-regulated learning, since the data imply which areas of the TL learners find particularly difficult.

3.2.2 Test Group

The period of data elicitation encompassed 17 months with students who were in Year 5 and 6, their first years in secondary school. They had five 45-minute lessons of English per week. The initial lessons in Year 5 are comprised of dialogue tasks, role plays and text-based approaches to grammar (cf. Thaler 2012:241). The general aim is to provide learners with authentic speech situations and to practice the respective lexical fields. For instance, for *A Birthday Party* (cf. Cornelsen G21 D1, 2006), the learners have to prepare a role play looking for a perfect birthday present or preparing a party buffet. In order to solve the task, the learners need to consider

[25] The different degrees of competence are presented in various ways. Students, for instance, can use smiley faces that express their skill level, or they might use colours, such as green for 'good', yellow for 'improvable' and red for 'troublesome'. In the target group, the colouring system was used, since the learners were familiar with this way of reflecting their competence level from their textbook and their workbook (cf. Cornelsen G21 D1 Workbook, 2007).

grammatical structures of the TL, such as the determiners *some* and *any,* and use them in the production phase. This is highlighted in the following example:

(3) Let's buy her **some** socks.

(4) Has she got **any** good DVDs?

(5) No, she hasn't got **any**. We can buy **some**.

The learners practice the application of the two determiners in (nearly) authentic speech situations.

The test group consisted of 28 students who had had prior lessons of English, but without any explicit grammar teaching. As regards the learners' initial state, their previous experiences with the TL were of a playful type with singing and playing, thus restricted to basic communication without any generalisations about English and its grammar. In terms of grammatical competence, they were not more advanced than students without any previous knowledge of English. Their speech featured typical structures, such as formulaic sequences and simplifications, corresponding to R. Ellis' depiction of initial learner English:

> When learners do begin to speak in the L2, their speech is likely to manifest two particular characteristics. One is the kind of formulaic chunks [...]. Fixed expressions like 'How do you do?', 'I don't know', 'Can I have a ___?', 'My name is ___' figure very prominently in early L2 learning. [...] The second characteristic of early L2 speech is propositional simplification. Learners find it difficult to speak in full sentences so they frequently leave words out. [...]
> (2009:20-21)

Learners were able to respond to questions such as *What's your name?* or *Where are you from?*, but were unable to answer semantically similar questions like *Where do you live?*. Responses of this type show that learners drew on formulaic sequences in order to scan the input for meaning and to adequately respond to it. Furthermore, the issue of 'propositional simplification' (cf. R. Ellis 2009:21) was visible, since answers generally were incomplete sentences as the following two examples show:

(6) Where are you from?
- Mörfelden.

(7) What's your name?
- Tom.

In the light of the considerable overlap between the two examples and R. Ellis' observation of learner language, it seems plausible to claim that the learners in this study were on an average level.

Moreover, fourteen out of the 28 students had an L1 other than German, meaning that English, in fact, was their L3; however, their competence in German was native-like without indicating any migration background. They probably were more fluent in German than in their actual L1, which was not tested unfortunately. It is tempting to hypothesise that their L1 was German, their L2 the language they spoke at home with their parents and English their L3. The different second languages spoken[26] in the classroom were Spanish (3), Italian (3), Polish (1), Urdu (1), Turkish (4), Chinese Mandarin (1) and Serbian (1). The linguistic diversity might have an impact on the results, since crosslinguistic influence can be caused not only by German. In the case of the negation, for instance, all languages feature different ways of forming negative statements. Also, some languages, such as Spanish, permit subject omission, which might affect the results in Chapter 4. The different linguistic backgrounds of the learners will be relevant for the analysis of the data in the further chapters.[27]

3.3 Methodology

The following sections comprise the methodology used in the empirical part of this dissertation. The presentation of the examined features in 3.3.1 is followed by a description of how the data were elicited in 3.3.2. Finally, 3.3.3 elaborates on the approach used to analyse the data.

3.3.1 Target Structures

The study provides empirical data on structures that exhibit erroneous IL variation as hypothesised in 2.1.2. The emphasis is on areas of grammar that are particularly difficult for learners, while also being analysable. Analysable refers to structures that allow variation, i.e. diverse responses that facilitate the analysis of the current IL state in the three-stage development according to U-shaped learning (cf. McLaughlin 1990). It was argued that the degree of variation is insightful with regard to structures that are more difficult in foreign language classroom (cf. 2.1.2). As explained in Chapter 2, any response that deviates from the standard, target-like response is considered an IL variant in the analysis of the data. IL variation displays

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[26] The numbers in brackets indicate the number of students speaking the respective language.

[27] The questionnaires were completed anonymously, which complicates the individual analysis of the influence of the language background. The data can still account for crosslinguistic influence, however evidence is weaker due to the lack of individual analysis of specific data.

the learners' attempt to detect the correct TL rule. In the destabilisation stage, responses tend to feature more IL variation, since competing structures co-exist. As presented in Chapter 1, the areas of grammar in the scope of this study are the copula BE, negative statements and preterite formation. The structures are advantageous, as different forms for the same function exist. Negative statements, for instance, feature or lack *do*-support; preterite formation can be either strong or weak. Moreover, there is also disagreement in research in terms of a potential order of acquisition. The grammar topics are introduced relatively early in the foreign language classroom. The data in the empirical parts of the dissertation provide evidence for typical learners' errors and difficulties in acquiring a particular structure, since errors are a significant source for analysing the learners' responses over a longer period in time.

3.3.2 Data Elicitation

For each of the presented features in 3.3.1, three questionnaires were distributed, as learning allegedly proceeds in three stages (cf. McLaughlin 1990). Eliciting data at three different points in time is beneficial for analysing the learners' IL development. As discussed in Chapter 2, in Stage I, learner responses feature formulas and reproduced sequences from the previously experienced input. In Stage II, more errors hypothetically occur, reflecting the process of destabilisation and the learners' attempt to restructure their IL system. A decrease of the error rate and the number of IL variants both imply that the learners have adopted the TL construction into their IL system (Stage III). Examining the learners' progress in acquisition helps to identify which structures are particularly difficult. The time learners need for restructuring can be considered indicative of a structure's difficulty. The longitudinal analysis of IL development helps to identify potential problems and to intervene by modifying current teaching techniques. In some cases, for instance, more explicit teaching is required, as a structure causes more difficulties to some learners than to others (cf. Gass and Selinker 2008:391; Thaler 2012:240). The knowledge of developmental paths in FLA contributes to the compilation of more adequate teaching materials and tasks.

The questionnaires (cf. Appendix) were comprised of sentence completion activities, which Samuda and Bygate (2008) refer to as 'analytical tasks'.[28] The students had to employ the respective structures, as in the following examples:

(8) Copula BE:

```
Are you from India?          -Yes, _________________.
Is that your black baby dog? -Yes, _________________.
```

(9) Negation:

```
Jack's mum goes to yoga on Thursday. - No, ____________.
They come from London.               - No, ____________.
```

(10) Past Tense Formation:

```
I hate basketball. My father ____________ basketball too.
Jo and Dan go to school by bike. Yesterday, they _______ by car.
```

Sentence completion tasks stimulate responses with the target structure and inhibit other ones, which would complicate the analysis. Biased responses are advantageous, as they trigger the particular structure exclusively. The chance that structures outside the scope of this dissertation occur is limited. Furthermore, potential avoidance behaviour is minimised, since the responses require the use of the specific structure and do not permit others. Consequently, responses as result of avoidance are limited. In terms of cognitive demands and complexity, analytical tasks encourage the learners to focus on only one structure to perform a task. Students do not have to activate more domains of their IL system, such as syntax or semantics. According to the learning-acquisition distinction as presented in 2.2.1 (cf. Krashen 1994, 2003), analytical tasks require explicit rather than implicit knowledge. The learners can draw on their learnt system.

Despite the strong focus on form and knowledge rather than acquisition, this study and the respective results in the following chapters are representative, as performance requires linguistic knowledge. Therefore, analytical tasks are an acceptable and reliable source for detecting what learners know about the TL and how these knowledge representations change over time.

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[28] Analytical tasks, as defined by Samuda and Bygate (2008) strongly focus on form only and do not reflect the actual TL skills; they neglect aspects about the control of the TL. A learner may be able to complete gaps by using the past tense, but might fail to apply the it in discourse. Complex and authentic holistic tasks reflect the learners' competence more clearly, since they take into consideration the use of a particular structure in context. For practical reasons, analytical tasks were favoured over complex tasks, as isolated areas of the TL were the focus. The general TL performance is not in the scope of this dissertation.

3.3.3 Data Analysis

The data in chapters 4 to 6 were analysed both quantitatively and qualitatively. Analyses on both dimensions prove helpful, since "[a]ttempting some kind of quantification [...] serves as a way of checking the reliability of more qualitative analyses" (R. Ellis 1998:231). The data of each questionnaire set were analysed in terms of the errors that occurred and classified into categories. This is beneficial for analysing potential error sources and contributes to ascribing seemingly different errors to the same gap in the IL system. The following two examples of deviant responses illustrate that distinct errors can share the same error source:

(11a) `No, we play don't in the classroom.`

(11b) `No, I play not in the classroom.`

(11a) constitutes a syntactic error due to the erroneous placement of the negator, whereas (11b) lacks *do*-support. Errors as in (11b) have been frequently documented in studies on potential acquisition orders, as in the morpheme order studies of the 1970s (cf. for example Dulay and Burt 1973, 1974a, 1974b; Bailey, Madden and Krashen 1974; Larsen-Freeman 1975; Krashen 1977). In the light of considerable overlap in the results, the responses were interpreted as evidence for a natural order in L2 acquisition as a result of universal principles (cf. for example Dulay and Burt 1973, 1974a, 1974b). The examples (11a) and (11b) imply differences in terms of the acquisition of *do*-support. However, both reflect the German syntactic order in negative statements, since German makes use of postverbal negation in contrast to English, which features preverbal negation for full verbs. On the one hand, the examples point at a different error source, which is the deficient acquisition of *do*-support; on the other, they share the same deviant structure, i.e. postverbal negation.

The errors were counted and analysed as to their distribution (cf. Appendix). The number of responses for each IL variant contributes to determining which IL variants occur more frequently. This enables researchers to identify what exactly students find difficult. As a consequence, potential obstacles can initiate the compilation of more adequate teaching materials in accordance with the learners' actual needs.

4 The Copula BE

The first verb in the foreign language classroom is the copula BE and its respective forms. Its importance is obvious with regard to educational standards, which demand that learning should start from the self and the learner's own realm of experience. As students are involved in basic communication about their identity, the first sentences in the textbook satisfy the need to introduce oneself (examples taken from Cornelsen G21 D1 2007:8, emphasis mine):

> Hi! My name **is** … What**'s** your name?
> I**'m** … years old. How old **are** you?
> I**'m** from … Where **are** you from?

The reason for introducing BE relatively early is the suppletive paradigm (*am, are, is*). The sooner learners encounter the structure and actively use it, the sooner they store it. As presented in Chapter 2, there is evidence that frequent forms are stored as formulaic sequences in initial stages of learning. The following section approaches the acquisition of BE by drawing on the principles of U-shaped learning and restructuring. It is essential to analyse which errors predominantly occur at which stage of learning.

4.1 L1 Acquisition of BE

Studies on the acquisition of the copula forms in the L1 are relatively rare compared to the extensive research conducted on the acquisition of other structures, such as verb inflection (cf. Brown 1973; Dulay and Burt 1974b; Bailey, Madden and Krashen 1974; de Villiers and de Villiers 1973). However, all studies provide evidence that BE is one of the earliest structures that emerge in children's language. Especially the 1970s morpheme order studies show that in both L1 and L2 acquisition the copula forms are acquired considerably early (cf. Dulay and Burt 1973, 1974a; Bailey, Madden and Krashen 1974). Kuczaj (1986) is an example of research focusing solely on the acquisition of the forms of BE in the L1.[29] Kuczaj's study shows that the occurrence of the individual forms of BE in child speech varies, meaning that *is* might occur earlier than *are* or *am* (cf. 1986:113-114). Kuczaj claims that each child acquires another form of BE initially, which he attributes to individual differences (cf. 1986:114). The forms underlie highly

[29] Kuczaj (1986) conducted a longitudinal study with his two children Abe and Ben. Additionally, he analysed cross-sectional samples of fourteen other children from 2;6 to 5;6 in half year intervals.

specific rules varying across every individual and depend on the distinctive development of each child (cf. Kuczaj 1986:111). Furthermore, the results imply that the acquisition of the forms of BE is gradual and evidence for the emergence of all forms at once is relatively rare (cf. Kuczaj 1986:114-115). The author defines three major response categories between the age of 2 and 5, that is, (1) the correct use of BE and its forms, (2) the incorrect use and (3) copula omission. As the developmental path for each child is different, significant variation is observable among each individual and generalisations as to which form of BE emerges first are hard to formulate (cf. Kuczaj 1986:113). Kuczaj attributes copula to the semantic emptiness of BE (cf. 1986:115). Since children do not ascribe any specific meaning to the individual forms, they regard them without relation to the copula BE (cf. Kuczaj 1986:115). Furthermore, Kuczaj accounts for differences in the age of ultimate attainment and in the placement of the copula in a sentence (cf. 1986:113). Some children position copula forms in sentence-final positions (**there spoon is*), others in sentence-internal ones as in **he be there* (cf. Kuczaj 1986:113).

Instances of copula omission are essential in recent research on the acquisition of BE. Becker (2002, 2004) analyses this phenomenon in learner language in terms of grammar and processing. Grammar-based accounts hold that there are semantic differences in sentences which affect the probability of copula omission (cf. Becker 2004:160). Nominal predicates, which denote permanent properties, as in *Mommy is a girl*, require an overt copula. In contrast to that, children tend to omit locative predicates signifying temporary properties, as in **My pen down there* (cf. Becker 2004:160). Processing-based accounts suggest that locative predicates, as for example in *It's on my slipper,* are omitted, since they tend to be syntactically more complex in terms of processing due to the prepositional phrase. Nominal predicates (**Dose are Donald Duck safety rules*) are light constituents, thus, less complex than locative predicates and can be processed more easily, since they require less cognitive effort (cf. Becker 2004:162)[30].

The two exemplar studies by Kuczaj (1986) and Becker (2004) on L1 acquisition of BE show, first, that acquiring the copula forms is successive and depends on the individual learner; secondly, copula omission apparently is a pertinent and common phenomenon in children's speech. Research suggests various reasons for omitted copula, such as semantic emptiness (cf. Kuczaj 1986),

[30] Becker herself is critical about the processing-based account, as her study lacks empirical support for processing constraints (cf. Becker 2004:164).

semantic differences between predicate types (cf. Becker 2004), and processing constraints on heavy constituents. The low number of reference studies implies a lack of empirical research on L1 copula acquisition.

4.2 The Learning Stages

For the purpose of eliciting representative data for the three learning stages, the first questionnaire was distributed prior to the introduction of the forms of BE. As the different forms of the target structure had not been taught explicitly, learners had to rely on previously encountered structures. In general, the learners' knowledge in this stage is most likely to be exemplar-based (cf. McLaughlin 1990). Sentence completion tasks require learners to activate previously perceived structures and to complete the gaps by drawing on the correct copula form from their stored exemplars. Students use their declarative memory, which encompasses the "learning and storage of facts", meaning that "learners can retrieve that information when called upon to do so" (cf. Gass and Selinker 2008:242). The information that learners use consists of the sequences that they have memorised.

In the next stage, after the introduction of BE, a second questionnaire was distributed. This stage allegedly marks the destabilisation stage. After a period of correct TL use in Stage I, more errors hypothetically should occur in Stage II, reflecting the learners' difficulties with incorporating the target-like distribution of the structure into their IL systems. With regard to the copula forms, the students might, for instance, confuse the forms (**I is*, **he are*, etc.). These errors reflect the learners' attempts to attribute the copula forms to their respective subjects. Additionally, learners are likely to respond in more diverse ways, which should be reflected by an increase in the number of IL variants as Table 7 suggests:

IL variant	**error**	***example***
IL variant 1	erroneous form	**I is twelve years old*
IL variant 2	inclusion of another morpheme	**I he's twelve years old*
IL variant 3	inclusion of wrong word	**I good twelve years old*
IL variant 4	copula omission	**I Ø twelve years old*
IL variant 5	…	...

Table 7: Examples of potential IL variants in Stage II

In Stage III, learners have more practice in using the forms of BE after having automatised the structure and strengthened their knowledge. The Stage III questionnaire is identical to the one distributed in Stage II. However, an increase of accuracy does not imply that the students have memorised the answers. First, the questionnaires were neither discussed in class afterwards nor given back to the learners, which means that the students did not know the correct answers. Second, it is highly unlikely that the students were able to memorise such a large number of sentences. Third, the interval between Stage II and III was too long to memorise the whole set of sentences. Thus, the expected improvement in the third set should most likely reflect the incorporation of the distribution of the copula forms. The following table depicts the dates of the three questionnaires:

Stage I	Stage II	Stage III
September 23rd, 2011	November 3rd, 2011	December 16th, 2011
after 15 teaching units (90mins)	after 10 teaching units (90mins)	after 15 teaching units (90mins)

Table 8: List of the dates and number of teaching units before each questionnaire

The results in Stage I are discussed in detail in section 4.3, followed by a comparison of the results in the first stage with the data gathered in Stage II and III. Comparing the results in each stage helps to trace the development of copula acquisition and facilitates to relate the data to the previously presented theories of U-shaped learning and restructuring. The hypothesis on IL variants formulated in Chapter 2 predicts a higher number of response types in Stage II, reflecting the difficulties of learners when incorporating the target-like rule into their IL system.

4.3 BE – Stage I

A look at the teaching material implies that the first stage in the acquisition of the copula encompasses the storing of chunks as in the following examples from Cornelsen G21, D1 (2006:8):

(1) What's your name? My name is … .

(2) My favourite colour is … .

(3) I am … years old.

(4) I am from … .

(5) Where are you from?

Learners allegedly reproduce the forms of BE in formulaic sequences that they have previously memorised (cf. R. Ellis 2009:20). The textbook schedules the explicit teaching of the forms with regard to subject-verb-agreement for later lessons.

The Stage I questionnaire includes 19 sentences and one control sentence in which the students also have to detect and employ the correct personal pronoun from the previous target sentence:

> And this **is** my mother. She **is** 35 years old. **She is** from Germany too.

Four sentences require the first person singular form (*am*); two are questions with the second person singular subject *you*[31]; four sentences have a multiword singular noun phrase (NP) as a subject with *is*; four others a determinant (*this, that*); three subjects were names or a third person singular pronoun; finally, two sentences required the third person plural form *are*. The first and the second person plural forms were excluded, since the learners had not encountered the pronouns *we* and *you* in the previous input. The following table summarises the students' responses in Stage I and to which extent the IL variants in initial learning occur:

Type of Form	***Example***	**n (512)**	***%***
correct form	*Her name **is** Martina.* *They are twins.*	418	***81,64***
phonological similarity	**They a twins.* **They ar twins*	8	***1,56***
erroneous contraction	**Thats in Germany.* **They 'are twins.*	27	***5,27***
addition of morphemes	**That it's in Germany*	26	***5,08***
copula omission	**That Ø right!*	20	***3,91***
erroneous form	**They is twins.* **Where am you from?*	13	***2,54***

Table 9: IL variants in the Stage I questionnaire and their respective relative percentage of occurrence

[31] As regards *you are*, the only context that the learners were familiar with was the question *Where are you from?*, which the vocabulary section in Cornelsen G21, D1 translates as a whole, i.e. 'Wo kommst du her?', rather than sequentially (cf. 2006:151). For this reason, the Stage I questionnaire comprised only questions of this type.

The table shows that the accuracy rate is relatively high (81,64%). Contraction errors in particular forms, such as *it is* as **its*, *that is* as **thats* and *I am* as *Im* are not necessarily wrong, as the forms are correct in phonological terms; they merely lack the apostrophe, which indicates two separate words. The learners failed to analyse the function of the apostrophe as a grammatical indicator of contraction. The same applies to forms that are phonologically similar to the target forms (**a* or **ar* instead of *are*). These responses cannot be regarded as errors in the IL grammar system itself; they rather constitute errors resulting from the orthographic rules of the TL. In the case of *are*, for instance, the silent <r> in non-rhotic varieties of English, such as RP (the reference accent in German TEFL textbooks), might have caused spelling errors, resulting in phonological similarity. Errors in contraction and orthography therefore are not necessarily grammatically incorrect. Clearly incorrect forms encompassed only the use of another form of BE (**They is twins*: 2,54%), the inclusion of other morphemes (**That it's in Germany*: 5,08%) or copula omission (**They Ø twins*: 3,91%). Deviant forms in this stage of learning occurred at a relatively low frequency (11,53%), whereas, in nearly 90% of the cases, learners produced acceptable copula forms.

The data elicited in the Stage I questionnaire require detailed observation in order to analyse a potential effect of the respective subjects on the choice of copula forms. Some subjects might cause more errors than others, which would reflect a higher degree of difficulty in acquisition. The main argument of this dissertation states that a high percentage of errors implies that a structure is more difficult for learners. The following sections focus on the different subjects in the target sentences and the IL variants produced by the learners.

4.3.1 First Person Singular *am*

The four target sentences requiring the first person singular of BE were taught in the context of introducing oneself, as in *I'm from ...* or *I'm ... years old.* The following table summarises the various types of responses.

correct	19(18) 18(18) 20(19) 19(18)	27 27 27 27	*I am from* *I am from* *I am … years old* *I am … years old*
	76	**108**	**70,37%**
erroneous contraction	6 6 5 5	27 27 27 27	**Im from* **Im from* **Im … years old* **Im … years old*
	22	**108**	**20,37%**
copula omission	2 2 1 1	27 27 27 27	**I Ø from* **I Ø years old*
	6	**108**	**5,56%**
erroneous copula form	- 1 1 2	27 27 27 27	 **I are from* **I are … years old* **I is … years old*
	4	**108**	**3,7%**

Table 10: Summary of the different types of responses for the first person singular of BE (number in brackets indicating the use of the contracted form *I'm*)

The accuracy rate was considerably low at approximately 70% (76 of 108 responses). Furthermore, the preferred use of contracted forms is striking. A total of 96% used *I'm* and only three responses featured *I am*. This obviously strong tendency to use contracted forms reflects the reproduction of the forms as introduced by the textbook, which is considered as typical of initial stages of learning (cf. R. Ellis 2009:20-21). Students rarely analyse *I'm* as consisting of two separate words, i.e. *I* for 'ich' and *am* for 'bin'. They rather reproduce a whole unit signifying the German equivalent 'ich bin'. Consequently, the individual constituents carry hardly any meaning. They create a meaning only as a whole chunk ({*I'm*} for 'ich bin' versus {*I*} + {*am*}). Although the erroneously contracted forms (**Im* instead of *I'm*) are deviant, they can be regarded as acceptable responses as discussed previously. The form of BE is in its correct phonological form with an incorrect graphemic representation. Contractions, erroneous or correct, reflect the way children learn a language, that is, by memorising sequences without analysing the individual meaningful linguistic units (cf. R. Ellis 2009:20). Since erroneous contractions are considered non-deviant in this dissertation, the percentage of acceptable forms increases, reaching more than 90%.

The degree of variation in the learners' responses was relatively low with only four IL variants. Most of the response types comprised either correct forms or the erroneously contracted form **Im.* The unacceptable forms featured copula omission (5,56%) or the use of another form of BE, as in **I are* or **I is* (3,7%). Furthermore, the addition of another morpheme, as in **That it's in Germany*, was absent in the sentences with first person singular subjects.

4.3.2 Second Person Singular *are*

All the target sentences requiring the second person singular form of BE were questions, as the students had learnt *are* only in the context of asking for information, as in *Where are you from?* or *Who are you?*. Table 11 lists all the IL variants that occurred.

correct	22 22	27 26	*Where are you from?* *How old are you?*
	44	**53**	**83,02%**
phonological similarity	4 2	27 26	**ar, a* **ar, a*
	6	**53**	**11,32%**
copula omission	- 2	27 26	 **How old Ø you?*
	2	**53**	**3,77%**
erroneous copula form	1 -	27 26	**Where is you from?*
	1	**53**	**1,89%**

Table 11: Summary of the different types of responses for the second person singular of BE

The accuracy rate was relatively high at 83%. It is plausible to consider the phonologically similar responses as deviant, but acceptable. As discussed in the previous section, learners in initial stages seem to be highly influenced by the sound of a word (/weər ɑ: jʊ frɒm/). Apparently, they are tempted to spell the correct form *are* without <re>, as the non-rhotic RP does not pronounce the two final graphemes. The responses can be regarded as acceptable, since in oral communication the mismatch between graphemes and phonemes is hardly noticeable. Including the responses with phonological similarity to the correct responses raises the relative percentage of correct responses to 94,34%, Conversely, only three of 53 responses (5,66%) were incorrect, featuring deviant copula forms (**Where is you from*) or copula omission (**How old you?*).

The large number of correct responses with *are* as opposed to *am* reflects the formulaic representation of the copula forms. The learners were able to reproduce the correct form, as they had memorised the whole expression '*Where are you from?*'. As learners store frequent questions as whole chunks in their memory, the structures are more stable and less prone to errors (cf. Wray 2000:465). However, in later stages of learning, *are* might be susceptible to more errors, as formulaic sequences are not analysed in terms of grammar, but stored in the brain as one cluster. Learners might find it considerably difficult to analyse the individual constituents of the memorised phrases. It is tempting to hypothesise that the extent of destabilisation is higher in Stage II with second person singular subjects than with other subjects.

4.3.3 Third Person Singular *is*: Names and Personal Pronouns

This section analyses sentences with names and personal pronouns as subjects, i.e. light syntactical constituents in terms of phrase length.[32] Table 12 summarises the responses for BE with simple NP third person singular subjects:

correct	23 21 27(4)	27 27 27	*Dan is* *Jo is* *She is*
	71	**81**	**87,65%**
add morpheme	3 5 -	27 27 27	**Dan he/he's/it's* **Jo he's/I'm/Dan/he/it's*
	8	**81**	**9,88%**
copula omission	1 1 -	27 27 27	**Dan Ø eleven years old* **Jo Ø eleven years old*
	2	**81**	**2,47%**

Table 12: Summary of the different types of responses for the third person singular of BE with names or personal pronoun subjects (number in brackets indicating the use of contracted forms)

[32] Research in cognitive and variation linguistics suggests that light constituents are processed more easily than heavy constituents with multiword NPs (cf. for example Berlage 2009).The choice of the genitive, for instance, depends to some extent on the complexity of the constituents. Short phrases are more likely to form their genitive synthetically (*'s*-genitive), while, in complex ones, speakers prefer the analytical one, i.e. the *of*-genitive (cf. Rosenbach 2003). Further empirical support comes from studies on prepositions and postpositions that account for an effect of constituent complexity on processing capacity (cf. Berlage 2009).

The data reflect a considerably low degree of variation, as the low number of IL variants suggests. Responses with erroneous contractions or phonological similarity were absent. The relative percentage of correct responses was lower (87,65%) than in the previous sections, albeit still relatively high. The emergence of a new IL variant is visible in the table, i.e. the addition of morphemes. In 9,88% of the target sentences with a simple NP, the students included another subject, as in **Jo it's twelve years old*. In some cases, the added morphemes resembled a resumptive pronoun matching the target subject, as in **Jo he's twelve years old*.[33] This IL variant was restricted to two sentences with names as subjects, as the following examples demonstrate:

(6) Dan is eleven years old
*Dan **he's** eleven years old
*Dan **it's** eleven years old.

(7) Jo is eleven years old too.
*Jo **he's** eleven years old too.
*Jo **it's** eleven years old too.
*Jo **I'm** eleven years old too.

The students offered numerous variants with added morphemes, implying that subjects that are not personal pronouns constitute more difficult input for learners in initial stages of learning. The results reflect the students' need for a comprehensible subject which they can process more easily. Ideally, the subject is a person pronoun. If it is not, students include a pronoun in order to make the sentence more accessible. This mirrors the nature of the acquisition process in early learning, which usually comprises the incorporation of formulaic sequences (cf. R. Ellis 2009:20). Personal pronouns are less complex, since they are light constituents. Additionally, the class of personal pronouns is closed, which helps learners to memorise them more easily. Names, by contrast, form an open group due to the infinite number of potential phrases that can fill the subject slot. Thus, year 5 students seem to struggle with sentences without personal pronouns, as they lack the ability to substitute syntactic constituents, i.e. to replace names by less

[33] Resumptive pronouns are grammatical in some languages, whereas they are typically not in English. However, they are not uncommon in English (cf. Beltrama and Xiang 2016). The use of resumptive pronouns has been documented in numerous other studies as well. Structural complexity is considered one determinant of their occurrence, since "a resumptive pronoun provides a clear perceptual cue" in complex syntactic structures with ambiguous dependencies or information gaps (Beltrama and Xiang 2016:17). Relative clauses, for instance, feature structures that can result in information gaps, which are filled by resumptive pronouns (cf. Keffala 2013).

complex, formulaic personal pronouns. The prototypical sentence with *is* features a personal pronoun in the subject slot, and learners are more likely to struggle whenever the subject is not a pronoun, but a name.

4.3.4 Third Person Singular *is:* Multiword NPs and Interrogatives

Multiword NPs and interrogatives form a separate group, as at least the first can consist of complex syntactic trees. The NP can be extended by means of coordination and specification without changing the meaning. Since the subject slot can take an infinite number of potential NPs, which learners certainly cannot store as chunks, complex phrases might be an issue of difficulty. Problems should be visible especially when learners unpack the formulas in Stage II.

For reasons discussed in the previous sections, cases of erroneous contractions were considered as deviant but acceptable responses in terms of phonology. The relative percentage of correct responses with multiword NPs was more than 93%, thus, similar to the subjects analysed in the previous sections. Two findings are striking. First, there is the lower use of the contracted variant *what is*, which in fact was taught to the learners as *what's*. Secondly, a higher number of IL variants than for other subjects is observable. The following table illustrates the diverse response types in the case of multiword NPs and interrogatives:

correct	25	28	*My name is*
	24(16)	26	*What is*
	26	27	*My name is*
	25	27	*Her name is*
	100	**108**	**92,59%**
erroneous contraction	-	28	
	1	26	**Whats*
	-	27	
	-	27	
	1	**108**	**0,93%**
copula omission	2	28	**My name Ø …*
	-	26	
	-	27	
	-	27	
	2	**108**	**1,85%**
add morpheme	1	28	**My name it's*
	1	26	**What you your name?*
	1	27	**My name it's*
	1	27	**Her name it's …*
	4	**108**	**3,7%**
erroneous copula form	-	28	
	-	26	
	-	27	
	1	27	**Her name am*
	1	**108**	**0,93%**

Table 13: Summary of the different types of responses for the third person singular of BE with multiword NPs or question words as subjects (number in brackets indicating the use of contracted forms)

First of all, the relatively high usage of uncontracted forms is striking. The results in 4.3.1 imply that very few students analysed the sequence *I'm* as consisting of the two morphemes *I* and *am*. The input the learners had received from the textbook included only the contracted variant *what's*. Learners, in initial stages, do not seem to know that contracted equal uncontracted forms. The preference for contracted forms in the case of *I'm* can be attributed to frequency of occurrence. The high use of uncontracted forms in the case of *what is* provides a contrast to the previously presented hypothesis claiming that learners retrieve stored chunks in L2 speech production. The analysis of the input shows that learners experience more variation with third person singular subjects and the respective form of BE than they do with other subjects. The textbook exclusively uses the contracted form except for contexts which forbid contraction (**This's*). Learners are taught that *'s* and *is* are substitutable and can be used alternatively. By contrast, the textbook always

presents the subject *I* with *'m* as its respective copula form. This can account for the low relative percentage of occurrence of *I am* in the learners' responses.

Completely erroneous IL variants occurred at a relatively low frequency with a total of nearly 7%. The most common error was the inclusion of another morpheme. Responses, such as *My name it's Dan* or *Her name it's Martina,* featured the use of a resumptive pronoun, preferably *it*, which has also been observed in the previous section. It seems plausible to attribute the occurrence of resumptives to the learners' attempt to include a simple and transparent constituent to the multiword NP for the purpose of simplification and processing facilitation. Students seem to find it easier to complete the gaps if the preceding word is a pronoun. Multiword NPs tend to be more difficult for learners in terms of processing. The explanation appears to be debatable, as the relative frequency of occurrence was relatively low (3,7%). However, the low percentage might be attributed to the target sentences, such as *My name is [...]*. The learners might automatically choose the right copula form as the whole sequence is usually stored and proceduralised.

4.3.5 Third Person Singular *is*: Determiners

The third type of target sentences was comprised of the demonstrative pronouns *this* and *that* as subjects. They are highly formulaic due to classroom routines, such as answering in a chorus *Yes, that's right*. Due to this ritual in the foreign language classroom, learners tend to internalise the expression and can retrieve the information when asked to do so. Table 14 lists the responses that learners produced for these types of sentences:

correct	21(9) 24(10) 26 26	27 27 27 27	*That's in Germany* *That's right* *This is* *This is*
	97	**108**	**89,81%**
erroneous contraction	1 1 - -	27 27 27 27	**Thats* **That's*
	2	**108**	**1,85%**
copula omission	1 1 - -	27 27 27 27	**That Ø in Germany* **That Ø right.*
	2	**108**	**1,85%**
add morpheme	2 1 3 1	27 27 27 27	**That it's in Germany* **That it's right* **This it is /This it's* **This it is*
	5	**108**	**6,48%**

Table 14: Summary of the different types of responses for the third person singular of BE with DET as subjects (number in brackets indicating the use of contracted forms)

The accuracy rate was slightly higher than 90%, including IL variants with erroneous contraction. The students preferred both contracted and uncontracted forms with *that*. The use of uncontracted forms was higher than with first person singular subjects, indicating that learners more easily detected that *'s* and *is* can be used interchangeably. As suggested in the previous section, learners seem to deduce from the input that both forms exist and that both are applicable with third person singular subjects. The formulaic nature of the expressions *that's* and *this is* can also account for the absence of erroneous copula forms. Since the expressions are usually memorised, errors such as **this/that are* are absent. The remaining errors reflect that only very few learners struggled with the target-like form of determiners. The same errors as in the previous section occurred, i.e. the inclusion of resumptive pronouns (6,48%) and copula omission (1,85%).

4.3.6 Third Person Singular *are*

The target sentences with third person plural subjects consisted of a simple NP only (the personal pronoun *they*), as this was the only subject presented by the textbook in Stage I. The amount of input during the initial stage was considerably low. As a consequence, the learners' knowledge about constituent substitution for third

person plural subjects was rather limited. The following table documents the IL variants in the first stage:

correct	15(1) 15(1)	27 27	*They are twins* *They are twins*
	30	**54**	**55,56%**
phonological similarity	1 1	27 27	**They a* **They a*
	2	**54**	**3,70%**
erroneous contraction	1 1	27 27	**They'are twins* **They'are twins*
	2	**54**	**3,7%**
add morpheme	4 4	27 27	**They it's/you twins* **They it's/you twins*
	8	**54**	**14,8%**
copula omission	4 2	27 27	**They Ø twins* **They Ø twins*
	6	**54**	**11,11%**
erroneous copula form	2 4	27 27	**They is/'s* **They is/'s*
	6	**54**	**11,11%**

Table 15: Summary of the different types of responses for the third person plural of BE

The results imply that the students struggled with third person plural subjects, even though the subjects were personal pronouns, which learners usually prefer. Slightly more than 60% of the responses were correct, including the variants with phonologically similar forms and erroneous contractions (3,7% each). The rates were considerably low compared to the previous target sentences, which stimulated correct responses exceeding 90%. In addition to that, the degree of variation, indicated by the diverse response types, was higher than in the previous sections. As the table illustrates, the IL variants can be classified into six categories. It is plausible to hypothesise that the low number of correct responses and the high number of IL variants are both indicators of a high degree of difficulty.

One reason for the immense error rate is the low amount of input. Sentences with third person plural subjects rarely occurred in the textbook in Stage I. As the learners had been exposed to a very limited set of sentences with *they are*, they were not able to incorporate the structure into their IL system easily. The examples below depict the sentences presented by the textbook:

(8) `My mum and dad are from Australia.`

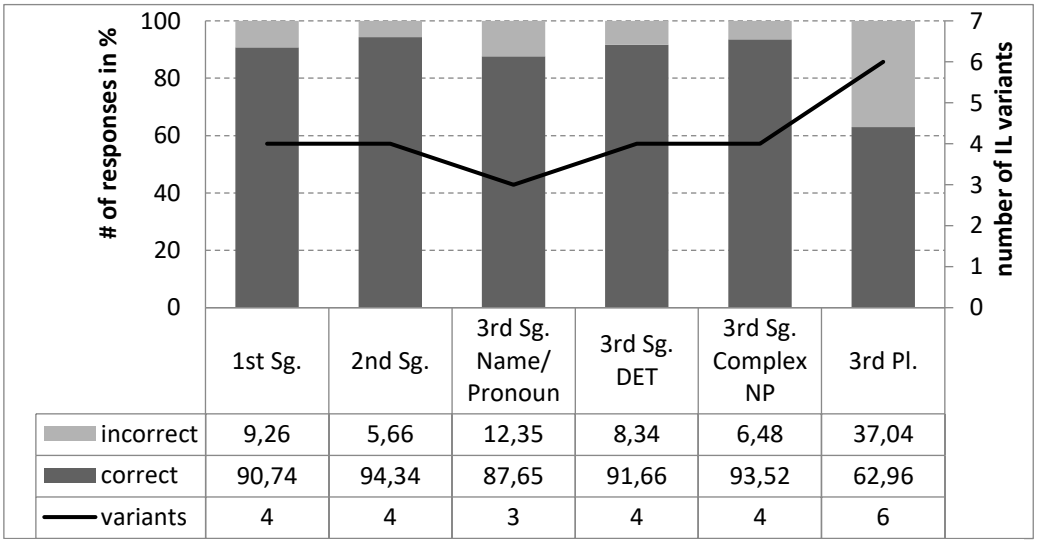
(9) They’re 12 years old.

(10) They’re from Bristol.

The low frequency inhibits the process of noticing the structure. Learners cannot acquire *they are* as easily as other subjects, since the textbook does not provide them with enough information about the structure and its distribution. Due to the missing input, the students apparently struggled with those target sentences and produced more deviant responses than in the previous sections. The high error rate and the number of IL variants both reflect potential difficulties in the future.

4.3.7 Discussion of Results in Stage I

The findings presented in the previous sections alone do not provide sufficient information of the learners’ IL development. However, understanding the struggles of the learner in initial stages of acquisition is insightful for detecting potential difficulties in the further acquisition process (cf. McLaughlin 1990:120). Figure 3 presents the results yielded in the Stage I questionnaires and allows comparison of the individual personal pronouns in terms of accuracy rates and number of IL variants.



	1st Sg.	2nd Sg.	3rd Sg. Name/ Pronoun	3rd Sg. DET	3rd Sg. Complex NP	3rd Pl.
incorrect	9,26	5,66	12,35	8,34	6,48	37,04
correct	90,74	94,34	87,65	91,66	93,52	62,96
variants	4	4	3	4	4	6

Figure 3: Error rates and number of IL variants in Stage I for the forms of BE

The figure illustrates that, in the initial stage of acquiring the respective copula forms, the learners struggled most with the third person plural, which both the comparatively low accuracy rate and the high number of IL variants reflect. The

most plausible reason is the lack of a sufficient amount of input as discussed in 4.3.6.

Furthermore, the results show that the personal pronoun *you* achieved the highest score. In 4.3.2 this was attributed to the formulaic nature of the target sentences, which learners reproduced in the questionnaire. In terms of IL variants, third person singular subjects with names or pronouns seemed to be easier to the learners, since the degree of variation was low. An analysis of the input that learners receive from the textbook shows that the sentences learners encounter most frequently feature the copula form *is* with *he*, *she*, *it* or names as subjects. The *Welcome* unit (cf. Cornelsen G21 D1, 2006) introduces five characters to students by using personal pronouns and names with the respective forms of BE:

(11a) This is Jack Hanson. Jack **is** 11 years old. He**'s** from Britol.

(11b) This is Sophie Carter-Brown. She's new in Bristol. She's 11 years old.

(11c) This is Ananda Kapoor. She's 11 years old. She's from Bristol too.

The examples reveal that learners are exposed to sentences with personal pronouns and names as subjects more frequently than with other subjects. Since acquisition allegedly is input-driven (cf. for example Abbot-Smith and Tomasello 2010:81), learners are more likely to incorporate those structures that repeatedly occur. It was noted in 4.3.1 that the only errors learners produced were with names in subject positions, whereas sentences with personal pronouns as subjects apparently did not cause any difficulties. It was suggested that the infinite number of potential names fitting into the subject slot can account for the difficulties with these target sentences.

(12) Jack
Tom
Ananda is
Marc
…

Personal pronouns, by contrast, form a closed word-class, supporting the learners in recalling the stored formulas.

(13) he
she is
it

This reflects the lack of competence in substituting one name with another or by a personal pronoun. In initial stages, learners seem to memorise sequences or even complete sentences and reproduce them. The learners have not yet incorporated the syntactic criterion of subject-verb agreement into their IL system. They rather extract the structure from the input and store it in their mental lexicon as a whole unit. As a consequence, erroneous responses predominantly occur in target sentences with subjects that belong to open word-classes, including names and multiword NPs. Learners face difficulties with finding the correct form of BE with subjects they have not encountered previously. The reproduction of formulaic sequences can also account for the high accuracy with the second person singular, as the target sentences resembled the input from the textbook (questions such as *Where are you from?*). Learners opt for recalling the respective chunk from their mental lexicon in order to complete the sentences rather than for detecting the target-like copula form. This can explain the high scores in target sentences with second person singular subjects.[34]

Attributing the low error rate to formulas is plausible for sentences with *you*; however, formulaic sequences fail to explain the high percentage of errors with determiners, which are stored as fixed phrases as well. A closer look at the IL variants shows that determiners can be considered as stored formulas indeed. In contrast to target sentences with other subjects, responses with completely erroneous forms of BE, for example **that/this are*, were absent. The error rate was higher than expected, only because learners added a pronoun to the phrase, as in **that it's in Germany*. In all cases, the personal pronoun that learners included was *it*, which requires the copula form *is*, such as in the determiners *this* and *that*. Although learners seem to store the phrases *this is* and *that's* as chunks, they apparently prefer personal pronouns as subjects and add *it* to the subject, which results in deviant responses. On the one hand, determiners seem to be formulaic in learner language in Stage I, as the overall correct use of the copula form reflects. On the other hand, they are a potential error source due to the learners' preference

[34] Interestingly, the results correlate with previous research on typological universals. Croft (2000), drawing on Dixon (1979) and Silverstein (1976), offers a hierarchy of accessibility of features. The suggested 'extended animacy hierarchy' involves a hierarchy of person (first and second person outrank third person), referentiality (pronouns outrank proper names and common nouns) and animacy (human referents outrank nonhuman animates and inanimates), resulting in a hierarchy considerably similar to the one presented in this dissertation, i.e. first/second person pronouns < third person pronoun < proper names < human common noun < nonhuman animate common noun < inanimate common noun (cf. Croft 2000:130).

for personal pronouns as subjects. The results imply a hierarchy in terms of optimal subjects for processing and speech production. Personal pronouns seem to be easier than determiners, followed by names. Multiword NPs obviously are the most difficult subjects for learners, as the high error rates suggest.

The findings help to analyse and explain the further development of the structure in the learners' IL systems. Students are likely to face difficulties when being taught the forms of BE explicitly, leading to destabilisation. In this transitional period, learner responses shift from exemplar-based reproduction to more rule-based production (cf. McLaughlin 1990). Learners tend to commit more errors when it comes to finding the correct copula form. This change in the level of representation should correlate with a high error rate. A decrease of errors indicates that learners have managed to ascribe the correct forms of BE to the respective subjects.

4.4 Development of BE

The following sections focus on the results of the questionnaires distributed in Stage II and III, starting with a general description of the development of the learners' errors in 4.4.1. The accuracy rates allegedly decrease in Stage II, followed by an increase in Stage III. In 4.4.2, the responses of each subject are analysed individually, which helps to detect potential difficulties with specific subjects.

4.4.1 General Development of Error Types

The analysis of the questionnaires in Stage II and III exhibits a U-shaped learning curve with a high number of target-like responses in Stage I, a decline in Stage II, followed by an increase in Stage III. Figure 4 illustrates the learning curve.

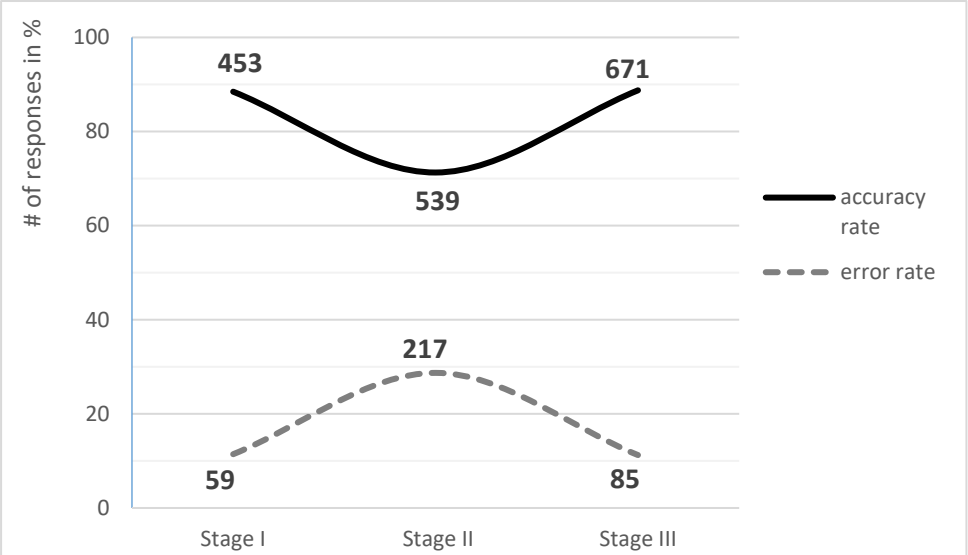


Figure 4: Development of accuracy and error rates for the copula BE

The U-shaped learning curve reflects the decrease of target-like performance, which apparently coincides with an increase of errors in Stage II. Table 16 displays the individual IL variants over time.

IL variant	Stage I		Stage II		Stage III	
correct *You are twelve years old*	81,64% *n=418*	**% 88,47**	68,78% *n=520*	**% 71,29**	87,3% *n=660*	**% 88,76**
phonological similarity *You ar twelve years old*	1,56% *n=8*		0,66% *n=5*		0,4% *n=3*	
erroneous contraction *Your twelve years old*	5,27% *n=27*		1,19% *n=9*		0,93% *n=7*	
negation *You aren't twelve …*	---		0,66% *n=5*		0,13% *n=1*	
add morpheme **You it's twelve …*	5,47% *n=28*	**% 11,43**	4,89% *n=37*	**% 28,71**	0,13% *n=1*	**% 11,24**
copula omission **You twelve years old*	3,91% *n=20*		9,52% *n=72*		2,38% *n=18*	
wrong word **You go twelve years old*	---		6,75% *n=51*		2,78% *n=21*	
erroneous copula form **You is twelve years old*	2,15% *n=11*		7,54% *n=57*		5,95% *n=45*	

Table 16: Development of the IL variants from Stage I to III

The data show that in the initial and the alleged final stage, approximately 88% of the produced copula forms were correct after a period of increasing error rates in

Stage II, as suggested by U-shaped learning accounts (cf. Lightbown 1985:177; McLaughlin 1990:121).

A closer look at the IL variants mirrors that the number of completely correct responses increased from 81,64% in Stage I, after an immense decrease in Stage II (68%), to 87,3% in Stage III. The rise of the accuracy rates correlates with a decrease of spelling mistakes and erroneous contractions, which both reflect that the learners had gained orthographic proficiency. It is plausible to attribute the progress in spelling to the evolvement of orthographic awareness, which is not directly related to grammar. Errors in spelling in Stage I cannot be traced back to the erroneous acquisition of copula forms. In the previous sections, spelling mistakes were considered as a result of cross-linguistic influence, especially in the case of the silent <r> in RP. After more exposure to the TL, the learners might have ceased to rely on the spelling rules of German, as the decrease of orthographic errors in Stage II implies. They began adopting the first grapheme-phoneme relationships of the TL. The same applies to errors in contracted forms. In Stage I, these errors were the result of formulaic language representations. Erroneous contractions indicated the lack of competence in analysing the sequences as two meaningful units separated by an apostrophe. As the data suggest, learners apparently begin to analyse contractions in the further stages as a personal pronoun and the contracted variant of BE. This explanation can account for the continuous decrease of contraction errors in Stage II and III.

Another striking issue addresses the occurrence of negations in Stage II. Responding with negative statements is not incorrect, as long as the copula forms congrue with the respective personal pronouns. However, responses of this type were not expected. As the copula forms were still correct, the responses were regarded as deviant but target-like. The students had encountered negations previously in the classroom. The occurrence of negative statements reflects the learners' active engagement with the structure and their attempt to incorporate it into their IL systems. In contrast to contractions, the students seemed to be aware of the different meanings that positive and negative statements signify. The emergence of negations is indicative of an increasing semantic awareness in sentence comprehension, since the learners used their linguistic knowledge and added the negator to the copula forms whenever they thought it applied to the target sentence:

(14) You are in our class.
You aren't in our class.

(15) I'm 12 years old.
I'm not 12 years old.

The examples show that a small portion of learners processed the sentences as to their meaning. While a positive statement in (14) would imply that the person referred to as *you* is indeed in the class, the negative statement conveys the opposite meaning. The same applies to example (15), which in its positive form states that the learner is twelve years old. Those learners who did not feel addressed to made use of the negative meaning *I'm not*. The examples show that learners, to some extent, process the sentences for meaning. Although this applies only to a small number of participants, the use of negative statements itself reveals that learners do draw on semantic cues for completing the sentences appropriately. This finding mirrors an increase in competence in the TL, since learners also seem to consider the communicative context of the target sentences.

The increasing number of correct responses and the decline of acceptable (but not targeted) responses both show that restructuring leads to a rise of accuracy rates. At the same time, the error rates in Stage II increased, followed by a decrease in Stage III. Figure 5 illustrates the development of deviant IL variants as listed in Table 16.

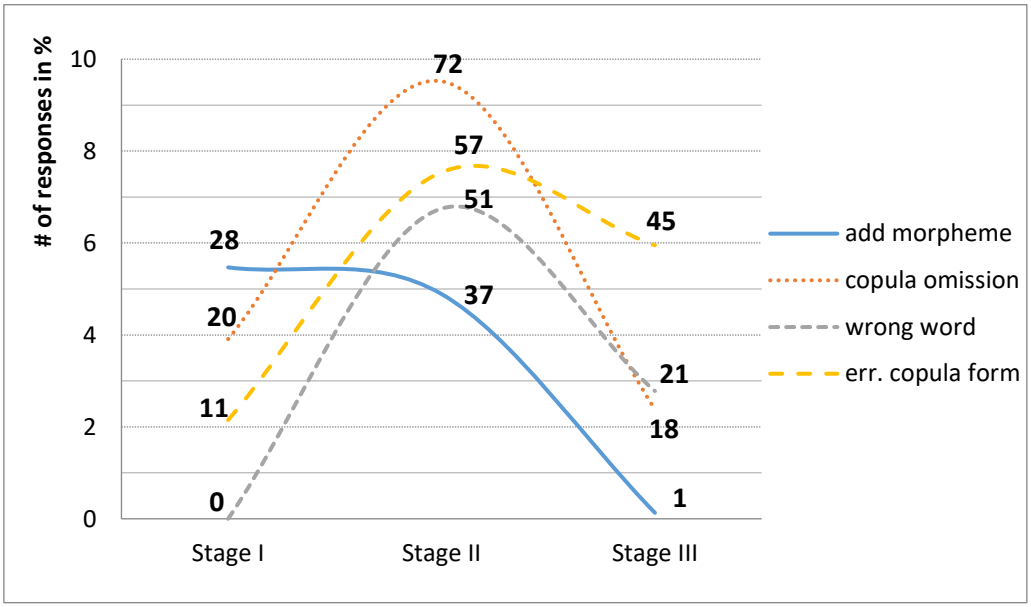


Figure 5: Development of the IL variants from Stage I to Stage III

The figure illustrates the expected inverse U-shaped curves. In Stage II, nearly all error types increased, mirroring the predicted difficulties that students faced at this stage of learning. The learners began to unpack the formulas they had memorised and analysed them as to their grammatical units. The formula *it's*, for instance, consists of the personal pronoun *it* and the copula form *is*, whereas the personal pronoun can be substituted by an infinite number of other third person singular subjects. The learners' IL systems were subject to destabilisation as they had to replace the previously stored formulas by systematic rules. U-shaped learning accounts hold that the transition from exemplar-based reproduction to rule-based production causes more errors, which McLaughlin refers to as 'strategy shift'.

> Formulas are gradually 'unpacked' and used as the basis for more productive speech. At this stage, the learner's speech is simple but more differentiated syntactically. […] The learner has at this point adopted a new strategy, one of rule analysis and consolidation. The shift from formulaic speech to rule analysis is another example of the transition from exemplar-based representations to more rule-based representations.
>
> (McLaughlin 1990:123)

Storing the copula forms and their subjects and applying them to other sentences is more effective and, above all, more economical for learners than memorising an infinite number of individual phrases and sentences (cf. Van Patten 1996; Robinson 2003a; Skehan 2010). In Stage II, the learners encountered severe problems when attempting to retrieve the chunks from their memory, which, in turn, caused them to rely on other strategies for fulfilling the demands. The transition that McLaughlin (1990) refers to is visible in the data. The decrease in the error rates in Stage III reflects the restructuring and reorganisation of the learners' IL systems. The result was a further increase of accuracy rates. Drawing on rule-based representations proved more effective to the learners than recalling previously stored chunks.

Responses with added morphemes form the only exception to the observed inverse U-shaped learning curves. Instances included resumptive pronouns as in, **My mother she's ...* or **My name it's ...*, which were attributed to the learners' need for a personal pronoun in the subject position in 4.3.3. The students attempted to simplify the sentence by drawing on a less complex, rather formulaic personal pronoun. This error type was more frequent compared to the other IL variants in Stage I, but it continuously decreased afterwards without any increase in Stage II. As sentences were memorised as chunks, the learners struggled with the target sentences that they had not stored. Consequently, applying stored sentences to other sentences in initial stages apparently proved highly uneconomical. The results

suggest that the learners, from Stage II onwards, deduced from the increasing amount of input that personal pronouns and names are substitutable by other constituents, such as heavy multiword NPs. By Stage III, the learners seemed to have acquired this rule, as suggested by the low number of incorrect responses (1 out of 756 responses).

In Stage II, a new strategy similar to added morphemes emerged, which was the inclusion of incorrect words, such as **His pencil case **there** at home*. Instead of adding a personal pronoun, learners began to employ only words without any copula form or, in very few cases, main verbs (*They go together*[35]). The first example reflects the learners' attempt to ascribe a grammatical function to a word which does not function as a verb. The responses might also show that the learners struggled to recall the correct copula form and, therefore, chose random words that they had previously learnt. Both explanations imply a strategy shift. Some of the learners made use of random words in their responses, others (probably more proficient students) seemed to know that the slot required a verb in order to form a grammatically correct sentence. As the figures show, errors of this type decreased with growing proficiency.

The error rate due to completely incorrect copula forms remained at a higher level in Stage III (5,95%) compared to the rate in Stage I (2,15%). However, the learning curve in Figure 5 exhibits the expected U-shaped curve and the overall error rate, in general, was considerably low. The slight decrease might imply that learners need additional time for the restructuring process. By contrast, the other error types consistently became rare, which highlights the learners' progress in acquiring the copula forms. Deviant structures with added personal pronouns and random words slowly disappeared, which highlights the overall improvement.

4.4.2 Person and Number Effects

An analysis of the IL variants with regard to person and number is necessary, as the distribution of errors might exhibit significant differences depending on the target subjects. The learning curves for the individual items are U-shaped, supporting the hypothesis that destabilisation and restructuring are inherent phenomena in the foreign language classroom. However, the degree of destabilisation depends on target sentences and the respective subjects, indicating that some subjects are more

[35] The sentence, in terms of grammar, is perfectly acceptable, albeit striking since full verbs had not been introduced at this stage.

difficult than others. Only two cases deviated from the expected U-shaped learning curves, i.e. the first person singular subject *I* and the third person singular with names and pronouns as subjects. These two subjects are analysed in 4.4.2.1 as deviant shapes, followed by the analysis of the non-deviant shapes in 4.4.2.2.

4.4.2.1 Deviant Shapes

The sentences with first person singular subjects did not correspond to the expected U-shaped learning curves, since a general decrease in the number of correct responses was visible in Stage II without any increase in Stage III. The number of correct responses remained at the same level (87,04%). Restructuring appears to be absent. The same applied to the number of IL variants, which did not decline in Stage III, as the following figure illustrates:

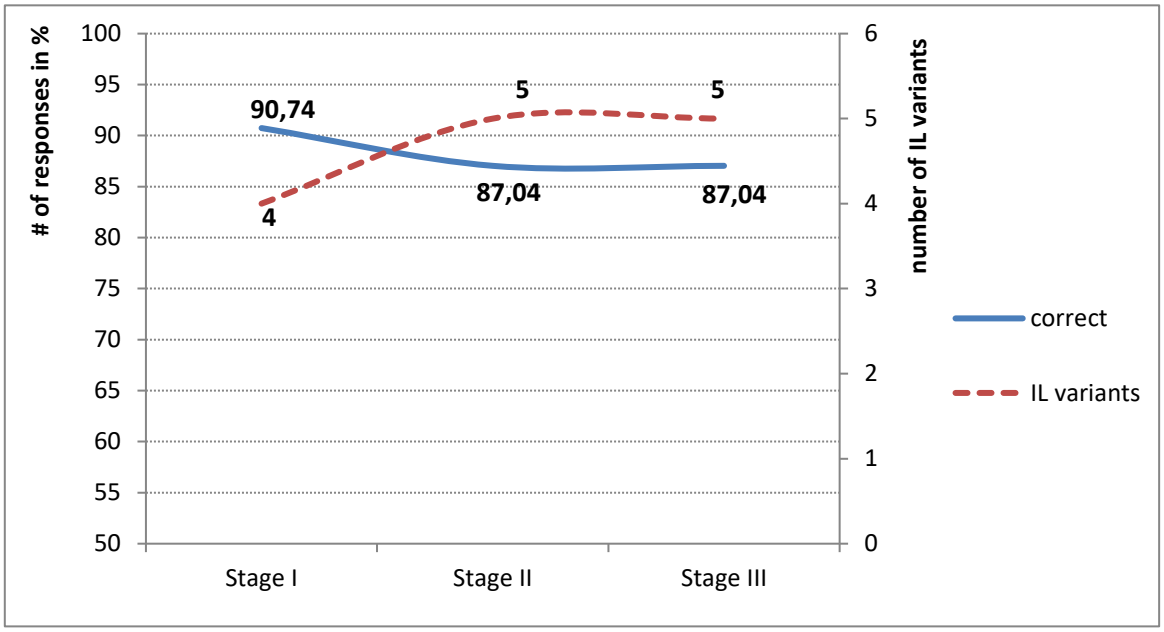


Figure 6: Learning curve for the first person singular and the development of the number of IL variants

Although the graphs provide only weak support for U-shaped learning, the results by no means shall be regarded as counterevidence. The copula forms were acquired; however, the level of representation had changed. The decrease in the accuracy rate might be indicative of a transition from exemplar-based to rule-based representation. The learners unpacked the formula *I'm* and analysed it as two units with distinct meanings, i.e. *I* for 'ich' and *am* for 'bin'. Formulaic sequences are usually stored in the learners' memory as fixed phrases, thus, errors are less likely to occur with those prefabricated chunks (cf. Wray 2000:465). Further evidence for

the transition comes from the development of uncontracted forms. In 4.3.1, it was argued that the learners produced only contracted forms with the first person singular subjects, as they had stored the phrase *I'm* as a whole chunk. They did not analyse the structure as *I* and *am*. In Stage II and III, learners increasingly produced uncontracted forms as the following table reveals:

	Stage I	**Stage II**	**Stage III**
contracted	96,05%	93,1%	63,44%
uncontracted	3,95%	6,9%	36,56%

Table 17: Development of the production of contracted and uncontracted forms

The high number of contracted forms in the initial stage reflects the formulaic nature of responses with only some of the students having analysed the cluster *I'm* as a subject with the respective copula form. The increasing number of uncontracted forms suggests that the learners probably began to unpack the previously stored chunks. The process of decoding formulaic sequences results in an increase of error rates (cf Wray 200:465). The number of errors attributed to deviant contraction also decreased, as Table 18 shows.

Stage I	**Stage II**	**Stage III**
20,37% *n=22*	6,48% *n=7*	0,93% *n=1*

Table 18: Development of the errors categorised as errors of erroneous contraction

The data show that the absence of U-shaped learning curves does not serve as counterevidence for restructuring. Consequently, the explicit teaching of the copula forms in Stage II resulted in a slight decrease of correct responses, but it promoted more accuracy with the other subjects. This corresponds to Lightbown's claim that "an increase in error rate in one area may reflect an increase of complexity or accuracy in another" (1985:177). The learners had moved from the reproduction of formulaic sequences to more rule-based production, which caused more errors in the case of the first person singular, while it reduced errors with other subjects.

The results for third person singular subjects with names and pronouns form the second exception to the expected U-shaped learning curves. Figure 7 shows a constant increase in the accuracy rates without any decrease in Stage II.

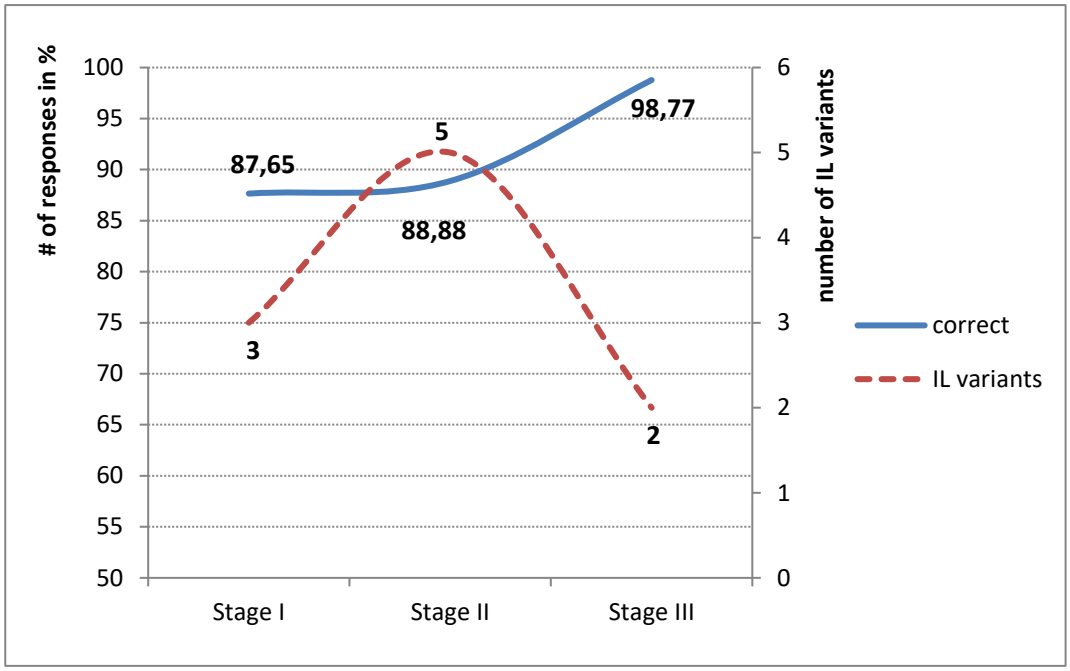


Figure 7: Learning curve for the third person singular with names and pronouns as subjects and the development of the number of IL variants

The students did not face any difficulties in applying the forms to the respective subjects that were either personal pronouns or names. In 4.3.3, it was argued that personal pronouns are optimal subjects, as they are simple in terms of processing. Simple and light constituents facilitate the processing of a structure (cf. Rosenbach 2003; Berlage 2009). The results of this study support this claim. The decreasing number of IL variants also reflects that learners do not tend to struggle with personal pronouns and names in subject positions. The data imply that these subjects required less effort from the learners.[36] Consequently, the students did not need to restructure their whole language system, since the strategy they had used so far did not cause errors in communication. The accuracy rate constantly remained at a relatively high level.

[36] The relatively low degree of difficulty with those subject types can be referred to the previously outlined extended animacy hierarchy, as suggested in Croft (2000). First person singular subjects and third person subjects with names and pronouns are on a higher rank and cause less difficulties to learners. The following section shows that second person singular subjects, too, trigger fewer errors than other subjects.

4.4.4.2 Non-Deviant Shapes

The other target sentences featured U-shaped curves as expected. However, the decrease in Stage II was more tremendous in some target sentences than in others. The same applies to the improvement in Stage III. Destabilisation was only slightly visible in sentences with determiners (*this*, *that*) or interrogatives (what) as subjects, as Figure 8 illustrates.

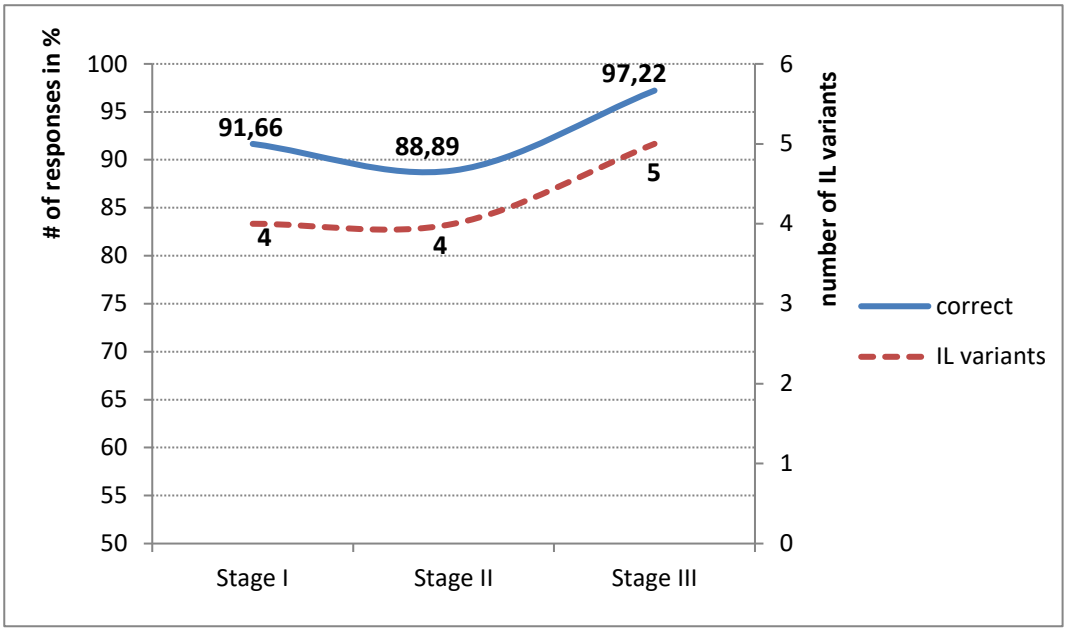


Figure 8: Learning curve for determiners as subjects and the development of the number of IL variants

The graph signifying the accuracy rate mirrors only a slight decrease in Stage II, followed by a rapid increase in Stage III. This reflects that subject-verb agreement for these subjects was acquired more easily than for the other subjects. Determiners can be considered as formulas that learners have stored in their IL system in the beginning of L2 learning. The learners encountered them in sentences, such as *That's right* or *This is Jo*. As those two subjects always take the verb form *is*, errors were absent. The learners' strategy to use the copula form *is* for *this* or *that* proved effective. Therefore, a modification of their IL system was unnecessary. What remains unclear at this point is whether the responses were the result of exemplar-based reproduction or whether they imply a progression to a rule-based production. As regards the number of IL variants, an unexpected, albeit slight increase was observable, which might indicate that the learners were still in the restructuring process in Stage III.

A general increase in accuracy is visible in the target sentences that were absent from the Stage I questionnaire (the first and second plural personal pronouns). In Stage II, the accuracy rate was relatively low compared to the other target sentences. However, it increased in Stage III, reflecting the improvement and providing evidence the restructuring.

	Stage II	**Stage III**
we are	71,6% (n=58)	95,37% (n=90)
***you are* (pl.)**	57,41% (n=31)	87,04% (n=47)

Table 19: Accuracy rates for the first and second person plural

In order to validate the hypothesis that learners have problems with the substitution of syntactic constituents, especially coordinating structures as a synonym for the pronoun *we*. These featured the structure 'name/noun + *I*', as in *Ananda and I are friends*. In Stage II, the learners seemed to struggle with the sentence, as they opted for a personal pronoun. This made them incorrectly perceive the subject as *'I'* instead of 'X + *I*', i.e. *we*. In the data set, 17 students (63%) chose *am* as the copula form, and only two students (7,41%) included the target-like form *are*.[37] The results suggest that the learners obviously drew on the preceding word for detecting the correct copula form. As *I* was the preceding word, students inserted *am*. They fail to analyse *I* as a part of the whole phrase, which can be substituted by the personal pronoun *we*. In the further stages, syntactic awareness apparently evolved, enabling learners to substitute coordinating phrases with personal pronouns, as the increase in the number of target-like responses reflects. In Stage III, 13 learners (48%) still committed this error, but 12 other students analysed the subject correctly and inserted the correct form of BE. The relatively high error rate suggests that the structure had not been fully acquired, but the increase in target-like production is an indicator of restructuring.

The issue of syntactic substitution is also observable in the sentences with third person singular subjects with coordinating, defining NPs, as illustrated in Figure 9.

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[37] The rest produced other deviant responses by including words (**Ananda and I **with** friends*) or other personal pronouns with their respective copula forms (**Ananda and I **he's** friends*). The latter example is indicative of the learners' strategy to facilitate the processing of the target structure by using (erroneous) resumptive pronouns, as previously suggested.

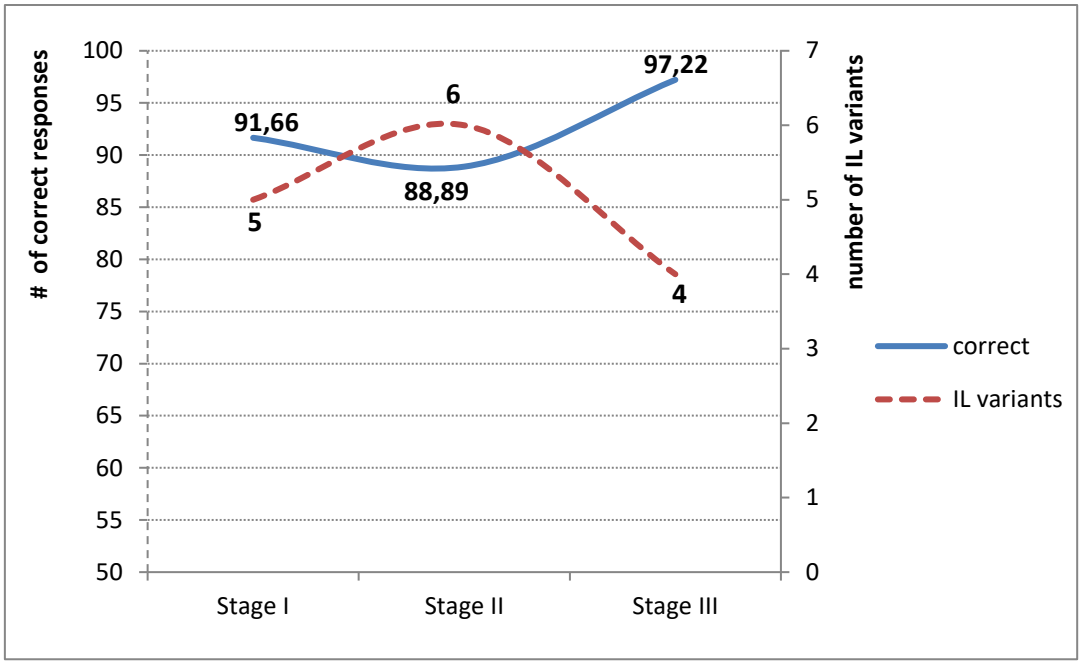

Figure 9: Learning curve for the third person singular with coordinating NPs as subjects and the development of the number of IL variants

As pointed out earlier, the students struggled with the respective copula forms, because the sentences lacked optimal subjects, i.e. personal pronouns, names or determiners. The learners faced difficulties with their uneconomical strategy to retrieve the required information from their stored chunks for sentences with multiword NPs. The subject slot in these sentences can be substituted by an infinite number of other phrases. As the learners' strategy failed to account for sentences of this type, the students had to rely on other cues. The decrease in the accuracy rate and the emergence of one more IL variant, i.e. the inclusion of random words (**My black baby dog **there** clever*), revealed the learners' attempt to find a new strategy. More input is necessary in order to provide learners with the phenomenon of syntactic substitution (to be discussed in 4.5 regarding didactic implications). The results in Stage III, all in all, show that the learners succeeded in restructuring their IL systems, as 97% of the responses were correct. Learners are able apply the correct copula forms to the respective subjects. To some extent, learners also appear to be aware that some constituents can be replaced without changing the meaning of the sentence.

As regards sentences with second person singular subjects, the degree of destabilisation was considerably higher than with the other subjects, as Figure 10 reveals.

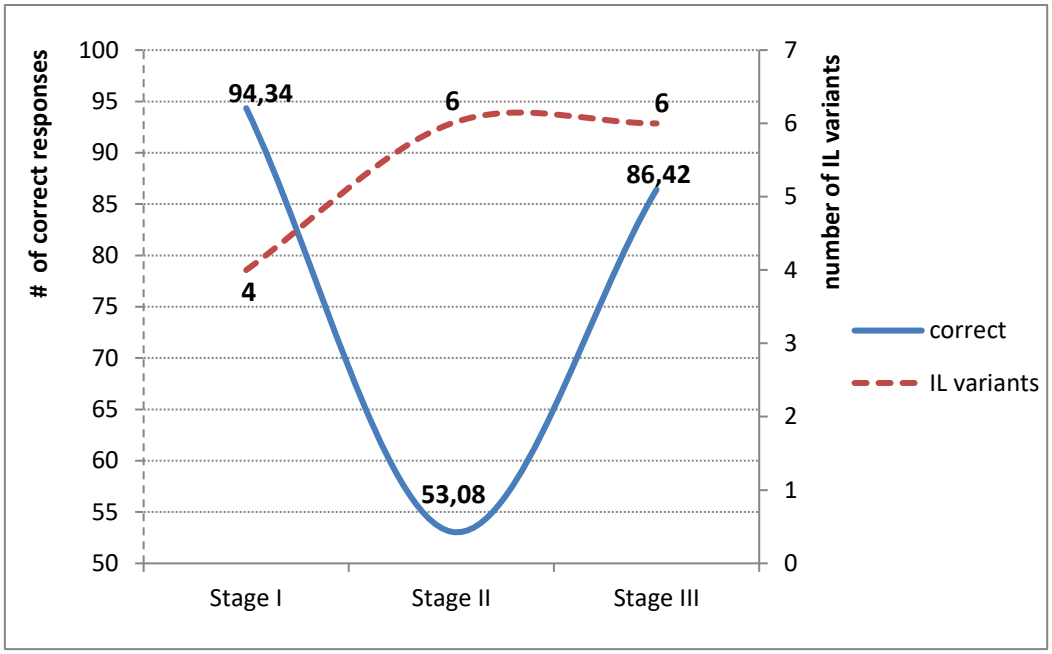

Figure 10: Learning curve for second person singular subjects and the development of the number of IL variants

In Stage I, 94,34% of the responses were correct, which was attributed to the formulaic nature of the structure in 4.3.2. Drawing on exemplar-based representations initially proved successful. However, the strategy failed when the students were asked to apply *are* to sentences other than questions, as reflected by the severe decline in Stage II. In this stage, only 53,08% of the responses featured target-like copula forms. In Stage III, an immense increase of correct copula forms was observable, reflecting the restructuring process. The missing decline in the number of IL variants in Stage III indicated that the learners were still in the process of restructuring.

4.4.3 Summary

The results of this section show that restructuring and U-shaped learning are inherent properties of learning a foreign language. The general decrease in the number of correct forms is the result of the shift in the level of representation. A transition from exemplar-based reproduction to rule-based production is accompanied by a decrease in accuracy as soon as the copula forms are taught explicitly. Learners struggle especially with complex NPs in subject positions, since their strategy to draw on formulas fails to lead them to the appropriate copula form. They increasingly begin to rely on rules rather than on formulas. The decrease of errors attributed to erroneous contractions and the increase of uncontracted forms

both emphasise this shift. As McLaughlin (1990) claims, “formulas are gradually unpacked and used as the basis for more productive speech” (123). At the same time, the results show that learners need more support in the classroom in terms of syntactic substitution. They require additional help understanding that a subject can be replaced by other constituents, such as coordinating or modifying NPs, without requiring a different copula form.

4.5 BE in Textbooks

The previous analysis of the IL variants in L2 development provides beneficial indicators for evaluating the textbook (*Cornelsen G21 D1*, 2006). Special emphasis is on the input and the tasks and exercises that address copula forms. The data highlight three major error sources in initial learning, which are (a) erroneous subject substitution, (b) perspective shift in dialogue tasks, and (c) errors in orthography. Section 2.2 formulated input and task requirements. The *Welcome* unit and Unit 1 in Cornelsen G21 D1 (2006) introduce the forms of BE by means of authentic situations. The characters introduce themselves and the students are asked to do likewise. By doing so, learners are motivated to use the phrases in a formulaic way by copying sentences and replacing the names of the characters with information about themselves. In early L2 learning, drawing on formulas is relatively common (cf. McLaughlin 1990:123). Learners start with their first brief communication in the TL. From a cognitive perspective, tasks of this type are more challenging than it seems at first. The learners have to process the sentences for meaning and then alter the sentences by adding their personal information:

(16a) `I am from [Bristol].`

(16b) `My mum and dad are from [Australia].`

(16c) `My name is [Polly].`

(16d) `I am [twelve] years old.`

The forms of BE in initial lessons are not taught explicitly, which can account for the problems with multiword NPs and plural subjects, as documented in the previous sections. Since learners have not encountered the subjects previously, they tend to struggle with words they have not stored. The explicit teaching of the copula form is scheduled for the following unit. Four of the characters introduce themselves and ask each other questions. The textbook employs visual and auditory

support, such as clarification requests with a specific prosody to encourage the process of noticing the structures. The following examples illustrate exemplar sentences[38]:

(17a) **You're** nervous

(17b) ***He's*** the mad twin.

(17c) ***I'm*** Jo. And ***she's*** Ananda.

Underneath the text, a grammar box (*Looking at language*) presents the forms of BE visually. The textbook uses bold and coloured print for emphasising the personal pronouns, while the respective copula forms are missing. The learners have to complete the gaps by drawing on their implicit knowledge, which is typical of inductive teaching. Thus, with regard to input requirements, the textbook employs adequate methods for making the structure more accessible to learners. Teaching the copula forms requires the unpacking of formulas, which accounts for the decrease of responses with erroneous contractions in Stage II. Learners increasingly analyse *I'm* as *I am*, *he's* as *he is*, etc. After explicit teaching, the learners recognise the apostrophe as an indicator of contraction. Errors due to contracted responses are not the result of the inappropriate introduction of BE by the textbook; they rather are indicative of chunk learning and show that formulaic reproduction is an omnipresent process in initial stages of learning.

However, the results of the questionnaires highlight significant difficulties with particular subjects in all the three stages. The third person singular subjects with coordinating NPs and all the plural subjects especially caused errors. With regard to input frequency, it is tempting to hypothesise that the forms requiring less effort occur more frequently in the textbook. Therefore, a distributional analysis of the previously encountered structures is insightful. The following table summarises all the sentences with BE that occurred in the two units in focus and their respective subjects and copula forms.

[38] Examples taken from Cornelsen G21, D1 (2006:20), emphasis mine.

SUBJECT		EXAMPLE	n
1st Sg.		*I'm from* (2), *I'm … years old* (3), *I'm* [name] (5), *I'm* [adjective] (6), *I am* (1)	**18**
2nd Sg.		*How old are you?* (2), *Where are you from?* (1), *Who are you?* (2), *Are you …?* (1), *You're …!* (3)	**9**
3rd Sg.	**Name/ Pronoun**	*She's* [adjective] (2), *She's from …* (2), *She's … years old* (2), *Jack is … years old* (1), *He's from …* (1), *Bristol is …* (1), *Prunella is …* (2), *It's …* (13), *Mr Hanson is …* (1), *Mrs Hanson is …* (1), *He's …* (4), *Is it …?* (1), *Football is …* (1), *Mr Barker isn't …* (1)	**33**
	DET	*This is* [name] (7), *That's* [name/*me*] (4), *that's right* (2)	**13**
	multiword NP/INT	*My favourite … is* (2), *My name is …* (3), *17 Cotham Park Road is …* (1), *The house is …* (2), *Today is the last day of …* (1), *Is my new school uniform …?* (1), *Day one is …* (1), *Your B&B is …* (1), *What's …* (2), *My mum is …* (1), *My dad is …* (1), *Our mum isn't …* (1), *Here's the teacher* (1), *Our name isn't …* (1), *Is the food okay?* (1)	**20**
1st Pl.		*We're …* (2), *We aren't* (1)	**3**
2nd Pl.		*You're …* (4)	**4**
3rd Pl.		*Here are Dan and Jo* (1), *they're …* (4), *My mum and dad are ..* (1), *Are your mum and dad …* (2), *Our mum and dad aren't …* (1), *they aren't …* (1), *Jokes about names are bad* (1), *Your ideas are …* (1)	**12**

Table 20: Sentences with BE in the Welcome unit and Unit 1 in Cornelsen G21, D1 (2006)

Most of the input is ordered around the first and the third person singular, the latter one being represented mostly by nouns and pronouns as subjects. Plural subjects are less frequent in the input. On the one hand, sentences with first and second person plural pronouns should not cause too many difficulties, as the number of potential substitutes is restricted. On the other hand, *we* needs more frequent representation, as it can also be paraphrased using the coordinating construction 'X and I'. As the gathered data in 4.4 revealed, enumerations of this type are problematic subjects, since learners tend to process only the word preceding the gap (*I*) instead of analysing the whole NP (*X and I)*. Since the learners had never encountered instances of *X and I* previously, they were not able to respond in the targeted manner. The most frequent answer was **X and I am*. This shows that more input with examples of coordinating phrases must be included in textbooks.

Frequency alone fails to account for the results in the empirical part of this study. Sentences with multiword NPs occur relatively often. Still, they seemed to be more difficult for learners. This was attributed to a lack of routine in constituent substitution. Although learners do the same in their NL, they struggle with sentences that feature multiword NPs that permit subject substitution by the personal pronouns *he*, *she*, *it* or *they*. It is impossible for textbooks to include manifold instances of complex subjects, given the infinite number of potential phrases that could fill the subject slot. However, textbooks should take into account the uneconomical strategy of early learners to store as much of the previous input as possible and include activities that practise substituting multiword NPs with personal pronouns.

In Cornelsen G21 D1 (2006), learners receive target sentences that they have to complete by using the respective copula forms. The results of this study show that this is redundant to some extent, since learners do incorporate the copula forms. They rather need more support in detecting the subject in order to move away from the deficient strategy of looking at the word preceding the gap. In the classroom context, teaching material should focus on activities that clearly highlight constituent substitution with special emphasis on the subject rather than on the copula form. Tasks ideally should show that a phrase can be replaced by another without making the sentence grammatically incorrect. Figure 11 serves as an example of such an activity.

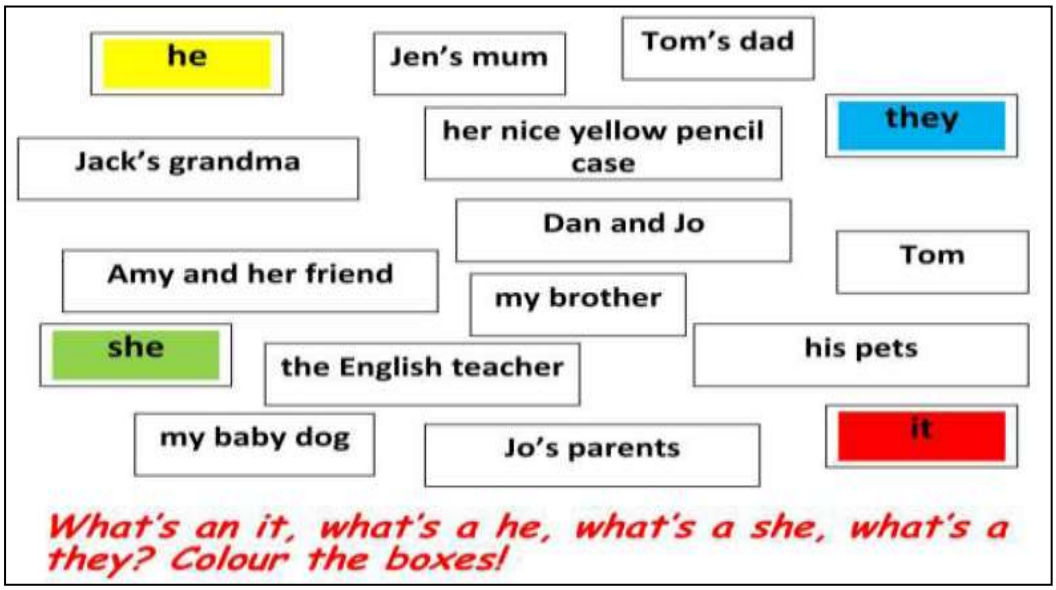

Figure 11: Example of an activity on constituent substitution

As stated before, early foreign language learning is comprised of storing formulas (cf. McLaughlin 1990; N. Ellis 2002, 2003, 2005; R. Ellis 2009). For sentences with personal pronouns as subjects, this might be supportive because of the limited number of potential subjects. However, as soon as students encounter other sentences with heavy NPs as subjects, they struggle with the respective copula form. As a consequence, they opt for a strategy to solve this problem, preferably by adding a personal pronoun or by drawing on the word preceding the gap. The *Workbook* (Cornelsen G21 D1, 2007a) offers such an activity in which the learners have to match and colour personal pronouns with potential substitutes. In the light of the high error rates due to constituent substitution, however, the overall number of exercises is considerably low. In addition to that, the exercises are too analytical and neglect the concept of task-based language learning. Textbook compilers need to find more effective solutions for this issue. A possible approach might be to ask the students to underline the subjects for a specific period. By creating their own enhancement methods, learners notice the error of their strategy to look for the word preceding the gap and gain syntactic awareness. Visualising the subject might support the learners in processing suboptimal coordinating NPs more easily.

Cornelsen G21 D1 (2006) includes complex, holistic tasks encouraging the learners to participate in authentic speech situations. Dialogues with partner and group activities about a specific topic offer communicative settings in which the learners can practise their language skills. The tasks include presenting oneself or a partner, miming (*Are you a …? – No, I'm not*/*Yes, I am*), and re-writing dialogues on the basis of texts in the book. All these task types are complex in the sense that they require the activation of more than one cognitive domain from the learners. In order to perform the tasks, the students have to process the input for meaning, to modify the information by applying it to themselves and to make use of the respective copula forms. In addition to that, they need to participate in spoken discourse by communicating with others. According to the classification suggested by Van Avermaet and Gysen (2006:35-36), the tasks can be positioned between the descriptive and the restructuring level, requiring a low level of processing. As regards the state of the learners' IL system, however, these tasks are rather demanding, as they require much more cognitive effort from the learners. The results of this study show that dialogic situations in particular cause difficulties. Students seem to find it hard to respond to questions, such as *Are you Dan and Jo?*,

since they lack the competence to perform the necessary subject shift in the response (*Yes, **we** are Dan and Jo)*. They rather use the same subject (*Yes, **you** are Dan and Jo*), which is not incorrect but a rather an unlikely answer. Even in dialogue tasks in the textbook, learners seem to struggle with the respective shift; they rely on the subjects in the target sentences, which, in turn, results in more errors. The perspective-/subject shift is a competence that exceeds their language skills in early learning stages. This finding implies that the tasks are on a relatively high level of processing.

The analysis of the textbook shows that the forms of BE are introduced adequately. Cornelsen G21 D1 (2006) employs methods which support noticing by shifting the learners' attention towards a linguistic feature. Above all, visual input (colouring, highlighting, bold print) and auditory support (prosody, choral speech, pitch) are utilised, which corresponds to the implicit-inductive teaching mode with focus on form *and* meaning alike (cf. Oxford and Lee 2007; Thaler 2012).

4.6 Summary

Chapter 4 has discussed how learners in initial stages of foreign language acquisition incorporate the copula forms. The learners' first sentences comprise chunks extracted from the previously perceived input. The low number of errors for formulaic subjects, such as personal pronouns and questions with *you*, provides evidence for this hypothesis. The relationship between contractions and full forms is unbalanced. As a consequence, learners fail to analyse contracted forms as two units. They rather consider contractions as a whole chunk. The high accuracy rate in Stage I implies that drawing on formulas results in fewer errors; however, replacing the formulas by rules causes errors in Stage II after explicitly teaching the copula forms. Learners attempt to incorporate the forms of BE and ascribe them to their respective subjects. Simultaneously, the awareness in terms of TL orthography evolves. The students begin to realise that the phoneme-grapheme relationship in German does not match the one in English. Above all, syntactic processes, such as subject substitution, seem to be considerably difficult for learners. The low number of tasks, both analytical and holistic ones, in the textbook for exercising this syntactic operation offers room for potential improvement. In order to raise the awareness for subject substitution, textbooks should put more emphasis on supporting the learners in mastering this process. Learners need to detect that third

person singular and plural pronouns can be replaced by more complex, coordinating phrases without causing a change to the copula form. For this purpose, more substitution tasks in textbooks are desirable.

5 Negation

Negative statements, as taught by the textbook, comprise two different types, that is, (a) negations without *do*-support, which require only the addition of the negative marker *not* (BE + *not*, *haven't got/hasn't got* and *can't*), and (b) negations with *do*-support, which are taught later. As in the previous chapter, a closer look at L1 acquisition can provide insightful information for the further analysis of the data and uncover similarities between L1 and L2 acquisition. Similarities indicate that some errors cause difficulties to native speakers and foreign language learners alike.

5.1 L1 Acquisition of Negation

One detailed account for the acquisition of English negation is suggested by Capdevilla i Batet and Llinàs i Grau (1995), who refer to the Maturation Hypothesis (cf. Felix 1984; Radford 1990; Tsimpli 1996). The authors, drawing on Tsimpli (1996), claim that there are two major stages in the acquisition process, that is, a prefunctional stage, which the authors locate at the age of 19 to 26 months, and a functional stage from 26 months onwards (cf. Capdevilla i Batet and Llinàs i Grau 1995:27). Stage I is characterised by a general mobility of the negative element. It is used as an adjunction that can occur left or right of the phrase at a peripheral position in most cases.[39] Similarly, Diessel (2013:352) suggests that multiword constructions, such as negations that require *do*-support, are often organised around a particular word. He refers to the concept of 'pivot constructions' (cf. Brown 1976:10), claiming that negations are also constructions that are organised around a pivot word. They are "a relational term (e.g. a verb) and an 'open slot' that can be filled by various expressions as long as these expressions are semantically appropriate in a particular position" (Diessel 2013:352). At this stage, learner language features utterances, such as **Go not* or **No go daddy*. Negative markers are close to the phrase they are referring to. The negator is relatively independent, since it appears on its own without causing any necessary syntactic or morphological operation, e.g. *do*-support or contraction. Capdevilla i Batet and Llinàs i Grau state that exceptions to this are severely restricted to specific contexts, e.g. negative imperatives with *don't* or the negative modal *can't*. The authors suggest that these cases are highly formulaic, as the positive counterparts of

[39] As negative markers do not only appear in VPs (*not go*), but also in NPs (*not a teacher*); the authors label the phrase to which the negative marker is adjoined as 'XP'.

imperatives (*Go!)* and the modal *can* do not occur in this stage (1995:39). Additionally, it has been claimed that learners seem to use the negative markers *not* and *no* in free variation in initial stages of learning (cf. Capdevilla i Batet and Llinàs i Grau 1995:39). The interchangeable use of both negators provides the interlocutor with the information of negativity.

Over time the negative marker shifts from a peripheral, adjoined position to an internal one. This change implies a transition from a lexical (*no*) to a functional category (*not*). Learners begin forming negations as fixed VPs (cf. Capdevilla i Batet and Llinàs i Grau 1995:40). Simultaneously, learner responses approximate adult responses as to the use of *do*-support and contracted forms. The number of sentences with *don't*, *can't* and *won't* increases, while a differentiation process between *no* and *not* is observable. The following table summarises the suggested developmental path of native speakers acquiring English negation.

	Stage I **prefunctional stage**	**Stage II** **functional stage**
	19-26 months	*> 26 months*
place of negative element	mobility of negative element: NEG + XP *No pinch me* XP + NEG *Wear mitten no* NEG + NP_{Subj} + XP *No Lois do it* NP_{Subj} + NEG + XP *Man no go in there*	fixed order of the negative element NP_{Subj}+ {Modal/*do*/*be*} + NEG + XP
status of negative element	independent category (lexical)	dependent category (functional)
do-support	no	yes
contraction	restricted to formulas: • *don't* (imperative) • *can't*	yes
negative markers	*no* (lexical) and *not* (functional) in free variation	differentiated use of *no* and *not*

Table 21: Summary of the development of L1 negation according to Capdevilla i Batet and Llinàs i Grau (1995)

Lightbown and Spada (2010) document similar results in their study, but they suggest that the integration of negation into the language system of children can be divided into four stages as reflected in the following table:

Stage 1	use of *no* as the negative marker in initial positions of sentences or sentence fragments.	*No.* *No cookie.* *No comb hair.*
Stage 2	longer utterances, inclusion of subjects, pre-verbal negative marker, rejection/prohibition expressed by *don't*	*Daddy no comb hair.* *Don't touch that.*
Stage 3	rising complexity of sentences, occurrence of *can't*, English pattern of negation (*don't* + V), no inflection of negator *don't*	*I can't do it.* *He don't want it.*
Stage 4	negator inflected correctly; some difficulties with issues related to negations (*any*)	*You didn't have supper.* *She doesn't want it.* *I don't have no more candies.*

Table 22: Development of L1 negation according to Lightbown and Spada (2010)

In the light of considerable overlap of the findings, research agrees with the claim that these steps constitute an order for acquiring negation. Additionally, Lightbown and Spada, drawing on Wode (1978, 1981), emphasise that similar studies on other languages exist (2010:4).

A vast amount of studies has focused on how foreign language learners acquire negation. Many of them can be dated to the time of the Contrastive Analysis Hypothesis (cf. Lado 1957) or to the period when UG theories emerged, as did the morpheme order studies from the 1970s (cf. Dulay and Burt 1973, 1974a; Bailey, Madden and Krashen 1974). Although the studies provide detailed depictions of the systematic order of sequences in learner language, some of them neglect essential aspects, since they do not concentrate on the acquisition of specific features, but on acquisition in general. Therefore, these theories lack an analysis of the diverse IL variants and neglect the extent to which they occur. In addition to describing which errors students produce and why they produce them, research must also account for instances of IL variation. As previously hypothesised, particular error types are restricted to specific stages of learning. In order to formulate statements about the processes involved in acquiring negations, it is essential to examine which errors occur in each stage and which ones disappear.

As described in the introduction of this chapter, negations are taught relatively early in German textbooks, that is, at the moment that learners encounter the forms of BE. In general, students learn that they have to add *not* or *n't* to the copula forms. In the remainder of this paper, these types of negative statements are referred to as simple negations in order to distinguish them from negations that require *do*-support, labelled as complex negations. Simple negations are practised by having the learner express something that is not true, as the following examples show:

(1) Are you from Sheffield?
- No, …

(2) Is he Jack?
- No, …

Simultaneously, students learn to respond with more authentic, short answers without repeating the whole phrase following the negator. This supports them in the development of communicative competence:

(3) No, I'm not [from Sheffield].

(4) No, he isn't [Jack].

The same unit introduces two other types of simple negations, i.e. the negative form of the modal *can* and the possessive *have/has got*, which both require only the negator *not*. The operations that learners can accomplish are limited, as they are restricted to expressing positive statements, asking questions and negating sentences with these three verbs.

In the second unit of the textbook, the students are confronted with the inflection of main verbs by means of the third person singular marker *–s* before they learn how to formulate negative statements with *do*-support. As previously assumed, the explicit teaching of a new type of negation probably causes errors and destabilisation. Two competing structures emerge and the students have to detect which verbs take *do*-support and which ones do not.

5.2 The Learning Stages

In the acquisition process, learners have to recognise whether verbs require *do*-support or not. In Stage I, the learners were already familiar with simple negations. They knew that BE, the modal *can* and *have got* require only the suffix *–n't* in order

to give a negative meaning to the sentence. This general IL rule helps learners to form negative statements in order to complete tasks in the textbooks and to express if something is incorrect. As the addition of a suffix should not be too difficult for learners, errors are most likely to occur in the area of erroneous copula forms, which would be a remnant of the previously taught structure (**He aren't good*, **You isn't good*).

The Stage II questionnaire was distributed immediately after the explicit teaching of negative statements with *do*-support. Conducting a study shortly after the introduction of a new structure contributes to the analysis of the learners' IL systems. With regard to U-shaped learning and DST/CCT, the second type of negation should probably cause destabilisation. The error types allegedly tend to be more diverse and previously correct structures are likely to occur at a lower frequency. Drawing on Larsen-Freeman (1996:151), chaos should be visible. Incorrect verb forms, overgeneralisations such as **he goesn't*, language transfer (**he goes not*), deviant inflection (**it don't goes*) as well as the loss of previously correct simple negations (**he doesn't can*, **he doesn't is*) can be expected as a result of chaotic IL systems. Ideally, Stage II is the point of maximal destabilisation with a high degree of IL variation, being followed by restructuring due to negative feedback to the learners' output.

Stage III should be reached after more exposure to the TL and more routine in the use of negative statements. They enhance the incorporation of the correct distribution of the respective negation type into the IL system and support reorganisation. The automatisation in using the correct negation type mirrors the transition from declarative to procedural knowledge (cf. DeKeyser 1998:49; 2008). If restructuring has occurred, the error rates and the number of IL variants are expected to decrease. Learners, at that point, should have acquired the competence to distinguish between the two negation types. The following table provides an overview over the three points in time for data elicitation[40].

[40] The third questionnaire, labelled as IIb, failed to account for any restructuring of the IL system. The error rates still remained on an extremely high level without any overt signal for reorganisation. Therefore, a fourth questionnaire was distributed after further 20 teaching units. The extensive practice helped the students to form negative statements appropriately. During this time, the learners were introduced to more structures requiring *do*-support, such as questions, while negative statements were not used explicitly but practiced on a regular basis.

Stage I	Stage II	Stage IIb	Stage III
December 16th, 2011	January 19th, 2012	February 29th, 2012	May 10th, 2012
	after 10 teaching units (90mins)	after 15 teaching units (90mins)	after 20 teaching units (90mins)

Table 23: List of the dates and number of teaching units before each questionnaire

The following section focuses on the responses in the Stage I questionnaire and shows which errors predominantly occurred in initial learning. It serves as a basis for detecting changes in the error rates and error types in the later sections. This, in turn, contributes to a discussion of what exactly students find difficult, why they do so and how tasks can be modified in order to improve foreign language teaching.

5.3 Negation: Stage I

The Stage I questionnaire was comprised of fifteen sentences and was designed with the following criteria:

- It consisted of questions that the students had to answer by using negative statements. The answers started with *No* and lacked subjects. The students had to find the appropriate subjects by drawing on the target questions.
- The same subjects as in Chapter 4 were included in order to detect whether the learners had fully acquired the forms of BE and their respective subjects.
- The target questions featured the copula forms, the modal *can* and the possessive verb *have got* for analysing whether there is a difference in the results for any of these verbs.

The following sentences exemplify the design of the Stage I questionnaire:

(5) Are you from Sheffield?
- No, _____.

(6) Can Tina fly?
- No, _____.

(7) Have they got a swimming pool?
- No, _____.

The students' responses in the Stage I questionnaire in general featured eleven error types, as Table 24 shows.

Types of Responses	n	%	*Example*	%
correct	248	**61,54%**	*I am not from …*	**79,4%** **n=320**
phonological similarity	3	**0,74%**	**He isen't from …* **They haven got …*	
erroneous contraction	5	**1,24%**	**You __arent__ in class…* **I cant speak …*	
wrong subject	45	**22,17%**	*Are you from Sheffield?* *- *No, you aren't.*	
positive statement	19	**4,71%**	*Are you from Sheffield?* *- *No, I'm from Walldorf.*	
double negation	1	**0,25%**	**I can't not speak*	**20,6%** **n=83**
constituent fragmentation	10	**2,48%**	**I'm not Ananda in the same class.*	
subject omission	11	**2,73%**	**No, aren't clever.*	
verb omission	25	**6,2%**	**No, not from India.*	
error in verb type	16	**3,97%**	**We haven't got in room 017.*	
error in form	20	**4,96%**	**I aren't Jack.*	

Table 24: Summary of the students' responses with their respective frequency of occurrence

As discussed in the previous chapter, some responses can be considered acceptable, although they are not target-like. Since sentences with erroneous spelling (**He isen't*), incorrect contractions (**I cant speak*), wrong subjects or even positive statements are well-formed in terms of grammar, they do not account for the acquisition of negation. Responses with wrong subjects (*Are you Jack? – No, *you aren't Jack*), for instance, occured at a considerably higher extent (20%), reflecting the difficulties in subject shift, as discussed in Chapter 4. With regard to grammar, they are correct, as the negative statement and the choice of the verb form are both correct; however, on the pragmatic side, they are not, as responses of this type in discourse are unlikely and would lead to a breakdown of communication. On a continuum from 'correct' to 'incorrect', IL variants of this type can be considered closer to the correct side. The same applies to positive statements (*Are you from Sheffield? – No, I am from Walldorf*), which reached nearly 5% of all the responses.

They are not incorrect, thus, labelling them as errors would be a mistake and would falsify the data. Moreover, some errors that had occurred in Chapter 4 proved relatively persistent, namely responses with erroneous contraction (1,24%) and phonological similarity, i.e. spelling mistakes (0,74%)[41]. Adding these IL variants to the target-like responses leads to a relatively high percentage of correct responses (79,4%).

The number of grammatically incorrect forms reached a total of 20,6%. As the IL variants derive from different error sources, they require an individual analysis. The most prominent error type (6,2% of all responses; 30% of the errors) was the result of copula or verb omission, as in **He not in the same class*. This can also be observed in studies on L1 acquisition (cf. Capdevilla i Batet and Llinàs i Grau 1995; Lightbown and Spada 2010). Instances of erroneously used copula forms, as in **he are*, which occurred in nearly 5% of all responses, were the result of the incomplete acquisition of the previous grammar topic. Responses with incorrect verbs, i.e. BE instead of *have got*, occured in 3,97% of the cases. Other IL variants comprised subject omission (**No, Ø aren't clever*) or errors in syntax (**No, I'm not Ananda in the same class*). Responses of the latter type are labelled as constituent fragmentation, since the subject in the target sentence (*Ananda and I*) is separated. Both error types occured at approximately the same frequency (2,73% and 2,48% respectively). Only one case of double negation was observable (**No, I can't not speak Japanese*). The following figure illustrates the distribution of the errors in Stage I:

[41] The continuous decline compared to the results in Chapter 4 is indicative of the learners' progress in orthographic awareness.

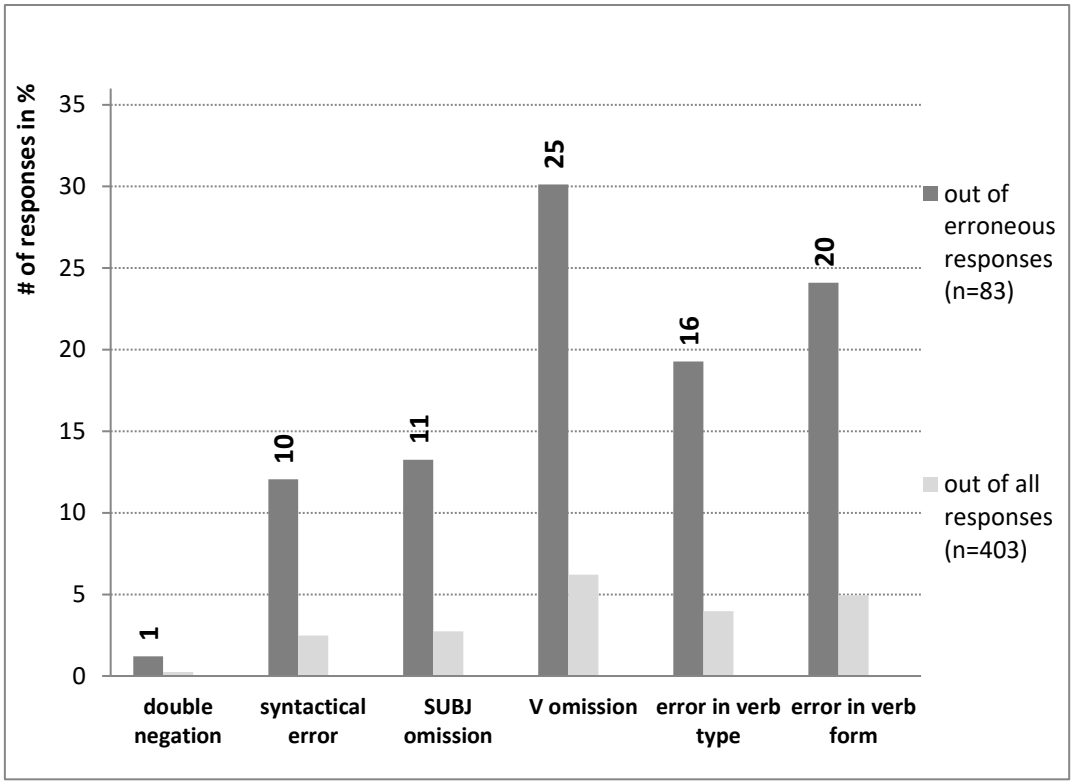

Figure 12: Distribution of the error types in relation to all responses (n=403) and to the erroneous responses (n=83)

In the error analysis of the results, deviant responses occurred equally with all subjects; the only exception were sentences with an incorrect subject, which preferably occurred with first and second person singular and plural subjects. This implies that errors are not bound to specific target subjects, as it was the case in the previous chapter where errors occurred more frequently with specific subjects. Thus, the parameters of 'person' and 'number' can be neglected in the remainder of this chapter.

5.3.1 Errors in Previously Acquired Structures – Phonological Similarity, Erroneous Contraction and Errors in Verb Forms

The three categories 'phonological similarity', 'erroneous contraction' and 'errors in verb forms' are the result of errors in another domain of the IL system. All three error types were visible in the previous chapter. Errors due to phonological similarity resulted in errors in orthography, which addresses another area of the IL system rather than IL negation itself. Responses with errors in spelling do not indicate that learners have acquired negation incorrectly; they show that students have difficulties with English orthography. The wrong representation of

orthographic rules causes the IL variant. The same applies to responses that featured cases of erroneous contractions, i.e. the misuse or absence of apostrophes (**He isn't*, **They are'nt*). The errors most likely are the result of formulas being stored in the learners' memory, but represented incorrectly, since the apostrophe is in the wrong position. Additionally, the learners seemed to fail in analysing *n't* as *not*. In oral communication, errors of this type are difficult to notice. Responses with erroneous spelling or contraction probably point at an incomplete transition from exemplar-based reproduction of formulaic sequences to rule-based representations. The pronunciation of a word affects how learners spell it. In a word like *I'm*, learners do not perceive the apostrophe in oral speech and they tend to respond with **Im*. As regards *I haven't got*, /t/ in rapid speech is frequently omitted and hardly audible, especially for foreign language learners. This explanation can account for responses such as **I haven got*. Since phonology determines the way learners spell words in initial stages, erroneous contractions and errors in orthography frequently occur in written samples of learners. The rate of these errors, however, was relatively low with 2% of all the total responses. In the light of the decreasing amount of errors, it is plausible to suggest that the incorporation of orthographic representations into the learners' IL systems was still in progress.

In contrast to the previous two IL variants, errors in verb forms as in **He aren't* or **They isn't* are certainly deviant. While phonological similarity and erroneous contractions are grammatical in oral communication, errors in verb forms are grammatically incorrect in spoken and in written English alike. The error rate was considerably low (4,96%). Compared to the results of the previous chapter on copula forms, errors were continuously decreasing. In Stage III in Chapter 4, 6% of the responses featured errors in copula forms. The results of the Stage I questionnaire in this chapter show that the IL systems of some learners were still in the process of restructuring. The results mirror the learners' attempt to incorporate the respective forms. Although the textbook concentrates on another area of grammar, resulting in less input and less tasks for practicing the structure, the learners' IL systems were still occupied with the previous structure. Making use of erroneous copula forms derives from another TL domain rather than from the target feature negation. This can be seen as support for the DST claim that all systems are interrelated and affect one another (cf. Larsen-Freeman 1997; De Bot, Lowie and Verspoor 2007a, 2007b). All in all, the results show that 6,95% of the responses

featured errors as a result of the incomplete acquisition of a different TL domain with a low frequency of incorrect grammatical structures.

5.3.2 Choice of Wrong Subjects

Errors due to the wrong subjects were highly frequent with simple negations (22,17%) compared to the other IL variants. Although these responses lead to grammatically correct sentences, they are incorrect in discourse. Deviant subjects reflect the general shortcoming of being able to draw on the correct subject in communication. When asked *Are you in class 7PK?*, the students lacked the ability to answer the sentence appropriately. They used the same subject as in the target question (*No, you aren't in class 7PK*), which is possible with third person singular subjects only. The obligatory subject shift was absent in their responses. Errors due to incorrect subjects are most likely to occur in dialogic tasks or role plays, which approximate authentic communicative situations. Since subject shift is strongly linked to the subjects in the target questions, as the following table shows, the responses must be distinguished with regard to person and number.

subject	N / TOTAL		%
1st Sg.	1	28	**3,57**
2nd Sg.	1	27	**3,7**
3rd Sg.	5	79	**6,33**
1st Pl.	15	80	**18,75**
2nd Pl.	15	26	**57,69**
3rd Pl.	6	55	**10,91**

Table 25: Erroneous responses with regard to person and number and their respective frequency of occurrence

The table shows that responses with deviant subjects predominantly occurred with plural subjects, preferably in the first and second person plural[42]. The following target sentences exemplify the contexts in which learners had to perform the subject shift:

[42] First and second person plural subjects are henceforth referred to as as $SUBJ_{1\text{-}PL}$ and $SUBJ_{2\text{-}PL}$ respectively.

(8a) Dan, Jo! Are you in the football team?
- No, **we** aren't.

(8b) Are you two Jack and Tom?
- No, **we** aren't.

(9a) Are Ananda and I in the same class?
- No, ***you*** aren't

(9b) Are we in room 017?[43]
- No, we/***you*** aren't.

The error type 'wrong subject' was absent from question (9b). There seems to be a twofold reason for the responses. On the one hand, the students showed a general preference for the same subject, which caused errors in sentences with singular subjects (*Are you from Berlin? – No, you aren't*; *Am I in class 7PK? – No, I'm not*). Normally, this strategy results in errors, but it did not in the case of (9b), as the choice of the same subject was applicable in this context. This also depends on one's own involvement in the question. On the other hand, the shape of the subject in the target question is noteworthy, as it is a light NP (personal pronoun). This distinguishes the sentence from the other questions with plural subjects. As stated in the previous chapter, personal pronouns and names trigger higher accuracy rates as they are less complex in terms of processing (cf. Rosenbach 2003; Berlage 2009). A sentence like *Are we in the same class?* involves less syntactic processes, thus less effort to answer the question than example (9a) with a more complex coordinating NP as a subject. (9a) requires at least three operations, that is, first, to use the correct word order, which makes the process of inversion more difficult because of the length of the constituent; second, the shift of the pronoun within the complex from *I* to *you* ([*Ananda and YOU*]); third, the addition of the correct negative marker *not* to the copula form. The more syntactic operations the learners need to take into account, the less accessible the structure is, especially in early stages of learning. A sentence like (9b) with an optimal NP seems to trigger fewer errors.

Apart from the complexity of the NP, the results clearly show that errors due to a wrong subject are, to some extent, communicative errors as well. Labelling these responses as 'communicative errors' is plausible, as they reveal a general

[43] This was the only sentence that permitted two different types of responses, i.e. either a $SUBJ_{1\text{-}PL}$ (*we aren't*) or a $SUBJ_{2\text{-}PL}$ (*you aren't*), depending on the perception and interpretation of the question. If the person who answers is involved in the group, the subject requires the first person singular. If the person is not involved, then the second person plural is correct. It is noteworthy that none of the students chose *you aren't* as a possible answer.

problem in early stages of foreign language learning. The students lacked the appropriate linguistic skills for communication. They failed to solve a task that required them to perform a subject shift. Answering questions in the first or second person singular and, above all, in the plural led to more errors, reaching the highest rate in the category $SUBJ_{2\text{-}PL}$ with 57,69%. The target group apparently struggled more with the design of the task in answering the target questions rather than with negation itself. Moreover, the learners seemed to refer to themselves and their realm of experience when answering the questions. At this stage, they struggled with switching the perspectives in a sentence. Analysing a question for its meaning while providing an acceptable answer by means of a subject shift seemed to be too difficult. The students used the subject of the target question instead. The interpretation of this finding depends on the researcher's individual viewpoint. The results either imply that learners at this stage need more dialogue tasks in order to practice the required perspective shift, or that tasks of this type are too difficult in early stages of foreign language learning. Regardless of the implication of the results, the responses show that perspective-/subject shift is an immense problem that teachers have to face and that learners, at some point, have to overcome.

5.3.3 Positive Statements

Responses, such as *No, I'm from Walldorf* as opposed to *No, I'm not from London*, occurred more frequently (4,71%). As was the case in the previous section, answering in positive statements is grammatically correct, thus acceptable in discourse. The sentences lack the use of the required negation as demanded by the task. Compared to the other response types, the overall percentage was relatively low. However, the use of positive statements is striking, since it reflects a possible way of responding to questions without making use of a negator, as the following examples show:

(10) Are you from London?
- No, I'm from Walldorf.

(11) Is Drama your favourite subject?
- No, my favourite subject is Maths and Art.

(12) Can you speak Japanese?
- No, I can speak German.

The three examples illustrate that in natural conversations, the learners are capable of expressing themselves correctly, both in a grammatical and pragmatic sense.

What is interesting is why responses of this type occurred in these contexts while being absent in others.

The use of an alternative construction instead of the targeted one can be regarded as an instance of avoidance or underrepresentation (cf. Levenston 1971:115). As regards negation, the structure includes adding a negative marker to the verb. Learners avoiding the structure must find an alternative way to express their idea in a grammatically correct sentence. Consequently, they respond with positive statements, which have the same function in discourse. Learners try to express that a particular statement does not apply to themselves. Positive statements in this context are even more adequate than negations, since they communicate that a particular topic is incorrect and additionally provide the correct information. In this sense, positive statements as an expression of avoidance, constitute a more elaborate answer, since they reflect a higher competence level in learners' communicative skills. A closer look at the target questions that triggered positive statements shows that the responses were restricted to specific contexts only (the numbers in brackets indicate the number of responses).

(13)	`Are you from Berlin?`	*(1)*
(14)	`Can you speak Japanese?`	*(2)*
(15)	`Can Tina fly?`	*(1)*
(16)	`Is Paul 16 years old?`	*(3)*
(17)	`Is your favourite subject Drama?`	*(5)*
(18)	`Is she Ms. Stein?`	*(2)*
(19)	`Have they got a swimming pool?`	*(1)*
(20)	`Are we in room 016?`	*(4)*

Except for (15) and (16), all the questions established a link to the learners' realm of experience. The questions referred to something that directly affects the learners, that is, their school life (teachers, favourite subjects, classroom) and their private life (language skills, home). This implies that avoidance in these cases was not random or the result of a lack of competence. Positive statements predominantly occurred when learners were able to transfer the topic of the target questions to themselves. Consequently, a reconsideration of positive statements is necessary. Learners apparently prefer more elaborate means than negation when they feel that the targeted structure fails to provide the interlocutor with a sufficient amount of information. It is an issue of debate whether this IL variant is an example of

avoidance, since the learners in this study did not use it for disguising a lack of competence.

5.3.4 Double Negation and Constituent Fragmentation

Two clearly erroneous IL variants comprise double negations, on the one hand, and instances of constituent fragmentation on the other, as in *[Ananda][aren't][and I][friends]. The two response types constituted only a minor part of the erroneous structures (one in 403 responses with double negation, ten featuring constituent fragmentation).

Double negation, as in **I can't not speak Japanese*, occurred at a rather low frequency (0,25%). It is plausible to attribute this error to formulaic sequences that the learners were still drawing on to some extent in this stage. The students did not analyse *can't* as the negated form of *can*. Instead, they added the negator *not* to the formula stored in their mental lexicon. This corresponds to findings in L1 research, which also ascribe a formulaic status to *can't* (cf. Capdevilla i Batet and Llinàs i Grau 1995:39). The example of **can't not* shows that the learners to some degree relied on previous, formulaic structures. Interestingly, instances of double negation have been documented in other varieties too, as in AAVE. Standard French also makes use of the parenthetic negation *ne ... pas*. However, it is not likely that this might have had an impact on the students' responses, since none of them had had contact to neither AAVE nor French.

Constituent fragmentation occurred more frequently than double negations, albeit being considerably rare (2,48%). However, they reveal the limited competence in processing coordinating phrases appropriately. Some learners analysed words individually, which made multiword phrases more sensitive to fragmentation. The following sentences exemplify the instances in which this IL variant occurred; the respective target questions are in brackets.

(21) *You aren't mum and dad from Uganda.
(*Are your mum and dad from Uganda?*)

(22) *I'm from not Berlin.
(*Are you from Berlin?*)

(23) *I'm not Ananda in the same class.
(*Are you and Ananda in the same class?*)

(24) *Not my favourite subject is Maths and Arts.
(*Is Drama your favourite subject?*)

The examples exhibit different errors in word order and the choice of subjects. Furthermore, the individual constituents were divided into individual words. This occurred in two ways. There was either the misplacement of the negator *not* in the sentence as in (22) ad (24), or the erroneous analysis of the subject in (21) and (23). In the first case, the negative marker was placed close to the topic of the sentence. The topic in (22), for instance, referred to the origin of the students, whereas in (24), the topic was their favourite subject.[44] The underlying pattern is to produce sentences with the negator preceding the topic, which results in the fragmentation of the constituents.

```
*I    'm    from  not   Berlin
*[I'm from]       {[not] [Berlin]}
```

This shows that the learners apparently drew on semantic cues in the sentence. They considered negating the topic as the most plausible way to respond. The target-like formation of negative statements had not been acquired, as the learners failed to analyse the negator as an inseparable unit of the VP.

The examples (21) and (23), in spite of their different subjects, both featured multiword NPs that were structurally complex. As discussed in Chapter 4, coordination is more difficult in terms of processing. As a result, the learners treated the constituent in the target question as consisting of two separate phrases:

```
*[You]      [aren't]    [mum and dad][from Uganda]
SUBJ        VERB_NEG          *?P          COMPL
```

The same applies to (23):

```
[I]   ['m not]    [Ananda]    [in the same class]
SUBJ  VERB_NEG    *?P         COMPL
```

In both sentences, the result of this erroneous operation was an indefinable constituent between the copula BE and its complement, labelled as [?P]. The learners failed to analyse the subject of the target questions as one single constituent ([Ananda and I], [your mum and dad]). Interestingly, in the first example, the learners interpreted the second part of the constituent as the subject rather than the first word. This supports the suggestion that learners draw on the word preceding

[44] In this sentence, the students also expressed what their favourite subject was in addition to negating the sentence. This makes the responses pragmatically incorrect as well.

the copula form when attempting to detect the subject. As in (21), the possessive pronoun *your* was misinterpreted as the personal pronoun *you* and used to answer the question.[45] This provides further support for the hypothesis that learners find complex, coordinating constructions particularly difficult. They erroneously separate multiword NPs, which in turn results in an isolated, indefinable constituent between the VP and its complement. The further development of this error type needs special treatment, as it actually reflects an error linked to IL syntax. From a DST/CCT perspective, those responses reflect that all the domains in the IL system are connected (cf. DeBot, Lowie and Verspoor 2007a:8). Learners seem to struggle with syntactic rules that define the correct structure of a sentence with inseparable constituents. Thus, errors due to constituent fragmentation cannot be attributed to IL negation. They could occur in every instance of speech production that requires a change in the constituent order, such as question formation. However, this is not within the scope of this dissertation. The responses demonstrate the complexity of the acquisition process and can be regarded as support for DST/CCT claims.

5.3.5 Missing Constituents – Verb and Subject Omission

Nearly 9% of all the responses featured errors due to missing constituents, which made the sentences ungrammatical. The responses lacked either a verb or a subject. The following sentences exemplify instances of subject and verb omission with the target questions in brackets.

Subject omission (2,73%, n=11)

(25) `No, Ø aren't clever.` (*Are the students mad?*)

(26) `No, Ø aren't from Berlin.` (*Are you from Berlin?*)

Verb omission (6,2%, n=25)

(27) `No, they Ø not from India.` (*Are your mum and dad from India?*)

(28) `No, I Ø not (got) 1.000€.` (*Have you got 1.000€?*)

(29) `No, you Ø not Ø Japanese.` (*Can you speak Japanese?*)

Especially the instances of verb omission are of particular interest as previous research on L1 acquisition of negation also documents responses with instances of copula omission (cf. Kuczaj 1986; Capdevilla i Batet and Llinàs i Grau 1995; Becker 2004). From a typological perspective, the verb is the most important

[45] The choice of the subject is incorrect too. The IL variant previously referred to as 'wrong subject' is visible. The learners lacked the communicative skills to change the subject to *I* as they assumed *you* to be the subject

grammatical unit of the sentence, as the most basic sentence must contain at least a verb. In contrast to subjects, which can be omitted (e.g. imperatives), verbs are an obligatory part of the sentence. Verb omission is more likely to occur with BE, whereas it is rare with *can* (one in 55 responses) and *have got* (three out of 53 responses). The learners apparently did not consider the copula as a necessary constituent of a sentence, as they felt that the overall meaning of the utterance was conveyed.

(30) *Are they from India?* `*They Ø not from India.`

(31) *Is she Ms Stein?* `*She  Ø not Ms Stein.`

The responses still contained the information that something was wrong, although the copula was missing. The examples show that the negator functions as the essential element in the sentence, in contrast to the copula which the learners considered not meaningful. As documented by studies in L1 acquisition, copula omission and the use of *not* exclusively show that meaning overrides form (cf. Kuczaj 1986; Becker 2004). Responses lacking copula forms are an important step in the acquisition process and need a closer examination in the further development.

Subject omission, by contrast, is an issue of interest, since not many studies in L2 have acquisition have documented instances of this type.[46] The verb's dependence on the subject of the sentence complicates the analysis of these responses. One explanation addresses the subjects in the target sentences, which mostly required a subject shift in the answer (*Are **you**? – No, **I**'m not; Are **we**? – No, **you** aren't*). The change is a complex syntactic operation that some of the learners had not yet mastered. Moreover, the first word in a polar question is the copula form. It is tempting to hypothesise that the learners, while responding to the target question, used the respective form of BE and omitted the subject. As instances of subject omission were relatively rare (2,73%), further empirical research is necessary, probably in the form of isolated samples from those learners who produced responses without subjects, also considering the L1 of the learners.

[46] There are languages, such as Spanish, Italian, Greek or Persian, that permit subjectless sentences (e.g. *No soy de Berlin*). Subject omission might have been relevant for those speakers who were native speakers of the aforementioned languages. It has to be noted that some learners were native speakers of Spanish and Italian. However, it is questionable whether there were transfer effects from another language, since all probands were fluent speakers of German. Since the questionnaire had to be anonymised, it is hard to trace the responses back to those learners and to attribute the responses to crosslinguistic influence.

A look at the further acquisition process of negation shows whether subject omission persists or whether it is a temporary state of the IL system.

5.3.6 Error in Negation Type

Erroneous negation types comprised responses with verbs which lacked the target verb. The learners, for instance, used *can* instead of *have got*, as the examples (32) to (34) show.

(32) Can you speak Japanese?
-*No, I***'m** not speak Japanese,

(33) Have you got a swimming pool?
-*No, they ***aren't***

(34) Are you in the same class?
-*No, we ***haven't got*** in the same class.

Only a small number of responses featured the choice of an erroneous negation type. In 3,97% of the cases (n=17), the learners used a different verb than required. Interestingly, the erroneous choice of the negation type applies to all the target verbs rather than being restricted to only one verb type in particular. However, the students showed a tendency to overuse BE and to use it in sentences that required a different verb, especially when *have got* was the target verb (e.g. **I'm not got* and **They aren't a swimming pool)*. One possible explanation refers to the nature of *have got*, which is less frequently represented in textbooks compared to sentences with BE or *can*. The learners seemed to struggle with incorporating *have got* appropriately into their IL systems. Input frequency has already been stated by a vast amount of studies as essential supportive factor for acquisition (cf. N. Ellis 2002, 2005; Ellis and Ferreira-Junior 2009; Ellis and Larsen-Freeman 2009). Moreover, the number of textbook tasks that required the use of *have got* was considerably low. The low representation inhibits the automatisation of the target structure. This is an issue of discussion in 5.5. The learners overused the negation type that occurred most frequently in the textbook, which resulted in errors.

5.3.7 Discussion of Results in Stage I

The analysis of the data in Stage I showed that errors in negation due to verb inflection were rather rare, as a total of 4,96% of all responses featured erroneous verb forms. Still, there is evidence that restructuring had not been accomplished

after weeks of constant input from the textbook. The responses reveal the involvement of previously acquired systems, i.e. copula use, IL syntax and orthography. In the previous sections, errors in copula forms were regarded as an indicator for the transition from formulaic, exemplar-based reproduction to rule-based representation. The accuracy rates in Chapter 4 for some target sentences in Stage III were lower after the explicit teaching of the rule than in Stage I, when learners relied on formulas stored in their IL systems. The acquisition of BE was still in progress while the students learned how to form negative statements. This provides further evidence for the hypothesis that IL systems constantly change while learners experience new structures. The decreasing number of erroneous copula forms and contraction shows that fewer learners struggled with the forms of BE in the new data set on negative statements. In the Stage III questionnaire on BE, nearly 7% of the responses were wrong due to erroneous copula use or errors in contractions, while the total percentage continued to decrease in this chapter.

Except for previously acquired areas of grammar that were, to some extent, still in the process of reorganisation, the other responses indicated an increase in competence. Above all, positive statements were characteristic of the initial stage of L2 negation. The learners seemed to develop some discourse competence that is important for communication. Responding to questions by means of simply saying that something is wrong (*No, I'm not from Berlin*) appeared to be insufficient to the learners. The students used positive statements instead to provide the interlocutor with the appropriate information. Since the learners who used positive statements proved perfectly able to form target-like negations in other sentences, it is questionable whether this is an issue of avoidance.[47] Moreover, the results imply that the students preferred positive statements over the targeted structure whenever they felt that the target question applied to themselves and their own realm of experience. This reflects the increase in the learners' communicative skills as well. The need to express a meaningful sentence was more important to the learners than to produce the targeted form. From a didactic point of view, considering instances of positive statements as an error is an issue of debate, since the ultimate goal of foreign language learning is to develop communicative competence (cf. Lehrplan Hessen Englisch Gymnasium 2011:2). As long as communication is still possible, teachers should not have any objections. The learners were competent in forming

[47] Only one student made use of positive statements exclusively, which might be considered as an instance of avoidance.

target-like negations, as the responses are grammatically correct and approximate natural, authentic communication.

Errors leading to a breakdown in communication cannot be related to the target structure 'negation', but to other areas of the IL systems, such as using the wrong subject in responses (*Are you mad? –No, you aren't*). These errors are grammatically correct in terms of subject-verb-agreement, placement of the negator or spelling. However, in the case of wrong subject choice, they reveal a lack of competence in performing the required subject shift in communication. This shortcoming leads to difficulties in dialogic tasks in particular. The change of the subject implies a change of perspective from first to second person pronouns and vice versa. The relative percentage of occurrence (22,17%, n=44) shows that errors of this type were a severe problem in L2 acquisition. The use of incorrect subject pronouns might be indicative of insufficient practice and automatisation. At the same time, the high error rate also reflects that tasks of this type might be too difficult for learners at that stage of learning and that errors of this type are, to some extent, natural. Learners seem to be unaware of syntactic rules and cannot decide on the correct subject in discourse, since their skills have not yet fully developed. They apparently struggle with replacing the respective subject of the target question (*you*) by the appropriate one (*I* or *we*). They tend to extract the same subject of the question without understanding that, in real communication, they have to perform the appropriate subject shift.[48] If errors of this type really are the result of a lack of syntactic competence, learners should be provided with more activities that support them in substituting constituents in sentences.[49]

In spite of the missing syntactic TL rules, a development of syntactic awareness was observable. The learners produced responses with instances of constituent fragmentation with separated, stranded phrases, as in **I'm not Ananda in the same class* or in **I'm from not Berlin*. Errors of this type reflect that learners, in initial stages, preferably draw on meaning rather than on form. The second example in particular (**I'm from not Berlin*) supports this claim, as the learners

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48 It might be worth considering the elicitation of oral speech data in future research in order to analyse whether students commit errors due to subject shift only in written dialogues. It is tempting to hypothesise that oral data will yield different results due to the strong focus on communication in the EFL classroom. This is an issue of further research and is outside the scope of this dissertation.

49 It is noteworthy that subject shift in dialogue tasks is a feature that is not only restricted to the TL. Neither positive nor negative transfer is visible since the learners do not draw on their NL.

apparently placed the negator relatively close to the topic to be negated in order to convey the negative meaning of the sentence. The learners in this case attempted to express that the location 'Berlin' was incorrect. Moreover, constituent fragmentation can be seen as support for the hypothesis that multiword NPs are more difficult in terms of processing. The inclusion of a negator seems to lead to a destruction of the phrase and the occurrence of unidentifiable constituents, as in [I]$_{SUBJ}$ [am not]$_{VP}$ [Ananda]$_{XP?}$ [in the same class]$_{COMPL}$. The XP is part of the subject in the target question (*Are you and Ananda in the same class?)*, but the learners did not perceive it as such. They separated it from its constituent and constructed two easier, single word NPs. However, the overall low rate of this response (2,48%) shows that only a limited number of learners struggled with coordination and that syntactic awareness gradually evolved.

5.4 Development of IL Negation

Negative statements with *do*-support are usually introduced in the classroom after simple negations. The introduction of complex negations leads to destabilisation, since learners encounter two different but seemingly competing means of negation. After more exposure to the TL, learners can detect the target-like distribution of negative statements with and without *do*-support.[50] A general confusion of the two negation types is highly probable, as restructuring and CCT/DST theories hold (cf. McLaughlin 1990; Larsen-Freeman 1997, 1998, 2011; DeBot, Lowie and Verspoor 2007a, 2007b). The following figure illustrates the development of simple and complex negations[51]:

[50] One methodological problem is the absence of negative statements with do-support from the Stage I questionnaire. The results cannot show U-shaped learning, since Stage II was the first stage representing this feature. The results of this study only give insight into restructuring processes with regard to simple negations. For the sake of a complete analysis, negative statements requiring *do*-support are examined as well.

[51] As stated before, one additional questionnaire had to be distributed between Stage II and Stage III, since the original Stage III set failed to reflect any restructuring. The third data set is labelled as Stage IIb and the fourth as Stage III.

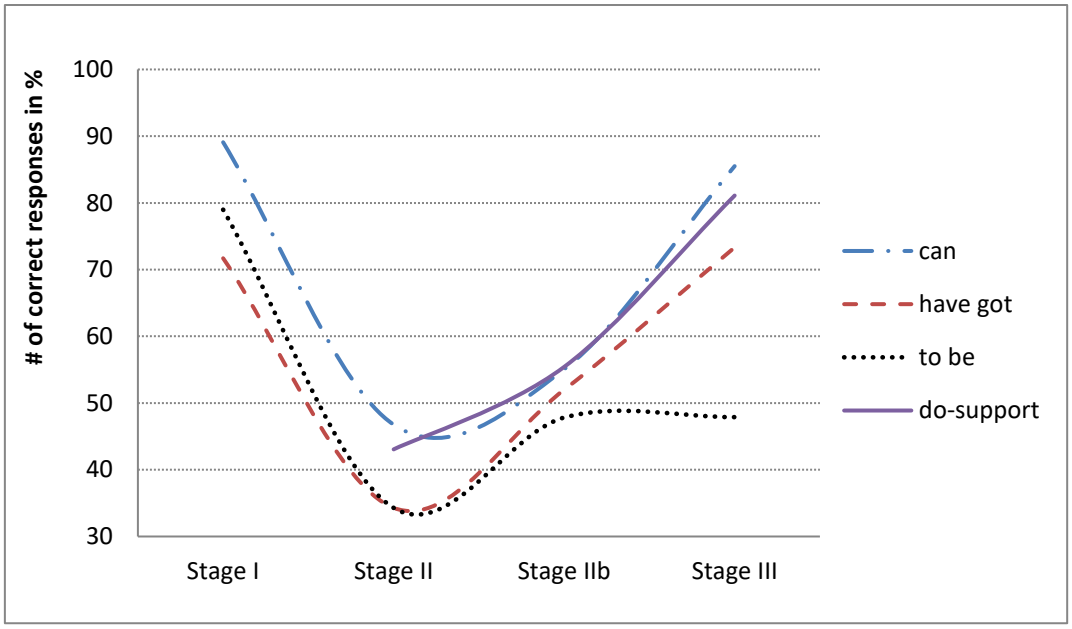

Figure 13: Development of the accuracy rates for simple and complex negations

The results show that IL negation is a considerably difficult feature for learners. This is supported by the relatively low accuracy rates in Stage IIb. Restructuring at that stage had not yet occurred. Before complex negations were introduced, the learners in Stage I achieved relatively high scores when forming simple negations. The modal *can* in Stage I triggered an accuracy rate of 89,09% of all responses, BE 78,98% and *have got* 71,7%. The results clearly show that the introduction of a new negation type caused destabilisation. The learners' IL systems required reorganisation in Stage II. The relative percentages of correct responses tremendously decreased. Interestingly, the learners seemed to struggle most with BE, followed by *have got*. The number of correct responses with *can*, which had exhibited the highest accuracy rate in Stage I, featured the smallest decline. This might indicate that the learners did not analyse *can't* as two separate words (the modal *can* and the clitic *(n)'t*). This corresponds to the findings in L1 research which hold that the negative *can't* is apparently stored as a whole chunk (cf. Capdevilla i Batet and Llinàs i Grau 19985:28-29). Due to its formulaic status, the introduction of a new negation type did not affect the responses with *can't* as severely as it did with the other verbs. The inflectional paradigms of *have got* and BE might account for the difficulty in acquisition and the immense decrease of the accuracy rates in Stage II. While the possessive *have got* features two forms (i.e. *have got* and *has got*) and BE is suppletive, the modal *can* is the only existing form. Thus, the different accuracy rates might be indicative of the inflectional markedness

hierarchies of the three target verbs (cf. Eckman 1977). BE, as the most marked verb, requires more effort from learners than the less marked possessive *have got*; the least marked *can* is only marginally affected and triggers less errors than the other two target verbs.

The second observation in Figure 13 is the relatively low degree of reorganisation of the IL system in Stage IIb. This stage was expected to be the post-restructuring final stage. Target-like performance remained at an extremely low level, especially in the light of the initially high percentage of correct responses in Stage I. The following sections examine the responses and the IL variants with negative statements in simple negations , the development of errors and the responses with *do*-support.

5.4.1 Errors in Simple Negations

This section presents the development of IL negation without *do*-support. Restructuring theories hold that learners are likely to undergo a process of destabilisation and reorganisation of the IL system they detect the correct distribution of the two competing structures (cf. McLaughlin 1990:121). The high error rates in Stage IIa and IIb support this position. In this stage, learners need more input and tasks in order to form hypotheses about the target-like distribution of the stuctures. As soon as learners notice the restrictions of simple and complex negations, the error rates tend to decrease again. This is supported by the U-shaped learning curve in Figure 13.

The number of IL variants and at the distribution of errors both show whether the number of error types decreases. Additionally, it reveals which error types need special observation. Table 26 summarises the different error types and their relative percentages of occurrence in each learning stage, while Figure 14 visualises the development of errors.

IL variant	Stage I % n=403	Stage IIa % n=191	Stage IIb % n=213	Stage III % n=260
constituent fragmentation	2,48 (n=10)			
subject omission	2,73 (n=11)			
verb omission	6,2 (n=25)	1,05 (n=2)	1,41 (n=3)	0,77 (n=2)
error in negation type	3,97 (n=16)	60,2 (n=115)	46,95 (n=100)	27,69 (n=72)
double negation	0,25 (n=1)			
error in verb form	4,96 (n=20)	1,05 (n=2)	0,47 (n=1)	0,77 (n=2)

Table 26: Error types in IL negation and their frequency of occurrence in %

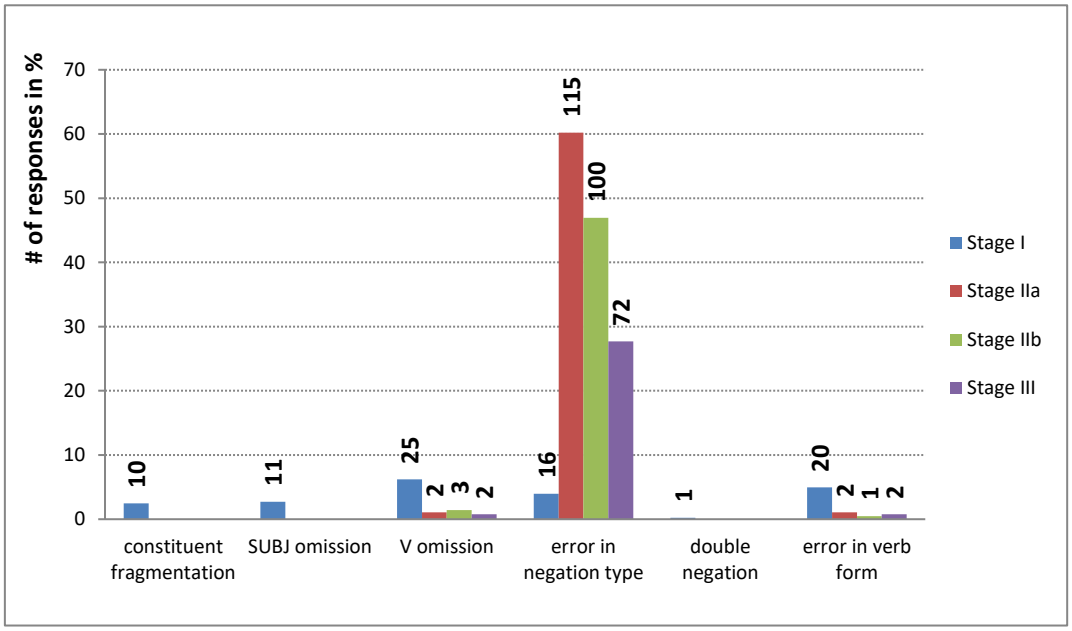

Figure 14: Development of the error types in IL negation from Stage I to III

The table shows that the number of IL variants in Stage IIa and IIb decreased. However, the accuracy rates were still low compared to Stage I. Some error types from Stage I disappeared in Stage II, such as constituent fragmentation, subject omission and double negations. The relative percentage of instances of verb omission, which had been considerably prominent in Stage I, steadily decreased. The same applies to errors attributed to erroneous inflection, labelled as 'error in verb form'. The latter error type is of special interest as it reflects the learners' progress in acquiring the target-like forms of BE. As the rate was less than 1%, it is tempting to consider errors of this type as accidental mistakes as opposed to

systematic errors. Additionally, the tremendous increase of errors in negation types is of particular interest. The learners in Stage IIa and IIb had strong tendency to use a deviant negation type (**he isn't fly* instead of *he can't fly* or **he don't is* instead of *he isn't*). The figure illustrates the overgeneralisation of complex negations and the erroneous application of this schema to verbs that require simple negations. This error type is a particular issue of difficulty, since numerous responses featured the erroneous use of *do*-support. While the other IL variants had decreased by Stage II, errors in negation types emerged and became the most problematic aspect of IL negation.

Moreover, the errors labelled as 'error in negation type' can be further divided into subcategories, as they mostly correlate with other IL variants, such as word order (**I am don't*), constituent fragmentation (**Ananda don't and Dilip has got*) and verb omission (**I don't from Be*rlin), as illustrated in Figure 15.

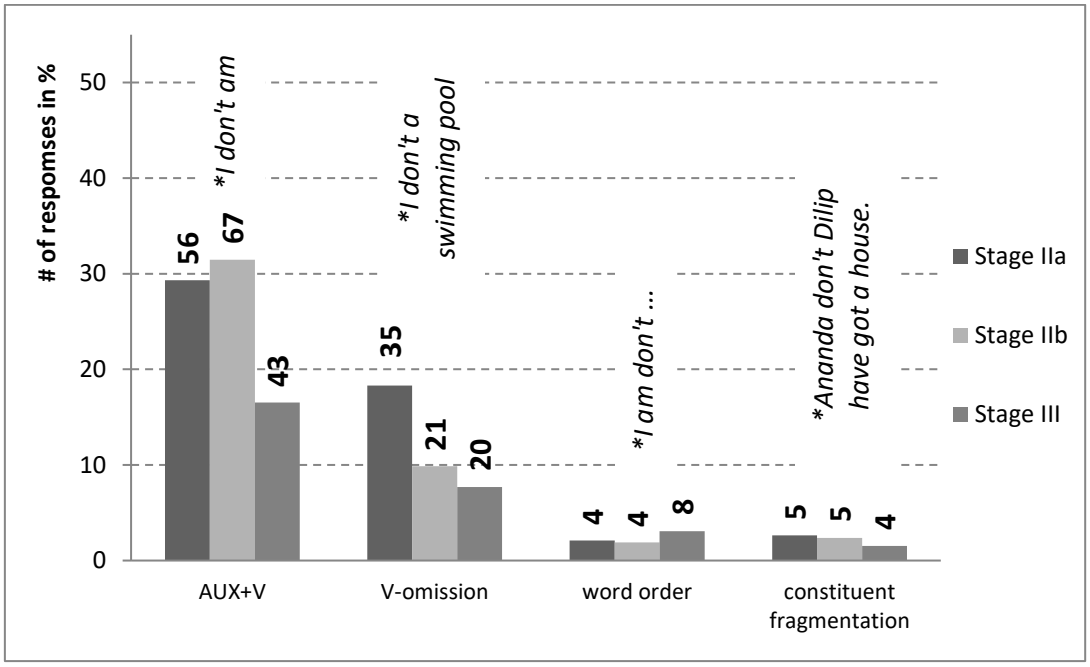

Figure 15: Development of the error rates for IL variants with erroneous *do*-support

Errors in word order (**I am don't*) and constituent fragmentation (**Ananda don't Dilip have got a house*) were rather rare and seem to play only a minor role in the further development of IL negation. They were persistent, but less likely to occur, as reflected by the relatively low percentage. It has been suggested in the previous sections that constituent fragmentation tends to occur more frequently with coordinating NPs, which learners attempt to simplify by splitting them into less

heavy constituents. The result of this operation is an unidentifiable, stranded phrase. This implies that fragmented constituents are not directly linked to IL negation, but to IL syntax instead. Constituent complexity as defined previously seems to affect the learners' responses

Responses with the erroneous use of *do*-support (**I don't am*), labelled as 'AUX+V', and with verb omission (**I don't from Berlin*) proved relatively frequent and consistent. Figure15 shows that in Stage IIa the learners used both negation types with a preference for complex negations (AUX+V: 29,31%; verb omission: 18,32%). Especially the latter response type provides further support for the claim that meaning overrides form, as the use of the negator *don't* appeared to suffice for the learners to express the negative meaning of a sentence. In a sentence such as **He don't from Berlin* or **I don't a swimming pool*, the learners did not notice the empty VP slot. The further development of this IL variant is even more striking, as the overall percentage of verb omission decreased in Stage IIb, while responses with complex negations slightly increased. This might imply a transition from verbless structures to the possible TL negation schema with *do*-support. Although the target verbs do not permit *do*-support, the pattern does not violate the formation of English negation itself. The learners probably began to recognise the verb as the major constituent of the sentence. Instances of verb omission still remained at a considerably high level (IIb: 9,86%; III: 7,69%), but the decline is indicative of a gradual development of the learners' syntactic awareness. For a more precise analysis, the development of errors for each verb type needs closer observation. The following sections analyse the responses in negations with BE, *can*, *have got* and full verbs.

5.4.1.1 Errors in BE

In the process of acquiring negation, errors with BE exhibit a general decrease in the number of IL variants, as displayed in Table 27.

IL variant	Stage I	Stage II	Stage IIb	Stage III
	% n=295	% n=59	% n=69	% n=71
constituent fragmentation	3,05 (n=9)	-	-	-
subject omission	3,39 (n=10)	-	-	-
verb omission	7,12 (n=21)	3,39 (n=2)	4,35 (n=3)	2,82 (n=2)
error in negation type	3,73 (n=11)	-	-	-
error in verb form	3,73 (n=11)	1,69 (n=1)	-	1,41 (n=1)
do-support	-	62,71 (n=37)	47,83 (n=33)	47,89 (n=34)

Table 27: Development of the number of responses for negative statements with BE

Constituent fragmentation, subject omission and confusion with the other two verbs, which had all occurred in Stage I, disappeared in Stage II. Some responses in Stage III featured errors, such as **We have got in room 016* instead of *We are in room 016* or **We haven't got in the same class* instead of *We aren't in the same class*. Responses of this type, to some extent, might be considered instances of cross-linguistic influence, since informal, spoken German permits these constructions (*Wir haben nicht in Raum 016*; *Wir haben nicht in der gleichen Klasse*)[52]. The learners seemed to draw on structures that permit BE substitution in their NL. In English, however, the responses are clearly incorrect, since *have got* requires an object phrase.

The only error type that persists in all stages comprised instances of verb omission, as in **I not from Berlin*. This reflects the relative stability of the IL variant, in spite of its relatively rare occurrence (IIa: 3,39%, n=2; IIb: 4,35%, n=3; III: 2,82%, n=2). Instances with verb omission have also been accounted for in L1 acquisition by Capdevilla i Batet and Llinàs i Grau (1995). The authors suggest that responses of this type can be attributed to maturational constraints (cf. Capdevilla i Batet and Llinàs i Grau 1995:40). Accordingly, learners do not have access to the functional categories of a language and tend to draw on lexical categories, especially in early stages of learning (cf. Capdevilla i Batet and Llinàs i Grau 1995:40). Learners apparently perceive the negative marker as sufficient for expressing the negative meaning of a sentence. The findings in L1 acquisition seem

[52] Native speaker's comment.

to apply to the foreign language classroom as well, as the error rates due to copula omission imply.

In the previous section, an immense decrease in target-like performance in Stage IIa and a comparatively low increase in Stage IIb was most striking in the data set. The recovery in Stage IIb and III was relatively low compared to the high accuracy rates in Stage I. Simultaneously, negations with the erroneous use of *do*-support emerged in Stage II and proved rather persistent. In Stage III, target-like structures without *do*-support and erroneous negations with *do*-support occurred at approximately the same frequency (47,83%). The schema '*don't/doesn't* + BE' was not restricted to individual students only; it was also used by learners who had previously been able to form target-like negations with BE. The high error rates imply that acquiring complex negations requires more time than scheduled by the textbook. Learners apparently incorporate other verb types than BE more rapidly and more easily into their IL systems. Negating sentences with copula is likely to cause more difficulties when detecting whether *do*-support is required or not, which leads to increased error rates. A potential reason might be the relatively early introduction of negative statements with BE. When the textbook introduces the negated forms of BE, learners store *isn't*, *aren't* and *am not* as chunks, probably due to the suppletive inflectional paradigm. As soon as negations with *do*-support are introduced, a transition from exemplar-based reproduction to rule-based production is observable. Learners increasingly replace the chunks by drawing on more systematic rules, which in this case is *do*-support. However, the restructuring process requires more time than expected to facilitate the detection of the target-like distribution of the two structures. This explanation can account for the difficulties the learners had with BE. In Stage III, they did not reach the level of attainment found in Stage I.

5.4.1.2 Errors in *have got*

The results for the possessive verb *have got* were similar to those of BE, as the following table reflects.

IL variants	Stage I	Stage IIa	Stage IIb	Stage III
	% (n=53)	% (n=70)	% (n=75)	% (n=120)
verb omission	5,66 (n=3)	-	-	-
error in negation	5,66 (n=3)	2,86 (n=2)	-	-
error in verb form	16,98 (n=9)	1,43 (n=1)	1,33 (n=1)	0,83 (n=1)
error in negation (AUX)	-	61,43 (n=43)	46,67 (n=35)	25,83 (n=31)

Table 28: Development of the number of responses for negative statements with *have got*

The learners started with a considerably high accuracy rate, albeit lower compared to the amount of correct responses for BE and *can*. In Stage IIa, a decrease was observable, followed by a high increase in Stage IIb. The table reveals a general tendency to overuse *do*-support in negative statements. In Stage IIa and IIb, the scores for *have got* were slightly higher than with BE. Errors in verb forms, as in **he haven't got*, were rare (n=1) and might be regarded as accidental, non-recurring mistakes.

The response types, in general, exhibited less variation than they did in the previous section concerning the copula BE. Verb omission in Stage IIa and IIb disappeared from list of IL variants, which might be indicative of an evolving sense of a well-formed sentence. With regard to the semantic content of a sentence, the learners seemed to perceive *have got* as more meaningful in an utterance than the copula BE. A sentence like **He not the teacher* is apparently processed more easily as referring to a person who is not the teacher than **He not a swimming pool* as somebody who does not possess a swimming pool. Thus, learners tend to ascribe more content to *have got* than to BE, which does not seem to carry any overt meaning for the students. In Stage IIa, the learners apparently began to detect that the verb describes the relationship between the subject and the object and that *have got* is required in order to express that an object, the possessum, belongs to a subject, the possessor. Markedness relations with regard to inflection, as defined by Eckman (1973), might also have a facilitating effect on restructuring. In contrast to BE, *have got* features fewer forms. Thus, it is less marked than the copula in terms of inflection. This property might be a contributing factor in acquisition, as indicated by the rising scores in Stage III.

5.4.1.3 Errors in *can*

Compared to the other target sentences, the ones with the modal verb *can* featured the lowest number of IL variants. Table 29 summarises the development of the erroneous response types:

IL variants	Stage I	Stage IIa	Stage IIb	Stage III
	% (n=55)	% (n=62)	% (n=69)	% (n=59)
verb omission	1,82 (n=1)	-	-	-
subject omission	1,82 (n=1)	-	-	-
double negation	1,82 (n=1)	-	-	-
constituent fragmentation	1,82 (n=1)	-	-	-
error in negation	3,64 (n=2)	3,23 (n=2)	2,9 (n=2)	-
error in negation (AUX)	-	50,0 (n=31)	42,03 (n=29)	16,95 (n=10)

Table 29: Development of the number of responses for negative statements with *can*

Most of the error types disappeared in Stage IIa. The only persistent response type comprised the choice of an erroneous negation type, mostly the use of the copula BE instead of *can*, as the following examples show.

(37) `*You aren't fly.` (You can't fly)

(38) `*You aren't speak.` (You can't speak)

As was the case with the other target sentences, the relative percentage of occurrence was relatively low (<5%). It is questionable whether this was a systematic error or a non-recurring mistake. Moreover, this IL variant disappeared in Stage III, which emphasises its limited significance.

Similar to the previous verb types, the learners began with a considerably high accuracy rate in Stage I, which drastically decreased in the further stages. What was different, though, was the extent of destabilisation. In Stage IIa, the accuracy rates were significantly higher than with *have got* and BE (n=29; 46,77%), and even higher in Stage IIb (n=38; 55,07%). In Stage III, more than 80% of all responses were correct. Forming negative statements with *can* seemed to be easier for the students than with the other target verbs, as the high accuracy rates imply. The IL variant 'error in verb form' was completely absent, since the modal *can* lacks

inflected forms. The difference in terms of inflection obviously reduced the number of potential error sources. The present data support the hypothesis that inflectional markedness affects the error rate. Consequently, *can* seems to be easier than other verbs that feature inflection, as learners can draw on rules without considering suffixation. The only issues of difficulty were related to finding the correct verb in the target question and forming the negation respectively (*can't* + V) without *don't* or *doesn't*. The erroneous use of *do*-support with *can* was the major error source from Stage IIa onwards, but compared to the other verb types, the percentage was considerably lower. The learners were more likely to produce target-like negation with *can* than with other verbs. The observation parallels the findings in L1 research. Capdevilla i Batet and Llinàs i Grau attribute the early occurrence of *can't* to its formulaic nature (cf. 1995:39). The absence of positive forms with *can* in first language acquisition provides further support that learners store *can't* as a whole chunk in their mental lexicon. They retrieve their knowledge more easily with the negated modal than with other verbs. As a result, *can't* seems to be less prone to errors and destabilisation than BE or *have got*.

5.4.2 Errors in Complex Negations

The general shape of complex negations encompasses the inflected form of *do* with third person singular subjects, the negator *not* and the infinitive of the main verb (*do* ± *es* + *n't* + V). The new structure was the main trigger of errors with simple negations in Stage IIa and IIb, as was discussed in the previous sections. The learners overgeneralised the pattern of complex negations by expanding it to structures which do not permit *do*-support. The impact of overgeneralisation was severe in Stage IIb, i.e. the expected post-restructuring stage, and the error rates remained at a considerably high level. In Stage III, restructuring was observable to some degree. The following figure illustrates the distribution of error types and how frequently they occurred in the individual learning stages. Table 30 lists examples of the error types.

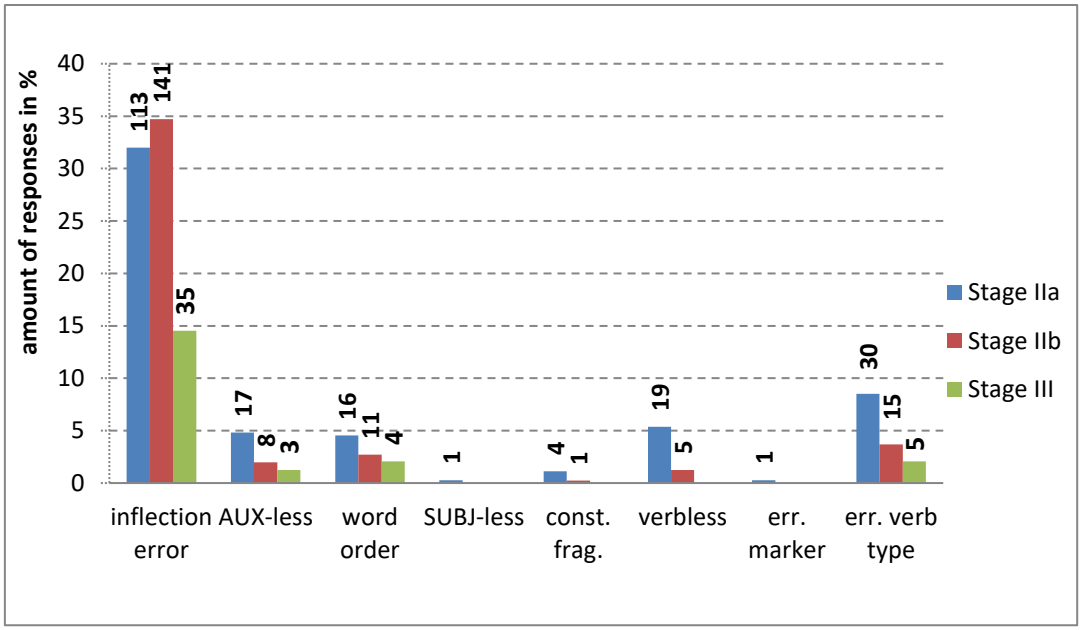

Figure 16: Development of the IL variants with their respective frequency of occurrence

type	*example*	Stage IIa (n=353)	Stage IIb (n=406)	Stage III (n=241)
inflection error	**He doesn't goes.* **He don't goes* **He don't go* **I doesn't go*	32,01% (n=113)	34,73% (n=141)	14,52% (n=35)
AUX omission	**I go not* **She feeds not*	4,82% (n=17)	1,97% (n=8)	1,24% (n=3)
word order	**I go don't*	4,53% (n=16)	2,71% (n=11)	2,07% (n=4)
SUBJ omission	**No, [X] doesn't get up*	0,28% (n=1)	-	-
constituent fragmentation	**Dan and Jo's don't father goes to work on Sundays.*	1,13% (n=4)	0,25% (n=1)	-
verb omission	**We don't [X] from London*	5,38% (n=19)	1,23% (n=5)	-
erroneous marker	**My mum and dad goesn't to bed late.*	0,28% (n=1)	-	-
erroneous verb type	**I'm not listen to music at school* **You aren't play*	8,5% (n=30)	3,69% (n=15)	2,07% (n=5)

Table 30: List of the response types for complex negations and their respective frequency of occurrence

A general decrease in the number of IL variants in Stage IIb was observable. Instances of subject omission and erroneous marking were absent. Moreover, the other IL variants were also less likely to occur in Stage III, as the relative percentage of occurrence was less than 5%. In Stage III, the number of errors in negations that

require *do*-support decreased, whereas the accuracy rate increased (n=206; 81,1%). Conversely, the number of responses with erroneous inflection slightly increased in Stage IIb. Errors referred to as 'erroneous inflection' included three deviant structures. These were restricted to third person singular subjects only. Responses featured, first, double inflection (**he doesn't goes*); second, no AUX inflection, but an inflected main verb (**he don't goes*); and third, no inflection at all (**he don't go*). *Do*-support appeared in all the three variants, but the inflection deviated from the target-like form. In Stage IIa and IIb, these IL variants were the main errors of learners. A discussion of potential reasons follows after a brief presentation of the other error types.

Errors attributed to word order, as in **I go don't*, are of special interest as they can be regarded as instances of crosslinguistic influence from the learners' NL. German, unlike English, has postverbal negation (*Ich gehe nicht*). The sentences reflect the German structure of negative statements. Furthermore, the responses exhibit a formulaic representation of the TL structure as learners apparently analysed the negative marker *don't* as the German negator 'nicht' instead of 'tut nicht'.

(39)
```
I     don't      go    to school    on Sundays.
Ich  tue nicht   gehen zur Schule   sonntags.
```

Standard German does not permit constructions of this type, although it is acceptable in some dialects.[53] The negative marker *not* ('nicht') follows the verb without an auxiliary.

(40)
```
Ich gehe nicht zur Schule sonntags.
I   go    not to school  on Sundays.
```

The negators *don't* and *doesn't* seem to be formulas carrying the meaning 'nicht' instead of 'tut nicht'. The learners apparently made use of the structure by drawing on the syntactic rules of their NL. Interestingly, this IL variant is similar to the negative statements without *don't* and *doesn't*, as in **I go not* or **She feeds not*, which also feature postverbal negation. The examples might be seen as evidence of the effect of the learners' NL on the acquisition of English negation. They exhibit the German syntactic structure with postverbal negation to an even greater extent, since *do*-support is omitted. Both response types, with and without *do*-support,

[53] Native speaker comment.

occurred in 9,35% of the cases in Stage IIa with a decrease in Stage IIb (4,68%). As Stage II can be regarded as a period of chaos in the learners' IL systems, it might be tempting to hypothesise that crosslinguistic influence is an indicator of instability. In Stage IIa, learners drew on their NL German with postverbal negation. Even though learners still responded with postverbal negative markers in Stage IIb, the overall error rate due to this IL variant was comparatively low. This can be regarded as an indicator of the decreasing influence of the learners' NL, since the learners increasingly used the target-like formation pattern.

Perspectives emphasising a natural order of acquisition constitute another approach to learning negative statements in the classroom (cf. Dulay and Burt 1973, 1974a; Bailey, Madden and Krashen 1974; Dulay, Burt and Krashen 1982; Pienemann 1998, 2008). They suggest that acquiring negation proceeds in four steps as Table 31 shows.

Stage	**Description**	**Example**
1	External negation (i.e. 'no' or 'not' is placed at the beginning of the utterance).	*No you are playing here*
2	Internal negation (i.e. the negator – 'no', 'not' or 'don't' is placed between the subject and the main verb).	*Mariana not coming today.*
3	Negative attachment to modal verbs.	*I can't play that one.*
4	Negative attachment to auxiliary verb as in target language rule.	*She didn't believe me. He didn't said it.*

Table 31: Stages of acquisition of L2 negation according to Dulay, Burt and Krashen (1982) as in R. Ellis (2008:93)

At first sight, the responses without *do*-support resemble the first stages of the model exemplified in Table 30. However, a closer look at the data shows that the proposed order does not apply to the results of the questionnaires for two reasons. First, the results are deviant in terms of their syntactic structure, as morpheme order studies account for a preverbal negation structure (e.g.**He not go(es)*). The students in this study, by contrast, made use of postverbal negation exclusively whenever they used the negator *not* without *do*-support. Secondly, the data in this dissertation do not provide sufficient quantitative evidence that negations without *don't*

constitute a stage in the acquisition process, since the relative percentage was less than 5% of all responses. Claiming that learners pass a period in which they produce responses without *do*-support is a generalisation and neglects the vast number of other response types that do feature *do*-support. The results of this study are only weak support for theories that consider responses without auxiliaries as one stage in the acquisition of negation.

The most prevalent response type in this study includes erroneously inflected forms, such as **He don't goes* in Stage IIa and IIb (32,01% and 34,73% respectively). The IL variant 'erroneous inflection' can be divided into three categories, as the following examples show.

(41) `*He don't go` (no inflection)

(42) `*He don't goes` (main verb inflection)

(43) `*He doesn't goes` (double inflection)

The learners did use *do*-support. However, the inflection deviated from the target-like form. This demonstrates that TL awareness, to some extent, had evolved and that learners noticed that negations in English require *do*-support. Those few learners who initially drew on their NL with postverbal negation without *do*-support increasingly began to use *don't* and *doesn't* for negative statements. The only issue of difficulty addresses the target-like inflection of the auxiliary. The high error rate in Stage IIb and III, due to deviant inflection, reflects the persistence of inflection errors. The following table exemplifies the distribution of errors among the three response types as depicted by the examples (41) to (43).

		Stage IIa		**Stage IIb**		**Stage III**	
type	***example***	**n=57**	**%**	**n=63**	**%**	**n=67**	**%**
no marker	**He don't go*	7	**12,28**	1	**1,59**	3	**4,48**
V-marker	**He don't goes*	13	**22,81**	12	**19,05**	2	**2,99**
double marker	**He doesn't goes*	37	**64,91**	50	**79,37**	15	**22,39**

Table 32: Number and relative percentage of the error types with regard to inflection errors

As soon as the TL pattern was taught, the learners incorporated the structure into their IL systems. This structure, however, merely approximates the target-like

formation of negation. The data show that learners generally tend to inflect both *do* and the main verb. The responses without any marker (**he don't go*) already decreased in Stage IIa, as did the responses with inflected main verbs (**he don't goes*). Instances of double inflection conversely increased and became the dominant negation schema in Stage IIb. However, the error rate continuously decreased, reflecting the learners' evolving awareness of inflectional properties. What the learners still lacked was the correct placement of the suffix. They knew from previous teaching units on positive statements that third person singular subjects take the suffix *–s*. The results show that the learners did use the inflected negator *doesn't*; however, they inflected the main verb as well. As a result, erroneous responses due to double inflection increasingly occurred. Apparently, *doesn't* was not considered an auxiliary that carries the third person singular marker. The learners apparently ascribed the meaning 'nicht' to *doesn't* without any grammatical function. It seems that learners draw on an IL hypothesis that features two types of negative markers, both denoting 'nicht' (i.e. *don't* and *doesn't*). The respective IL rule tells them to use *don't* with third person singular subjects and *don't* with others. The responses show that learners do not seem to realise that *doesn't* as already having the inflectional marker *–s*. This might indicate that *don't* and *doesn't* are represented as formulas without any grammatical function. As a consequence, learners mark the main verb with the third person singular suffix *–s* and produce erroneous responses. Interestingly, findings in studies in L1 acquisition account for similar processes, but with regard to tense (cf. Capdevilla i Batet and Llinàs i Grau 1995). Reponses, such as **he didn't went*, which feature double-marking as well, occur relatively frequently in children's language. This might be the result of formulaic reproduction (cf. Capdevilla i Batet and Llinàs i Grau 1995:41). The occurrence of responses with double marking highlights the similarities between L1 and L2 acquisition.

The formulaic nature of the structures from a U-shaped learning perspective implies that the restructuring process requires more time than expected by the textbook. Forming negative statements in English involves various operations, such as recognising the subject and the verb, which learners have to incorporate into their IL systems. Although the curves in Figure 13 reflect a slight improvement, numerous responses were still incorrect, predominantly due to inflection errors. The learners apparently were in the process of reorganising their existing IL hypotheses,

since they had not yet considered the negator as bearing grammatical information (person, number, tense). Apparently, learners need more time to proceed from formulaic reproduction of *don't* and *doesn't* to rule-based production with a grammatical analysis of the structure.

Support for UG approaches as to the order of acquisition (cf. Bailey, Madden and Krashen 1974; Dulay and Burt 1973, 1974b; Larsen-Freeman 1975) or Processability Theory (PT) (cf. Pienemann 1998; 2008) is considerably weak in this study. Both the aforementioned positions suggest that learners acquire *do*-support relatively late in foreign language learning and that learners are more likely to omit the auxiliary, as in **he not go* and **I want not* (cf. Pienemann 1998, 2008). The data in this study, by contrast, imply that learners do acquire complex negations early and even expand this negation pattern to verbs that do not permit *do*-support. This shows that learners know that negative statements require the use of *don't* and *doesn't*. They merely struggle with detecting which structures take *do*-support and which ones do not. The results of this study do not necessarily conflict with previous research on natural, universal orders. The differences can be attributed to the distinctive setting of data collection. Most of the research so far has focused on either adult learners or on early FL learning in primary schools. The emphasis of this dissertation, however, is on the classroom setting of secondary schools with a completely different learning and teaching mode. FL teaching in secondary school includes grammar teaching by drawing on implicit-inductive principles (cf. Nassaji and Fotos 2004), such as noticing (cf. Schmidt 1990) and processing instruction (cf. Van Patten 1996). Primary schools do use similar teaching modes; however, linguistic principles are neglected. The divergent results between this study and previous research might be the result of different learning settings.

If there was an order of acquisition in the classroom, it would comprise five stages according to the data of this dissertation. In the first stage, learners draw on formulas for simple negations. Evidence comes from the Stage I questionnaire on BE, *can* and *have got*. In the second stage, learners proceed to structures with *do*-support with erroneously inflected forms. At the same time, they expand the pattern of complex negations to verbs that do not permit *do*-support, which indicates that learners begin to replace formulas with systematic rules. In the third stage, the correct inflection rules emerge as to the distribution of *don't* and *doesn't* and double inflections disappear. Next, learners detect which verbs take *do*-support and which

ones do not, with the exception of BE. Finally, in the fifth stage, learners prove able to negate all the verbs, including the copula BE. In this stage, learners have ideally achieved ultimate attainment. However, the data in this dissertation do not provide empirical support as to when learners reach this end-point in acquiring negative statements. The following table captures the steps in acquiring English negation:

	IL competence	example	evidence
1	**[-] *do*-support:** formulaic negations	*He [isn't] his friend* *I ['m not] Tom.*	***Stage I***
2	**[+] *do*-support:** overgeneralisation of *do*-support erroneous inflection	**He don't goes* **I doesn't can* **She doesn't likes* **I don't am* **I doesn't has got*	***Stage IIa***
3	**[+] *do*-support:** overgeneralisation of *do*-support	*I don't like* *He doesn't watch* **He doesn't can* **He doesn't have got*	***Stage IIb***
4	**[+/-] *do*-support:** overgeneralisation of *do*-support only for (to) be	*He hasn't got* *He can't* **He doesn't is*	***Stage III***
5	**[+/-] *do*-support:** correct application of *do*-support	*He [is][n't]* *I['m][not]*	***further stages***

Table 33: Suggested order of acquiring English negation on the basis of the present study

The results of this study show that learners acquire *do*-support as soon as the textbook introduces it. The overall high representation of complex negations due to overuse is indicative of the initial overgeneralisation that learners have to resolve over time.

5.4.3 Summary

In the negation set, a general increase of the learners' proficiency was observable with regard to the development of syntactic competence. The number of frequent errors, such as constituent fragmentation or subject and verb omission, decreased. The data provide further support for the substantial role of IL variants and the distribution of errors in the developmental stages, since the responses reflected a decrease in the number of IL variants in simple and complex negations alike. A general tendency to abandon certain response types was a characteristic of both

simple and complex negations. This reflects the learners' attempt to detect the target-like distribution of the respective structures. Some response types disappeared completely, especially accidental ones, such as subject omission in Stage IIa, or decreased dramatically, such as inflection errors or confusion of negation types in simple negation (**I aren't fly*). The disappearance of error types supports the DST claim that a decrease in variability implies the stabilisation of the IL system (cf. De Bot, Lowie and Verspoor 2007a, 2007b). The findings show that learners tend to overuse the pattern of complex negations rather than producing simple negations without *do*-support, as natural order theories and PT suggest (cf. Pienemann 1998, 2008). The learners applied the structure to verbs that do not permit *do*-support. Negative statements with BE were affected by overgeneralisation in particular, as reflected in the low accuracy rates in Stage III. The results reveal that the reorganisation of the leaners' IL systems required more time than scheduled by textbooks.

5.5 Negation in Textbooks

The difficulties of learners in acquiring English negation with and without *do*-support raise the question as to how far textbooks can and do facilitate the acquisition process. With regard to the requirements formulated in 2.2, textbooks should provide learners with a sufficient amount of both frequent and salient input (cf. Larsen-Freeman 1976a, 1976b, 2011; Goldschneider and DeKeyser 2001; N. Ellis 2002, 2005; Ellis and Ferreira-Junior 2009; Ellis and Larsen-Freeman 2009). Therefore, an analysis of the input in the first and second units in Cornelsen G21 D1 (2006), which introduces negative statements with BE, *can*, *have got* and verbs that require *do*-support, is essential. The following table depicts the sentences that occur in the textbook in Units 1 and 2:

	BE	***can***	***have got***	***do*-support**
Unit 1	No, they aren't. We aren't 11. Our mum isn't here. Our mum and dad aren't together. One name isn't enough? Mr Baker isn't a bank robber. Her sister isn't very nice. Emily isn't nice.	I can't play football. You really can't see who is Jo.	I haven't got a chair.	
Unit 2	This isn't very good. She just isn't here			I don't need your help. You don't like me. I really don't need your help. You don't argue sometimes. He doesn't do judo. They don't go to bed early. We don't need the old essay.

Table 34: Sentences featuring the target verbs (input) in Cornelsen G21, D1 (2006) Units 1 and 2

In light of the low representation of *can't* and its high accuracy rates in the data, it plausible to suggest that the structure is highly formulaic and therefore acquired rather early by learners. The amount of input is considerably low with only two sentences presented in the textbook. As regards frequency effects, the frequency of occurrence is suboptimal for acquisition. Nevertheless, learners acquire it without difficulties as the previous results have showed. As the immense increase in accuracy in Stage IIb implies, U-shaped learning does occur, however, and restructuring takes place earlier compared to the other target verbs. Sentences with *haven't got* and *hasn't got*, by contrast, are underrepresented, since only one sentence can be found. This is insufficient in terms of frequency effects. Learners do not receive the necessary information about the distribution of the two structures. Positive statements do exist in the input, but the learners' strategies in initial stages suggest that students do not transfer *have got* and *has got* to negative statements. This operation is too complex in the first weeks of learning English, as in authentic speech situations learners have to process the sentence for meaning (positive or negative) and to employ the negative marker. Instead of adding the negator *not* to the verb, learners reproduce the entire sequence, *haven't got* or *hasn't got*. Due to the insufficient amount of input reflecting the distribution of these two forms,

learners fail in deducing the target-like distribution from the input alone. More explicit teaching is required. The results validate the potential difficulties which derive from the limited amount of input. The learners struggled with *haven't got* and *hasn't got* and errors persisted over a relatively long period of time.

As regards BE, the textbook provides the learners with a substantial amount of information about the distribution of the forms. Input exists and it comprises all the various forms of the copula. Since the requirements as formulated in Chapter 2.2 can be regarded as fulfilled, errors should have occurred less frequently. It seems plausible to attribute the persisting errors to the suppletive forms of BE. Moreover, the learners' limited processing capability might additionally complicate the correct analysis of the subjects, especially with complex constituents (e.g. *my sweet little baby dog*, *my younger sister*). Errors with multiword NPs have also been documented in Chapter 4.

Destabilisation occured in Stage IIa when complex negations were introduced. The text includes sentences with different subjects and a box. This offers an inductive approach to the topic (cf. Cornelsen G21 D1 2006:40) to facilitate the noticing process of the target structure. In addition to that, the box and the audio file feature input enhancement, such as bold and coloured printing or a change in prosody and pitch respectively. The study shows that the learners struggled, above all, with the negation type, i.e. *do*-support versus no *do*-support, and the inflectional marker with third person singular subjects. Linking the results to the analysis of the textbook raises the question as to how the material used in the classroom supports the learners in acquiring the target-like distribution of the two structures. Special emphasis is on the selected input. The distribution of sentences with and without *do*-support shows that the input texts rarely include negative statements with simple negations after *don't* and *doesn't* have been introduced. This results in errors for verbs that reject *do*-support, as the learners tend to overgeneralise the recent negation pattern. As a consequence, students expand *do*-support to verbs that, in fact, require simple negations. Since the textbook does not contrastively present the two distinct negation types, teachers have to draw on more explicit teaching modes to support the learners in distinguishing between the two competing negation types. This might also support the learners in detecting the target-like distribution of the two negation types.

As regards the second error type, i.e. erroneous inflection, the unequal distribution of negative statements along the potential subjects can explain the difficulties. Only one sentence features a third person singular subject with *doesn't*. With regard to frequency effects, learners cannot detect the distribution of the two forms *don't* and *doesn't*, as the latter rarely occurs in the unit. This can account for the errors in sentences with third person singular subjects, which trigger answers such as double marking (**he doesn't goes*), verb marking instead of do-marking (**don't goes*) or no marking at all (**he don't go*). The two persisting IL variants, i.e. errors in negation type and errors in inflection, show that textbooks should consider the relatively long restructuring period. The acquisition of English negation is an issue that requires more time and effort from learners than expected by the textbook. During this long process, learners require more support by means of more adequate input, which helps them to detect the target-like representation of the respective structures. The data in this dissertation suggest that learners should receive more evidence in the follow-up texts concerning verbs with and without *do*-support as well as more variation in terms of the choice of the target subjects.

The second criterion defined in 2.2 addresses the tasks used in Cornelsen G21 D1 (2006), which vary with regard to complexity and design. The textbook employs both analytical tasks that focus on the form exclusively and tasks that are more demanding, such as games, quizzes or dialogues in which learners have to use the target structure. Table 35 summarises the types of tasks:

BE	*can*	*have got*	*do*-support
Game: Are you a …? Yes, I am/ No, I'm not	***Game:*** ***Can you …?*** No, I can't/ Yes, I can.	***What have they got?*** dialogue task	***I don't, he doesn't*** focus on forms = *don't* or *doesn't*
Prunella isn't a parrot focus on form	***Can Ananda play hockey?*** picture description task	***Who has got what?*** picture description task	***Can you remember? A quiz*** sentence correction task
Yes, he is./No, she isn't sentence correction task	***What can they do?*** picture description task	***What have they got?*** table description task	***Right or wrong?*** sentence correction task
What's wrong? sentence correction/picture description task			***What Prunella does*** focus on forms
About you focus on meaning			***Unit 3: Revision*** two tasks with focus on form

Table 35: Tasks and task types requiring negative statements in Unit 1 and 2

The textbook uses other tasks for *can't* and *haven't*/*hasn't got* than for BE or for complex negations. The tasks provided for *can* and *have got* comprise positive and negative statements, which is relatively complex for learners in terms of the operations involved to complete them. The students have to analyse whether the sentence is correct or incorrect and to detect the appropriate verb form. Learners are likely to struggle due to the formulaic representation of the structures. They have not yet detected the target-like distribution of *have got* and *has got* (*haven't* and *hasn't got* respectively). Although recent textbooks tend to avoid focus on form, handling the negation of *have got* and *has got* in particular would be worth considering; it might support the learners in detecting the distribution of these two structures. Learners seem to work on the tasks in a different way than expected by the textbook. Instead of locating the subject in a sentence and then adding *n't* to the verb, they opt for considering the meaning of a sentence (positive or negative) and then for finding the correct verb form. At this initial stage, they tend to be unaware of the identical distribution of *have got* and *has got* in positive and negative sentences. The tasks apparently are too complex, as learners lack the necessary linguistic knowledge at this stage.

In contrast to the challenging task demands, the task design for *can* and *have got* are rather simple. Learners receive a topic and must make use of their background knowledge to solve the task. For BE and complex negations, there is more variation in task design and task complexity with both focus on form and on meaning. Tasks that engage the learners in communication and that are cognitively more demanding are included. It might be beneficial to add tasks that refer to the learners' realm of experience. These could include the creation of a quiz about classmates, for instance, as a complement to the task *Can you remember?*. Learners might produce sentences and the class must detect whether the statements are correct or not, as the following examples illustrate:

(44) Marc plays American football.
- No, he doesn't play American football.

(45) Mr. Kounatidis teaches Spanish
- No, he doesn't teach Spanish.

(46) We've got English on Friday.
- No, we haven't got English on Friday.

A task of this type raises the learners' motivation since it applies to their realm of experience. Moreover, it also activates previous linguistic knowledge, such as subject substitution for responding, the third person singular *–s,* or the use of negative statements.[54] Such a task triggers the use of responses with and without *do*-support, which is completely absent from the textbook, and helps the learners to detect the use of both negation types. The findings in this dissertation prove beneficial for textbook compilers; they show that learners appear to forget what they previously knew about negations without *do*-support and they overgeneralise the new pattern when applying it to verbs that reject *do*-support. Thus, textbooks should incorporate tasks for practicing the distinct use of the two negation types.

5.6 Summary

Chapter 5 demonstrated that learners of English encounter severe difficulties with restructuring their IL system as soon as the textbook introduces negative statements with *do*-support. The shift from exemplar-based reproduction for the negative forms

[54] It might be worth restructuring the teaching units and to treat questions and negative statements with *do*-support in the same unit. The syntactically similar structure contributes to strengthening the learners' use of *do*-support and the inflectional rules (e.g. no full verb marking). Furthermore, this would permit a wide variety of tasks, including more authentic communication, since negations are usually linked to questions.

of the copula BE, *can't* and *haven't/hasn't got* is observable. The learners must detect which verbs take *do*-support and which ones do not. There has been no empirical support for previously suggested developmental paths as suggested by UG or PT approaches. This might be due to the difference in setting and teaching mode. Moreover, the results have consequences for didactics. Teaching material should focus on the intense practice of the correct inflection of negative statements, i.e. no inflection of the main verb and the inflection of *do* if necessary. If learners do not fully acquire the target-like marking of the negator, teachers can expect severe consequences in other tenses or question formation where inflection is significant as well. As a result, learners might store an incorrect IL rule that will have a negative impact on responses in the future. At the same time, more tasks should focus on the delimitation of simple and complex negations. This requirement is reflected by the learners' tendency to overuse *do*-support and to expand it to all negation types even if not permitted (e.g. BE, *have got*, *can*). As current textbooks offer tasks with the individual negation types separately, learners are likely to confuse the two distinct negation patterns. This results in the dominance of one pattern over another and the overgeneralisation of *do*-support. Thus, more tasks are required to support the learners in distinguishing these two negation types, including analytic as well as holistic and more complex exercises. This would provide a basis for learners when practicing the use of negations with and without *do*-support in authentic speech situations.

6 Past Tense Formation

This chapter examines the acquisition of past tense formation, and more specifically the formation of the past simple.[55] It is the first tense used to describe past events that EFL textbooks present. In contrast to negative statements, which comprise syntactic operations, past tense formation is an exclusively morphological process. Negations include the application of syntactic rules, such as the choice of the correct form of *do* (*don't*, *doesn't*, *didn't*) or potential constituents that can be inserted (adverbs for instance, as in *I don't always get up early*). By contrast, past tense formation requires either the addition of the suffix *–ed* to the main verb or the use of strong (irregular) verbs. Since strong past tense formation underlies specific processes that cannot be defined by means of concrete rules, learners tend to store them as chunks (cf. Ellis and Larsen-Freeman 2006:565). Numerous verbs with a similar phonological shape do form their preterite forms identically, such as *sink*, *sing* or *drink*. However, there are more verbs with the same shape that follow a different ablaut pattern (*think – thought*; *bring – brought*) or that have a weak preterite (*blink – blinked*).[56] Learners of English must first learn which verbs feature weak past tense formation and which ones do not. Secondly, they must incorporate the correct form of the strong verbs.

This chapter begins with an overview of the theoretical background of past tense formation from a crosslinguistic perspective. It analyses the morphological processes involved in English and German. In addition, past tense formation is presented from a cognitive perspective by introducing major studies in L1 an L2 research. The theoretical background in the introductory section forms the basis for the empirical part of this chapter. Before analysing the learners' responses in the individual stages, the section opens with the presentation of the various learning stages and the questionnaires used for eliciting the data. The results of the empirical

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[55] In this dissertation, the term past tense refers to the preterite only, as there is no consensus as to the status of the present perfect being a tense. Kortmann (2005:120), for instance, suggests that there are only two tenses, i.e. the present and the past. He does not regard the present perfect itself as a tense due to its periphrastic formation with *have/has* and the past participle. Moreover, Kortmann argues that the present perfect refers to events that have not yet been completed (cf. 2005:120). For this reason, he considers the present perfect as a subcategory of a construction that he labels as 'perfective' (cf. Kortmann 2005:120).

[56] Although the phonological shape of verbs fails to predict the correct past tense of a verb, learners seem to rely on phonological properties for classifying strong verbs (cf. Bybee and Slobin 1982; Bybee and Moder 1983; Plag 2000; Kounatidis 2010). Thus, learning seems to comprise the urge to discover systematicity in the TL, as to be discussed in 6.1.

section contribute to the examination of textbooks in terms of their didactic potential by focusing on the input requirements and the tasks used.

6.1 L1 Past Tense Formation

English past tense formation follows systematic morphological rules and processes similar to German past tense formation. Verbs can be classified into weak and strong verbs. English uses the dental suffix *–ed*, in some cases *–t*, to express that an event took place in the past[57]. German makes use of the same process. The dental suffix *–t* expresses the preterite of regular verbs. However, as regards the past participle, the formation pattern is different. The circumfic *ge* – V_{stem} *–t* is used for weak verbs (*gesagt*), whereas verbs that feature any vowel change (umlaut) in the present tense paradigm, such as *laufen* 'walk' – *du läufst* 'you walk', take the circumfix *ge* – V_{stem} – *en* (g*e* – *lauf* – *en*). Verbs of this type form their preterite irregularly (e.g. *lief*) and do not take the dental suffix *–t,* but ablaut. Similarly, English strong verbs do not feature *–ed* either. The past tense is usually expressed by ablaut (*sing* – *sang* – *sung*). However, English strong verbs can also feature suppletive forms (*go* – *went* – *gone* or *be* – *was*/*were* - *been*), changes in the final consonant (*have* – *had*, *build* – *built*), or zero-marking (*put* – *put*). From a crosslinguistic perspective, German has the same processes for expressing the past tense, although the use of ablaut is distributed in a more diverse way due to diachronic differences (cf. Abraham 2001; Durrell 2001). Historically, ablaut formation has the same origin in both English and German, which accounts for the similarities in numerous past tense forms, as in *bringen* – *brachte* and *bring* – *brought* or *singen* – *sang* – *gesungen* and *sing* – *sang* – *sung*. However, these parallels cannot be found with all strong verbs in English and German. According to Kellerman's notion of 'psychotypology' (cf. 1983:114), similarities can constitute a possible source of errors for second language learners, as two languages can lack parallels where non-native speakers might expect them. Therefore, language-relatedness can have an impeding effect on IL development as well. R. Ellis, drawing on Kellerman (1977), concludes that learners tend to transfer more structures from their NL to the TL if they perceive that both languages share many features (cf. 2008:392). Studies that focus on related languages provide further

[57] The suffix *–ed* in its phonetic realisation depends on the phonological environment, i.e. /t/ if the preceding sound is voiceless, as in *blessed*, /d/ if it is voiced, as in *played*, and /ɪd/ if the preceding sound is a dental (e.g. *painted*).

evidence, such as Dutch and English (cf. Kellerman 1979), or Swedish, Finnish and English (cf. Ringbom 1978, 1987, 2007; Sjöholm 1979), as does research on L3 acquisition with Basque, Spanish and English (cf. Ceñoz 2001). As learners notice the similarities, they tend to transfer them into the TL, assuming that their NL rules apply to the TL. This, in turn, results in more errors. The studies provide further evidence for the impact of the learners' NL on L2 acquisition. Moreover, they complement Lado's Contrastive Analysis Hypothesis (1957), which ascribes a facilitating effect of language-relatedness on L2 acquisition. Consequently, German learners of English might commit errors due to crosslinguistic influence in past tense formation.

A special interest in how learners acquire the English past tense is visible especially in the 1970s morpheme order studies (cf. Dulay and Burt 1973, 1974a, 1974b; Bailey, Madden and Krashen 1974; Larsen-Freeman 1975, 1976a; Hakuta 1976). In the attempt to find an order of acquisition in grammar, studies were conducted in order to support the hypothesis that developmental paths were universal and not a result of transfer from the NL.[58] Their aim was, first, to prove that language learning involves innate, underlying universal principles, and, second, to prove that first and second language acquisition are not different. The studies drew on findings in L1 acquisition by Brown (1973) and de Villiers and de Villiers (1973) and applied the major findings to SLA research. All of the morpheme order studies analysed data from learners of different language backgrounds and concluded that L2 acquisition, like L1 acquisition, proceeds in a fixed order.[59] With regard to past tense formation, these studies suggested that strong preterites are acquired earlier than weak past tense forms, a position that has been maintained by recent approaches such as PT (cf. Pienemann 1998, 2008).[60] The researchers attribute the fixed order to inflectional morphology. While weak verbs feature suffixation by means of *–ed*, strong verbs require more complex morphological processes, such as ablaut. From the 1980s onwards, research has focused on cognitive and psychological reasons for the relatively early emergence of strong verbs in L1 and L2 production (cf. for example Bybee and Slobin 1982; Bybee and

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58 For a historical survey on morpheme order studies cf. Kwon 2005.

59 This hypothesis, however, has not been unchallenged. Critical reviews on a proposed natural order by Andersen (1977) and Bley-Vroman (1989) suggest that L1 and L2 acquisition are different, which has been referred to as the Fundamental Difference Hypothesis.

60 Larsen-Freeman's study (1975) is the only exception, which does not find any support for strong past tense formation being acquired earlier than weak formation.

Moder 1983; Tomasello 1988; Ellis and Larsen-Freeman 2006). The results of these studies imply that TL-specific factors, such as frequency and salience, are potential reasons for the orders of acquisition. This position contrasts with the UG notion of an innate language faculty. Frequency and salience bear more explanatory potential than universal or natural orders, especially with regard to tense marking. The two factors support the process of noticing a structure and its productive use in language (cf. Larsen-Freeman 2006:561). Frequency and salience approaches emphasise that strong verbs are learnt prior to weak ones, as they are more frequently represented in the input and more salient compared to the suffix *–ed*. This, in turn, enhances the acquisition of strong verbs. As presented in Chapter 2, type and token frequency are decisive factors for acquisition. Regular verbs have a higher type frequency, as the suffix *–ed* is more productive and can be applied to far more verbs in contrast to ablaut, which is restricted to a limited set of verbs. Numerous strong verbs, by contrast, feature a high token frequency, since they occur relatively often in speech, such as *go*, *see* or *say*. The high frequency of occurrence enables learners to store strong forms more easily (cf. Ellis and Larsen-Freeman 2006:565). As regards regular verbs, learners store the rules that govern the formation of the structure rather than storing each verb individually. Speakers only memorise the rule 'add *–ed* to the verb to form the past tense'. It should be noted that rule formation does exist for irregular verbs as well, which is an issue to be discussed later in this chapter.

The way learners form the past tense of verbs is insightful when it comes to analysing IL development. Ellis and Larsen-Freeman suggest that variability is one property of IL systems, but responses usually underlie highly specific rules at the same time (cf. 2006:561). The authors take a DST position on learning regarding IL variability as an indicator of development (cf. Ellis and Larsen-Freeman 2006:564). Additionally, U-shaped learning is viewed as one major property of the learning process, since learning is not gradual, but characterised by "sudden changes in performance" (Ellis and Larsen-Freeman 2006:566). Learners begin with highly frequent strong verbs, which co-occur with regular past tense forms. However, they begin to overgeneralise weak preterite formation and to apply it to strong verbs. This results in deviant structures, such as **goed*, **wented* or **seed* (cf. Tomasello 1988:238; Ellis and Larsen-Freeman 2006:566). According to McLaughlin (1990), errors such as **wented* or **goed* can be regarded as examples

of the transition from exemplar-based to rule-based representation (cf. 1990:123). IL systems are viewed as dynamic systems, which are sensitive to external influences such as salience and frequency. Consequently, IL systems are constantly undergoing restructuring processes, as stated by Lightbown (1985:177).

Studies on the acquisition of past tense formation exclusively take into account the development of this structure. However, preterite forms do not spontaneously emerge in the learners' responses; they rather evolve and constantly change over time (cf. Rumelhart and McClelland 1986:221). From this perspective, morpheme order studies are limited in terms of their explanatory potential, as they concentrate on numerous areas of grammar and neglect that structures emerge successively. The development of past tense formation, as any other structure, proceeds in numerous steps. In a connectionist approach[61] to the development of the target structure in L1 acquisition, Rumelhart and McClelland (1986) suggest an order of acquisition in three stages. In Stage I, learners seem perfectly able to form the preterite of a small set of verbs that they have encountered. Apparently, together with some regular verbs, these verbs are among the most frequent ones used in language, such as *go*, *see*, *think* or *take* (cf. Rumelhart and McClelland 1986:219-220). As children learn more verbs, they detect that numerous other verbs take the suffix *–ed* for referring to past events in Stage II. As a consequence, children begin regularising strong verbs, even those they have previously formed correctly. Strikingly, L1 learners treat novel and nonce verbs in this stage as weak verbs, adding the suffix *–ed* to verbs like s*plink* (cf. Rumelhart and McClelland 1986:221). More proficient speakers tend to draw on the similarity to *sink* and respond with *splank/splunk* (cf. Bybee and Slobin 1982:279). Moreover, in Stage II, learner responses feature IL variation to a higher degree, which is expressed by either regularising the target verbs (**goed*) or by double-marking (**wented*).[62] However,

[61] Connectionist approaches hold that learners store information that they extract from the language they perceive (cf. N. Ellis 2002:144). Learners allegedly form networks of interconnected nodes and, as Gass and Selinker (2008) summarise, "[l]earning takes place as the network (i.e. the learner) is able to make associations, and associations come through exposure to repeated patterns" (220). This dissertation does not explicitly take a connectionist position on SLA and language learning from these authors. They are drawn on references because they appreciate that learning involves several stages and that a learner's representation of preterite formation in one stage may differ from later stages in acquisition. This view contrasts with natural order accounts, which focus on the emergence of specific target structures while neglecting the issue of development.

[62] The authors note that the latter response type occurs later in language development. They separate Stage 2 into two substages, that is, (a) regularisation (**goed*) and (b) double-marking (**wented*) (cf. Rumelhart and McClelland 1986:221).

the authors also observe that correct forms (e.g. *went*) are never absent from learner language (cf. Rumelhart and McClelland 1986:221). Thus, deviant and target-like structures coexist.[63] This supports the claim of this dissertation that, in unstable systems, the learners' responses feature a relatively high degree of variation with a maximum in intermediate stages of learning. In the last stage, learners can differentiate between strong and weak verbs and they know which verbs require ablaut. The following table illustrates the three stages as suggested by Rumelhart and McClelland (1986):

Verb Type	Stage 1	Stage 2	Stage 3
Early Verbs	Correct	Regularized	Correct
Regular	-	Correct	Correct
Other Irregular	-	Regularized	Correct or Regularized
Novel	-	Regularized	Regularized

Table 36: Characteristics of the three stages of past tense acquisition according to Rumelhart and McClelland (1986:221)

What is questionable is whether these observations in L1 acquisition are similar to the data of this study on L2 past tense formation.

There are approaches in SLA research claiming that both L1 and L2 learners draw on analogies when forming the past tense. Bybee and Slobin (1982) suggest that acquiring the past tense involves the cognitive skill to detect similarities in the input rather than storing each strong individually. They provide evidence for analogy formation on phonological grounds (cf. Bybee and Slobin 1982:267). According to the authors, learners draw on schemas, which serve as models or prototypes for forming the past tense.

> A schema is a statement that describes the phonological properties of a morphological class (in this case, past tense). It does not relate a base form to a derived one, as a rule does, but describes only one class of forms […]. It is not a constraint which rigidly specifies what can and cannot occur, but is rather a much looser type of correlation used in organizing and accessing the lexicon.
>
> (Bybee and Slobin 1982:267)

[63] It is noteworthy that Rumelhart and McClelland suggest that correct as well as regularised forms still occur in Stage 3. The authors do not suggest any end point in acquisition, since deviant forms can still occur in Stage 3. This might be indicative of the gradual and relatively long acquisition process.

The existence of schemas is based on the question of how learners acquire the past tense. Two possible ways exist, i.e. either by rote (memorising) or by base (organising verbs into classes) (cf. McKay 1976; Bybee and Slobin 1982; Bybee and Moder 1983). There is evidence that the phonological shape affects the organisation of schemas (cf. Bybee and Slobin 1982:286). The verb *spit*, for instance, shares the onset and coda with its past tense form *spat*; they only differ in their nuclei. Verbs that are phonologically similar allegedly belong to the same group, such as *sit* and *sat*. The authors note that a vowel cannot be predicted, but described only in terms of probability of occurrence and that the relative phonological distance to a prototype can determine the product, i.e. the past tense form (cf. Bybee and Slobin 1982:286). Bybee and Moder (1983:256) provide evidence for at least one prototype that results in a predictable formation pattern in their study with adult learners. A verb with the phonological shape /sC(C) ɪ ŋ/ constitutes the prototype of such a category and is more likely to trigger the three-stage ablaut /ɪ/ - /æ/ - /ʌ/. At the core of L1 past tense formation is that children, in the process of acquiring their NL, construct schemas on which they draw when producing preterite forms.

Similar studies in L2 past tense formation adopt the notion of schemas. Plag (2000) presents a study that compares the results in Bybee and Moder (1983) with German adult learners of English in order to support the existence of schema formation in L2 learning. Plag provides evidence for the effect of prototypicality on past tense forms (2000:145). Native speakers of English (NSE) use ablaut more frequently with verbs that have /sCC/ in their onset, /ɪ/ in their nucleus and a velar nasal constant (/sCC ɪ ŋ/), as in *spling*. By contrast, adult learners of English expand this schema to /ŋk/ in coda positions (e.g. *splink*). However, Plag points out three major differences between the two target groups:

- NSE prefer /ʌ/-ablaut (*spling – splung – splung*), thus, a two-stage ablaut, whereas L2 learners predominantly use the three-stage ablaut /ɪ/-/æ/-/ʌ/ as in *spling – splang – splung* (cf. Plag 2000:145).
- The role of the stem vowel is different as to its effect on ablaut production. Verbs with the nucleus /ʌ/ in their infinitive (*skrug*) have the least effect on ablaut responses for NSE, while this finding does not apply to L2 learners (cf. Plag 2000:145).

- NSE avoid zero-marked responses (*spling – spling*; *buf – buf*), as they feel that they have to mark the past tense overtly. Conversely, L2 speakers do use zero-marking, above all, with verbs of the shape [sCC /ʌ/ obstruent], as in *skrug* or *plut* (cf. Plag 2000:145).

Plag concludes that L1 and L2 speakers draw on similar principles when forming generalisations about English past tense formation. These mostly derive from the phonological shape of the verb. Different responses might be the result of differences in the input both groups have received, on the one hand, and of cross-linguistic influence in the case of L2 learners on the other.

In a pseudolongitudinal study on past tense formation of English learners of German, Kounatidis (2010) observes a general tendency for drawing on schemas, above all in initial L2 learning (Year 9 students in their third year of learning German) and advanced stages (A-level students). The study emphasises two substantial factors for past tense formation.[64] First, the previous input affects whether learners draw on analogies in preterite formation. If students encounter a sufficient amount of verbs that feature the same ablaut type, they tend to expand this type to phonologically similar verbs. Secondly, learners also draw on ablaut patterns that exist in their NL. While native speakers of German treat nonce verbs as weak ones (*splingen – gesplingt*), English learners of German in Year 9 and 12/13 draw on schemas (*splingen – gesplungen*) regardless of their prototypicality. GSCE students in Year 11 (Stage II), however form the past tense of stereotypical verbs differently. The preference for schema formation decreases and learners create other, rather random ablaut types (*splingen – gesplongt*). In addition to that, learners in Stage II apparently have a strong preference for creating suffices that German does not permit in past tense formation (*splingen, *gesplingst, *gesplingtest*).[65] In Stage III, the relative percentage of ablaut responses increases and deviant forms, such as double-marking of the past tense, become rare. This

[64] Kounatidis (2010) analyses the formation of the past participle only. However, the results are relevant for this dissertation because this structure also requires ablaut.

[65] Kounatidis (2010) attributes this to suffix confusion, since learners use suffixes from present tense marking. As English does not make use of an inflection paradigm as diverse as German, learners find this feature particularly difficult and struggle with its acquisition. They use the same suffixes for past tense marking, which results in numerous errors. Errors of this type have not been documented in Plag (2000), implying that German learners of English do not tend to struggle with English suffixation. The Markedness Differential Hypothesis (cf. Eckman 1977) can account for the different results between German and English learners.

supports the notion of U-shaped learning. The results show that English learners of German, with increasing proficiency (and input), create schemas on the basis of analogies in past tense formation.

6.2 The Learning Stages

In contrast to the previous chapter on the acquisition of negation, a clear distinction of the learning stages is difficult for past tense formation. Learning the past tense requires understanding morphological properties of English and involves storing irregular verbs, whereas negation constitutes a syntactic process. The learners' repertoire of irregular verbs is continuously growing as students encounter more strong verbs. In negative statements, learners start with one formation type, i.e. simple negations without *do*-support, and proceed by incorporating the competing structure with *do*-support. In L2 past tense formation, however, they learn that weak and strong verbs exist and they usually prepare a list of irregulars. Therefore, identifying formulaic representations is difficult in Stage I, since all strong verbs are assumed to be stored as chunks (cf. Rumelhart and McClelland 1986). Moreover, rules for a specific ablaut type are hard to define, as the use of a particular, systematic vowel change cannot be predicted, but only described in terms of probability (cf. Bybee and Slobin 1982; Bybee and Moder 1983; Plag 2000). The /æ/-/ʌ/-ablaut, for instance, is more likely to occur with verbs of the shape /ɪŋ(k)/.This applies to verbs such as *sink*, *drink* or *sing*, but not to *bring* or *think*. Thus, for the purpose of defining the learning stages, other features and approaches must be considered. Since learners' representations change in the acquisition process (cf. McLaughlin 1990), it is plausible to suggest that, in later stages, students might use other cognitive processes than in initial learning. It is tempting to hypothesise that learners move to schematic preterite production after more input and an increasing number of strong verbs rather than reactivating stored chunks as they do in initial stages. As Bybee and Moder (1983) suggest, learners opt for systematicity due to economic reasons. They attempt to replace the chunks by rules, drawing on phonological principles that determine potential preterite forms. The empirical part of this chapter aims at analysing whether learners indeed develop schemas in L2 past tense formation and, if so, how these prototypical constructions change over time.

The classification of the learning stages used in this dissertation draws on the proposed order by Rumelhart and McClelland (1986), who also suggest a three stage acquisition of past tense formation. The categories 'regular' (weak), 'irregular' (strong) and novel were used in the analysis of the data. The highly formulaic nature of preterite formation in early learning probably leads to high accuracy rates for regular and irregular verbs. Novel verbs are likely to be treated as weak verbs by learners. Additionally, as proposed by Bybee and Moder (1983), nonce verbs in different degrees of closeness to the prototype were included. It is tempting to hypothesise that nonce verbs in Stage I trigger the suffix *–ed*, since learners reproduce the chunks they have stored in their lexicon. As Rumelhart and McClelland (1986) suggest, verbs that learners have not encountered are usually treated as regular ones. The way learners form the past tense is likely to change in the further acquisition process as learners attempt to impose regularity to language. This is expressed by the development of schemas and their expansion to novel and nonce verbs (cf. Bybee and Moder 1983; Plag 2000).

An analysis of the input shows which past tense forms were known or novel in the individual learning stages. In terms of schema formation, evidence from the input enables learners to create systematic patterns. This means that the knowledge learners have gained from the input helps to determine how they form abstract categories and schemas. Table 37 lists the known strong verbs in each stage.

	Stage I	**Stage II**	**Stage III**
n REG	26	> 26	> 26
n IRREG	29	51	63
V IRREG	be, come, do, eat, fly, forget, get, give, go, have, hear, hurt, know, make, meet, put, read, ride, run, say, see, shine, sit, speak, swim, take, teach, tell, throw	bring, buy, choose, drink, feed, find, hide, keep lay, let, lose, sell, send, sing, sleep, spend, stand, think, understand, wear, win, write	hit, leave, feel, drive, fall, hold, build, grow, ring, leave, hold, steal

Table 37: Amount of input of regular and irregular past tense verbs

In Stage I, the learners knew that English features weak and strong verbs like their NL German does. Some verbs take the suffix *–ed*, whereas others require a change of their stem vowel. The number of irregular and regular verbs in the input was

balanced, as Table 37 shows. The learners had received the same amount of input with weak and strong past tense formation. Thus, the learners were not biased with regard to the dominance of one formation type over another. As learners in Stage I usually draw on what they have memorised, they are likely to treat novel and nonce verbs as regular ones (cf. Rumelhart and McClelland 1986:221). With the increasing amount of irregular verbs in the input in Stage II, learners allegedly begin to formulate systematic schemas and overgeneralise them to phonologically similar verbs (cf. Bybee and Moder 1983; Plag 2000). This should manifest itself in an increase of errors. Learners tend to expand the schemas even to verbs that they know (e.g. *bring*, *think*). In Stage III, the error rates are expected to decrease after the restructuring of the learners' IL systems. Additionally, the introduction of the past participle might affect past tense formation, as learners increasingly draw on similarities. From a crosslinguistic perspective, numerous verbs in English and German feature the same three-stage ablaut type (*singen – sang – gesungen*, *sing – sang – sung*), which might provide more evidence to the learners for schema formation.

6.3 Past Tense Formation – Stage I

To analyse the development of IL past tense formation, a questionnaire with 30 target sentences was distributed. The learners had to use the verbs that were underlined in the target sentences, as in the following examples:

(1) Today I don't want to **play** football, because I _____ yesterday.

(2) Don't **spit**! Years ago, only stupid people _____.

The underlined verbs varied in terms of tense (simple present), aspect (present progressive) and mood (imperatives). Additionally, infinitives were included. The verbs were selected with regard to the classification by Rumelhart and McClelland (1986), however, they were partly modified. The category 'early verb' was excluded, since it only applies to first or natural language acquisition. In classroom research, determining early verbs is difficult, as the input that learners receive is designed in a specific way. The first verb in the simple past is usually BE and its respective past tense forms *was* and *were*. This is followed by weak and strong past tense formation. The strong verbs that L2 learners find in the input differ from those L1 learners encounter in natural speech. In L1 acquisition, early verbs are among

the most frequent ones used in discourse and serve a pragmatic function, i.e. satisfying a child's need to communicate about a particular topic (cf. Rumelhart and McClelland 1986:219). In the classroom, by contrast, the past tense forms depend on the textual frame, starting with *was* and *were*, followed by weak preterite formation and, finally, the successive introduction of strong verbs.

The target sentences in the Stage I questionnaire comprised eight weak and five irregular known verbs. Additionally, six novel weak verbs and five novel strong verbs were included for the purpose of detecting if learners treat known and unknown verbs differently. The novel irregular verbs featured the prototypical vowel /ɪ/ as suggested by Bybee and Moder (1983). The last group of target verbs included six nonce verbs, which were more or less close to the prototype /sC(C) ɪ ŋ(k)/. It is hypothesised that verbs that are closer to the prototype trigger more ablaut responses, while verbs with a greater distance do not.[66] Table 38 summarises the categories used in the questionnaires.

category	n	target verbs
weak known	8	play, clean, work, talk, travel, stay, walk, like
weak novel	6	shout[67], scream, plant, learn, paint, wait
strong known	5	go, speak, see, fly, read,
strong novel	5	sink, spit, think, sing, drink
nonce verbs	6	spink, bink, tig, fring, spling, pit

Table 38: List of the target verbs used in the Stage I questionnaire with their respective categories

The verbs featuring the ablaut type /ɪ/ - /æ/ (*drink* - *drank*) were considered novel ones, since the textbook had not yet introduced any of these. Thus, the use of this ablaut type with novel and nonce verbs is rather unlikely as the learners were not familiar with it. If learners, however, respond with the correct preterite form *drank*, crosslinguistic influence might be the driving force. Table 39 summarises the IL variants and their respective frequency of occurrence.

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66 As the aim of the dissertation is to detect at which point in acquisition learners begin to formulate schemas, the categories were identical in all the learning stages and only the verbs used varied from Stage I to Stage III.

67 Only those verbs whose past tense forms learners had already encountered by Stage I were considered as known ones. The learners, for instance, knew the verb *shout*, but they did not know its past tense form. The same applies to the verb *ask*.

[± ablaut]	response type	example	amount in %
[-ablaut] n=709 *90,66%*	target-like	*played, climbed, screamed*	79,54 (n=622)
	zero morpheme	*walk-{Ø}, climb-{Ø}, wait-{Ø}, learn-{Ø}*	5,24 (n=41)
	morphological error	*{waiting}-{ed}, {plants}-{ed}*	5,89 (n=46)
[+ablaut] n=73 *9,34%*	target-like	*spoke, saw, flew*	6,39 (n=50)
	orthography	*spoak, saa, flow, red*	1,79 (n=14)
	confusion	*talk → took*	0,38 (n=3)
	double-marking	*flewed, spoked, wented*	0,64 (n=5)
	semantic equivalent	*walk → went*	0,13 (n=1)

Table 39: Summary of the past tense responses in the Stage I questionnaire

The table shows that, in early stages of acquiring past tense formation, the learners opted for systematicity, i.e. weak past tense formation. This was clearly favoured over ablaut. The predominant formation pattern was V + {*-ed*}. If a specific verb and its respective past tense form was absent from their mental lexicon, the learners treated it as a weak verb.

Apart from target-like responses without ablaut, learners employed zero-marking, as in **he wait yesterday* (5,24%, n=41). This IL variant might be indicative of the difficulties learners have with the past tense in Stage I. It seems that the learners used unmarked forms for expressing past time events when encountering problems with the formation. In this case, the unmarked present tense helped the learners to avoid the morphologically marked past tense. Another frequent error type was the morphological misinterpretation of verbs in the target sentences, as in **waitinged* (5,89%, n=46). The occurrence of erroneously identified verb stems, however, was restricted to the target verbs which feature inflectional markers (the third person singular *–s* or the continuous aspect suffix *–ing*, for instance). This means that the relative percentage might have been higher if the questionnaire had featured more verbs with inflectional markers. Errors due to morphological misinterpretation are substantial for the further development of IL past tense formation. It is tempting to hypothesise that novel verbs trigger this IL variant more frequently than known ones. Morphological awareness might be linked to word recognition, which affects past tense formation.

As far as the ablaut responses are concerned, the overall amount of occurrence was considerably low in Stage I. Only 6,39% of the responses featured a correct preterite form with the ablaut; adding erroneous ablaut variants to the target-like responses raised the relative percentage of occurrence only marginally (9,34%). This shows that the learners regarded ablaut as a restricted means for forming the past tense. The least represented IL variant comprised semantic equivalents, in which learners answered with a different verb than intended by the questionnaire. Instead of using the past simple of *walk*, for instance, the learners preferred *went*. Astonishingly, responses of this type reveal the preference for a suppletive verb rather than a regular one, which would have been easier in terms of formation. However, only one response, featured this variant. One reason could be the higher salience of *went* compared to *walked*. The strong preterite is more salient than the weak form. Studies provide support for the facilitating effect of salience on acquisition (cf. N. Ellis 2005; Ellis and Larsen-Freeman 2006; Robinson and Gilabert 2007; Larsen-Freeman 2011). The learner in this case might have chosen another more salient form with a similar meaning in order to produce a comprehensible sentence.

In contrast to this IL variant, confusion with other verbs occurred as a result of phonemic similarity as well. In the case of *talk*, for instance, the onset /t/ and the coda consonant /k/ made some learners produce the phonemically similar preterite *took*. The two words are a minimal pair, differing in their nuclei /ɔ:/ and /ʊ/. The learners believed *took* to be the respective past tense form, as they considered *talk* a strong verb that requires ablaut. However, they failed in forming the appropriate past tense form, as they were misled by the phonemic similarity of these two verbs. The results also show that errors due to the violation of the TL orthography are omnipresent in L2 acquisition. As the mental lexicon grows, learners have to incorporate the target-like past tense form into their IL systems as well as its correct spelling. Learners struggle with the detection of any phoneme-grapheme-relationship.

Moreover, instances of double-marking occurred, as in **flewed*, **spoked* or **wented*. However, the number of responses was considerably low (n=5, 0,64%). Nevertheless, a brief analysis of this IL variant is essential for the further data sets in Stage II and III. Double-marking in responses is not unusual and were also documented in the previous chapter on IL negation (**he doesn't goes*). Responses

of this type have also been accounted for in previous research on other areas of grammar (cf. Rumelhart and McClelland 1986; Tomasello and Herron 1988; Diessel 2013). This is the result of using both TL formation patterns for the past tense. This IL variant might be indicative of the dominance of weak formation in the learners' IL systems. Since the learners had stored the strong preterite forms in their mental lexicon, they additionally used the suffix *–ed*, signifying the past tense. According to L2 research (e.g. Rumelhart and McClelland 1986), instances of double-marking are likely to increase in the further acquisition process.

At this point, a more precise analysis of the IL variants requires a separate discussion of weak and strong verbs, since Table 39 does not distinguish between the two categories. It is highly probable that some responses occur more frequently with weak verbs, whereas others are limited to strong verbs. Furthermore, there might be a difference between known and novel verbs. The high number of regular formation might be a consequence of the questionnaire design, since target sentences comprised only five unknown irregular verbs in contrast to fourteen regular ones. According to Rumelhart and McClelland, learners tend totreat novel verbs as regular ones and avoid the use of ablaut if they do not recognise a verb (cf. 1986:221). Moreover, the classification of the responses as 'target-like' or 'deviant' depends on the target verbs. Ablaut, for instance, is target-like only with strong verbs. A separate analysis of the individual verb categories contributes to a more precise interpretation of the results.

6.3.1 Weak Verbs

The weak verbs in the target sentences varied in terms of tense, aspect, mood and phonological shape. The following figure presents the various types of responses and their respective frequency of occurrence. The two categories 'regular known' and 'regular novel' are illustrated separately in order to determine whether the knowledge of a verb affected the formation of the preterite.

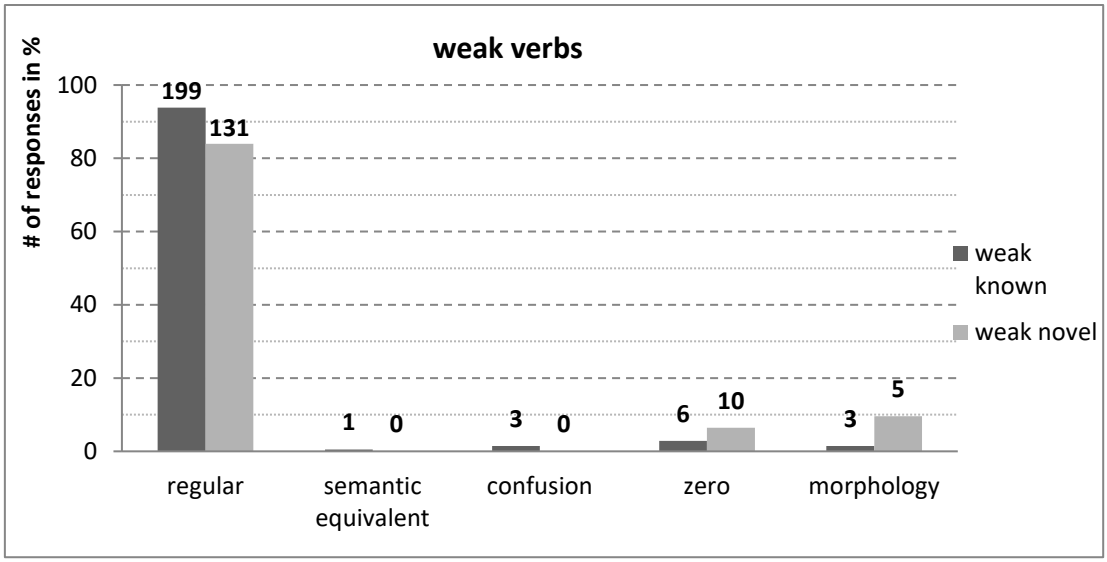

Figure 17: Response types in regular verbs and their respective frequency of occurrence

The data support the first observations in the previous section that regular past tense formation is the favoured pattern in Stage I. The learners rejected ablaut as a means for forming the preterite. Even the deviant responses did not feature any vowel change. The IL variants included morphological misinterpretation, confusion with other verbs or zero-marking. In general, the results show that the learners had incorporated *–ed* as the suffix expressing the past tense into their IL systems. Novel verbs, too, attracted the weak formation pattern. Thus, learners obviously opt for regular past tense formation whenever they encounter an unknown verb. As discussed in 6.1, learners apparently store strong verbs as chunks in their mental lexicon like new words. These chunks form networks of the type *go – went* or *fly – flew*. When learners have to form the preterite of an unknown verb, they retrieve the information from their mental lexicon. Learners use ablaut only if the particular verb is stored in their IL system with its respective past tense form. Otherwise, they are more likely to draw on weak formation by using the suffix *–ed.* The results show that learners memorise strong preterites and rely on these chunks in initial stages, as reflected by the absence of ablaut responses with novel verbs.[68]

Although the data highlight a clear dominance of target-like forms over deviant ones, the responses reveal a slight, but significant difference between

[68] One point in question is if novel verbs were treated like regular ones due to this exclusion procedure or whether the phonological shape of the target verbs had an effect trigger the responses. All the novel regular verbs featured long vowels or diphthongs, which take ablaut less frequently. It remains unclear if the inclusion of more verbs with /ɪ/, such as *link* or *blink*, would have triggered more ablaut responses.

known and novel verbs. While the first triggered more correct responses, the latter caused more errors as the error rates show. The relative percentage of zero-marked forms and morphological misinterpretation was higher with novel verbs than with known ones. The rates of zero-marking were 2,83% with known verbs and 6,41% with novel verbs. In 9,42% of the responses with the novel verbs, the learners erroneously analysed the verb stem, while the relative percentage with known verbs was significantly lower (1,42%). This provides evidence for the claim that novelty is a potential error source. If learners fail to establish a form-meaning relationship, they are more likely to analyse the grammatical markers incorrectly. Obviously, the learners used the entire word, since they were unaware of the suffix in the target verb.[69] In *My mother plants beautiful flowers*, for instance, the learners were not able to analyse the target verb correctly as to its morphemes. The suffix *–s*, signifying the third person singular ({*plant*}-{*s*}), was erroneously analysed as a part of the verb stem (*{*plants*}). The learners added the past tense marker *–ed* to the incorrectly identified stem and created the preterite **plantsed*. The occurrence of these responses can be attributed to the lack of morphological awareness, which obviously is linked to word recognition.

Finding an explanation for zero-marked forms, as in **he wait yesterday* or **I scream last year*, is more challenging. It is noteworthy that this IL variant comprised instances of complete zero-marking, i.e. the deletion of suffixes in the target verbs (*waiting* - **he wait yesterday*), and the use of the whole inflected target verb without adding the past tense marker *–ed* (**he waiting yesterday*). This IL variant might reflect the learners' struggle with past tense formation in general. The previous input beared relatively few instances of zero-marking, e.g. *put* and *hurt*. However, both the token frequency of these verbs and the type frequency of zero-marked preterites are relatively low. Therefore, there is only weak evidence for claiming that learners have established zero-marking as a schema for past tense formation. Plag also documents a high number of zero-marked responses in his study; however, they are restricted to verbs with /ʌ/ in their nucleus, /(s)CC/ in their onset and an obstruent in their coda, as in *scrug*, *truff* (cf. 2000:145). Verbs with this phonological shape apparently trigger zero-marking more frequently than other

[69] The finding supports the claim of the Cognition Hypothesis that the more complex tasks require more cognitive skills from the learners (cf. Robinson and Gilabert 2007:162). Two operations were required by the questionnaire. First, learners had to detect the meaning of a word, and second, to analyse its grammatical properties. The results show that learners were not able to accomplish both tasks, which resulted in errors due to the erroneous analysis of the target verbs.

verbs. The verbs used in the questionnaire, however, did not feature this phonological shape. All the novel verbs had tense vowels (*scream*, *learn*, *plant*) or a diphthong (*shout*, *paint*, *wait*) and were relatively distant to the back open vowel /ʌ/. Consequently, phonological reasons cannot be regarded as a potential trigger for zero-marking. It seems more plausible that the occurrence of zero-marked forms is affected by the knowledge of a verb. Novel verbs trigger unmarked forms more frequently than known verbs as Figure 17 shows.

6.3.2 Strong and Nonce Verbs

Strong and nonce verbs yielded different responses than weak verbs. The following figure illustrates the individual IL variants and their respective frequency of occurrence:

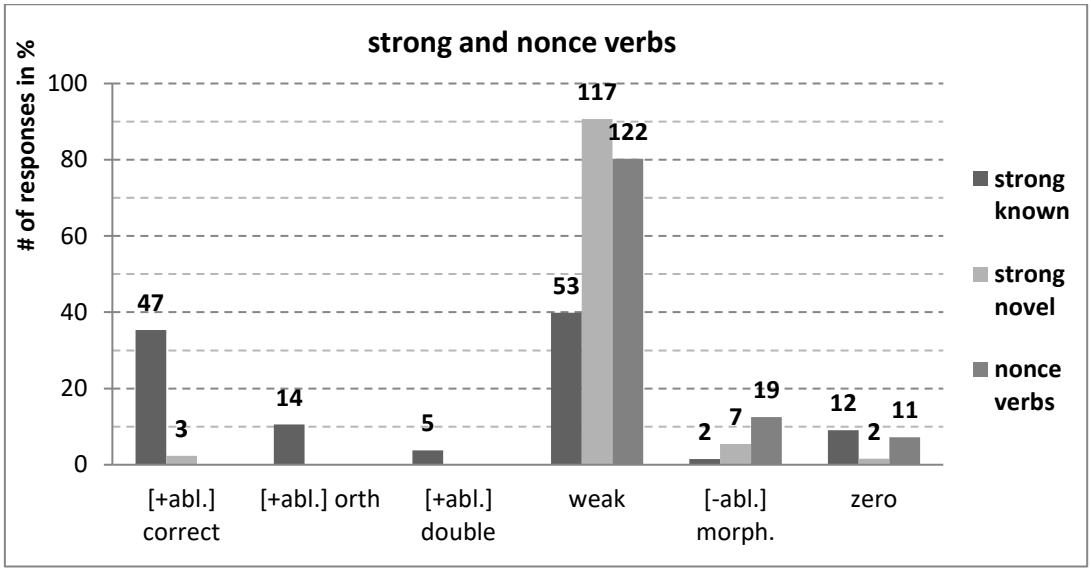

Figure 18: Response types in irregular and nonce verbs and their respective frequency of occurrence

The figure shows that the learners expanded regular past tense formation to strong verbs. The number of ablaut responses, including incorrect ones, for known strong verbs was unexpectedly low with 49,62% of all responses (66 in 133 responses). This implies that the learners used both weak and strong formation to the same extent. The relative percentage of target-like responses was even lower (35,34%). The hypothesis that learners in early stages strongly draw on previously stored chunks would predict higher scores, as irregular verbs are usually memorised initially. The results in the previous sections demonstrated that stored chunks can be reproduced more easily (cf. McLaughlin 1990; N. Ellis 2005). Thus, more ablaut

responses should have occurred.[70] Conversely, the low amount of ablaut responses for novel strong and nonce verbs coincides with the hypothesis that learners only apply ablaut to those verbs they have stored in their mental lexicon. Novel and nonce verbs are treated as regular verbs.

The results suggest that learners struggle with strong verbs in general, even if they recognise them. The category 'strong known' featured the highest number of IL variants as Table 40 shows.

	irregular known	**irregular novel**	**nonce verbs**
IL#1	[+abl.] correct *spoke*	[+abl.] correct *drank*, *sang*	-
IL#2	[+abl.] orthography **spook*, **flow*,* *red*	-	-
IL#3	[+abl.] double-marking **wented*, **spoked*	-	-
IL#4	[-abl.] regularised **goed, *speaked*	[-abl.] regularised **drinked,* *singed*	[-abl.] regularised *?spinked, *?binked*
IL#5	[-abl.] morphology **readsed*	[-abl.] morphology **singsed*	[-abl.] morphology **splingsed*, **pitsed*
IL#6	[-abl.] zero-marking **see*, **fly*	[-abl.] zero-marking **sing*	[-abl.] zero-marking *?spink, *?bink
n_{IL}	**6**	**4**	**3**

Table 40: Number of IL variants for strong known, strong novel and nonce verbs

On the one hand, committing fewer errors with novel or nonce verbs is normal, as learners use regular past tense formation. This results in a lower error rate and fewer IL variants. On the other hand, more IL variants imply the learners' struggle with strong past tense formation. Only half of the learners in Stage I could reproduce irregular verbs in a sentence completion task.[71] Some of the learners knew the past

[70] The accuracy rates for the verbs *go* (*went*: 66,7%) and *see* (*saw*: 42,3%) were higher than for the other strong verbs (*flew*: 24%; *spoke*: 22,2%; *read*: 21,4%). Interestingly, these two verbs are represented in the list of early verbs suggested by Rumelhart and McClelland (cf. 1986:219). L1 learners produce them earlier in speech than other verbs. The same appears to apply to L2 learners.

[71] An issue of interest is whether a different task type would have yielded different results. Completing a table, for instance, approximates the way German school children learn strong verbs. This might have had caused fewer error rates, since learners would not have to extract the verb from the context, analyse it as to its inflectional properties and form the past tense. Conversely, a more complex narrative task might have triggered more errors, since learners must draw on numerous domains of their IL system (cf. Robinson and Gilabert 2007:162). There is no evidence for this suggestion, as only sentence completion tasks were used.

tense, but failed to spell it correctly, labelled as '[+abl.] orthography'. Another group of students knew the form, but additionally used the past tense marker *–ed* ([+abl.] double-marking). Others had difficulties with regular past tense formation (morphological misinterpretation and zero-marking). All these IL variants reflect the difficulties learners have with strong past tense formation.

As argued in the previous section, responses featuring an erroneous analysis of the inflectional properties (**singsed* as a result of the target form *sings*) are more probable if learners encounter novel verbs. The data in Figure 18 indicate that known verbs were less prone to morphological misinterpretation (1,5%). Novel and nonce verbs were treated alike by the learners, as both categories featured verbs to which learners could not ascribe any semantic content. As a consequence, verbs of these classes were erroneously analysed more frequently. The error rate with novel verbs (5,43%) was lower than with nonce verbs (12,5%). However, this difference requires careful treatment, as the target sentences in the questionnaire for the latter group featured more inflected verbs. The results for the categories 'strong novel' and even 'strong known' might have been different if more inflected verbs had been included. In the group of novel strong verbs, by contrast, only one verb featured an inflectional marker (*sings*). Novel irregular verbs still elicited more errors than known irregular verbs (1,5%), which also comprised one instance of inflection in the target sentence. This implies that there is some support for the hypothesis that novel verbs prompt more errors, since identical conditions (identical number of inflected target verbs) seem to cause different rates (more instances of misinterpretation in novel verbs). However, further data are required for more valid results.

Strikingly, IL variants with ablaut occurred with the target verbs *sing* and *drink*. The number of responses, however, was considerably low (n=3; 2,33%). Attributing these responses to evolving schemas is rather unlikely as the learners had not had enough input that might have supported the formation of prototypical structures by Stage I. It seems more plausible to draw on other explanations for the occurrence of ablaut forms, such as crosslinguistic influence. Positive transfer is worth a consideration, as the verbs *sing* and *drink* form their past tense identically in English and German. They feature the three-stage ablaut in both languages, as

the following table[72] shows, and, from a diachronic perspective, belong to the same ablaut group (cf. Durrell 2001).[73]

	Infinitive	**Preterite**	**Past Participle**[74]
English	sing / drink	sang / drank	sung / drunk
German	singen / trinken	sang / trank	gesungen / getrunken
Vowel	**/ɪ/**	**/æ/ - /a/**	**/ʌ/ - /ʊ/**

Table 41: Past tense forms of *sing* and *drink* in English and German

Language-relatedness, which comprises lexical and grammatical similarities between languages and prompts positive transfer, is more likely to be the reason for the responses. The learners, either consciously or unconsciously, opted for similarities between languages (cf. Ringbom 2007:1).

However, support for positive transfer is rather weak. First of all, the similarity in ablaut forms applies to verbs of different ablaut groups, such as *think* and *denken* or *see* and *sehen*. The group of novel strong verbs comprised cognates in terms of meaning and ablaut group, with *spit* being the only exception. The ablaut pattern of these verbs is identical in German and English, as the following table illustrates.

Infinitive	**Preterite**	**Past Participle**	**Stem Vowel**
sink	sank	sunk	/ɪ/ - /æ/ - /ʌ/
sinken	sank	gesunken	/ɪ/ - /a/ - /ʊ/
think	thought	thought	/ɪ/ - /ɔ:/ - /ɔ:/
denken	dachte	gedacht	/e/ - /a/ - /a/
sing	sang	sung	/ɪ/ - /æ/ - /ʌ/
singen	sang	gesungen	/ɪ/ - /a/ - /ʊ/
drink	drank	drunk	/ɪ/ - /æ/ - /ʌ/
trinken	trank	getrunken	/ɪ/ - /a/ - /ʊ/

Table 42: Comparative table of the ablaut pattern in English and German with cognates

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72 The table also includes the past participle, which was not introduced in Stage I.

73 The only deviation in the past tense form addresses the different pronunciation in English and German. However, the vowel graphemes in both languages are identical. This similarity is more likely to trigger crosslinguistic influence (cf. Odlin 2005; Ringbom 2007).

74 It should be noted that, at this point, the past participle had not been introduced.

Although the target sentences included four cognate verbs, ablaut responses were restricted to *sing* and *drink* only. In the case of *think* and *sink*, ablaut responses were completely absent. This finding does not correlate with the concept of positive transfer. At least a few ablaut responses for all four verbs should have occurred. Other reasons must be considered in order to explain the limited use of ablaut.

Input approaches can account for the responses. Ellis and Larsen-Freeman, drawing on Bybee (1995) and Bybee and Hopper (2001), state that irregular verbs and idioms have a higher token frequency and can be stored more easily (cf. 2006:565). At this stage, the learners had had only a limited amount of input with strong verbs. As the students in the classroom had experienced weak verbs more frequently, due to the high type frequency, they obviously preferred regular past tense formation. The input provided to the learners lacked the information about ablaut as one key characteristic of the English past tense. Consequently, the learners must have been unable to deduce any parallels between English and German past tense formation. The results show that, at this stage, positive crosslinguistic transfer is less likely to occur, since it necessitates more instances of identical ablaut patterns between the learners' NL and TL.

The results of the Stage I questionnaire neither reject the existence of schemas, as the amount of input was too low, nor do they provide support for the development of prototypical categories. In Plag (2000), the target group consisted of rather proficient L2 speakers of English, who had had much more exposure to the TL and strong past tense formation. This is advantageous as concerns the detection of linguistic processes and phenomena in the TL. In contrast to that, the repertoire of verbs of the students in this dissertation comprised 26 irregular verbs with a varying type and token frequency. The low number of verbs with diverse ablaut patterns was clearly insufficient for establishing schemas. In order to create a system with prototypes, learners need more input. In addition to that, the lack of knowledge about the past participle, which provides more evidence for learners concerning similar formation patterns in English and German, also could have had an effect on the responses. The existence of a third form might support the learners in detecting more crosslinguistic resemblances between their NL and the TL. This might stimulate the learners in creating schemas. Consequently, the results in Stage II and III are more promising with regard to the potential development of schemas.

An increasing amount of input should help the learners to impose systematicity to English past tense formation.

The results show that schemas had not yet evolved. The learners used the evidence they had found in the input. In Stage I, the input provided instances of preterite forms with the dental suffix *–ed*, except for a small set of verbs with ablaut. The results imply that learners treat novel strong verbs as weak verbs rather than drawing on analogies in terms of phonology, whenever they encounter verbs they have not stored in their mental lexicon. Furthermore, the limited amount of input inhibits crosslinguistic influence, since instances of parallels between English and German are relatively rare. Only a small number of the learners had discovered the similarities between their NL and the TL. The findings provide evidence that students tend to expand regular formation to most of the verbs and to draw on exemplars in initial stages of learning. In order to form systematic categories, learners need frequently occurring structures and a sufficient amount of input.

6.4 Development of IL Past Tense Formation

The development of past tense formation is essential for identifying restructuring processes. The following figure illustrates the learning curves for the individual categories, except for nonce verbs, since they do not feature any correct preterite form.

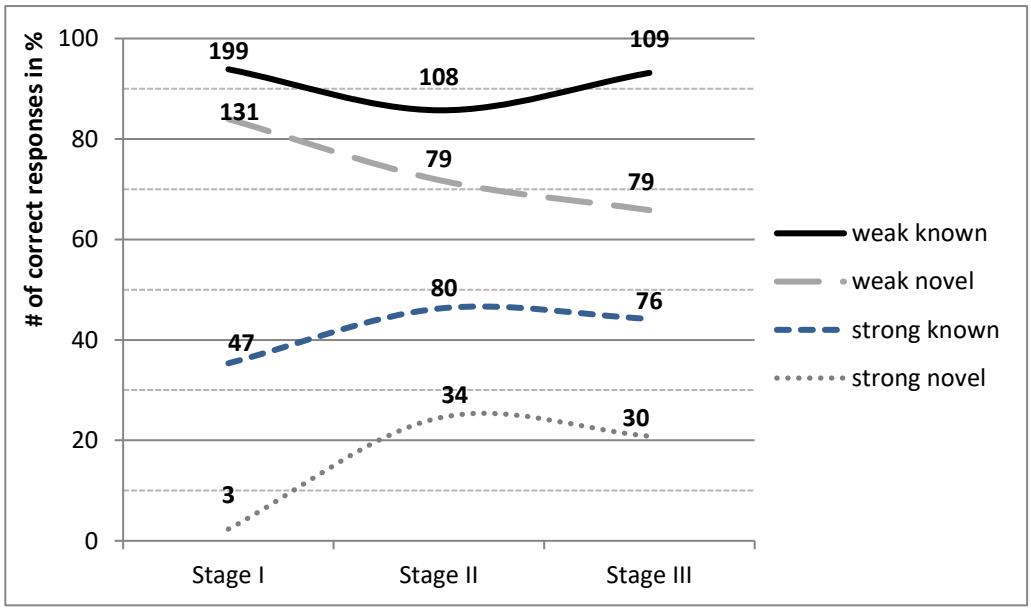

Figure 19: Development of target-like responses (not including erroneously analysed verbs and instances of double-marking)

Initially, the graphs do not provide strong support for U-shaped learning in the acquisition of past tense formation, except for the curve for weak known verbs, which exhibits a decrease in Stage II and an increase in Stage III. However, the data cannot be regarded as counterevidence to the previously stated hypothesis that U-shaped learning is an integral part of the foreign language classroom. It seems more plausible that restructuring takes place in a more subtle way. As a result, a closer look at the IL variants is necessary, since a solely quantitative analysis of the accuracy rates fails to account for restructuring processes. The graphs show that the learners committed more errors in Stage III. Detecting the error sources and their respective relative percentages contributes to a more precise analysis and might provide evidence for restructuring processes in the development of IL past tense formation. As the aim of this chapter is to find evidence for the development of schemas, ablaut responses are of particular interest. Figure 20 illustrates the development of ablaut in the individual categories.

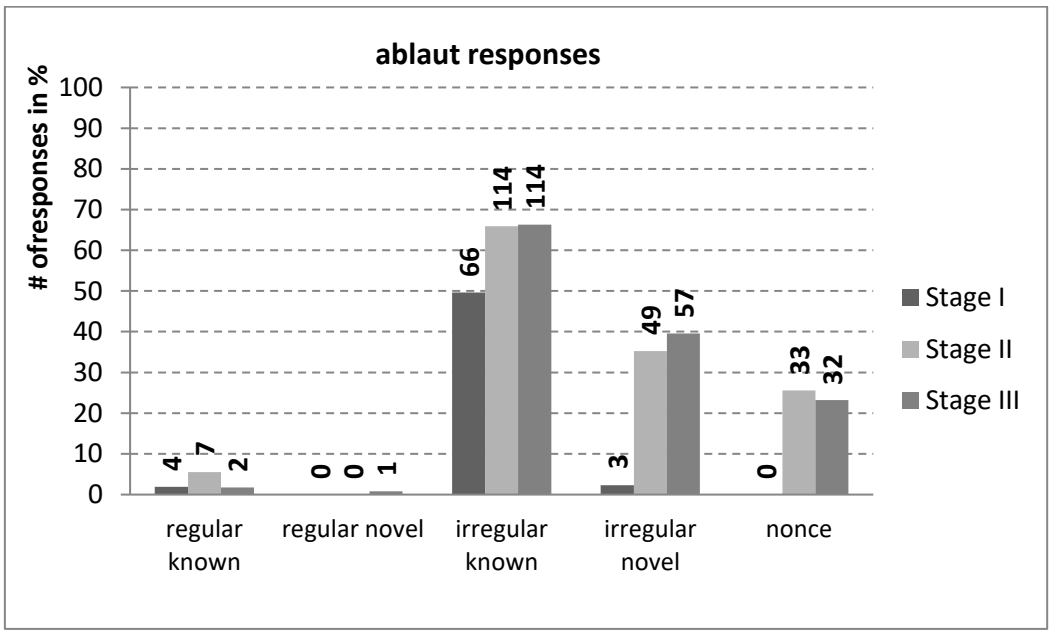

Figure 20: Development of the number of ablaut responses

The figure clearly reflects an increase of ablaut responses from Stage II onwards for strong verbs, both known and novel ones, and nonce verbs. In Stage I, nonce verbs did not yield any ablaut response, and novel irregular verbs featured only 3 ablaut responses (2,33%). However, the responses in Stage II and III mirror a rapid increase of ablaut with novel irregular verbs (*sink*, *steal*, *ring*, *bring*, *grow*, *spit*),

which triggered ablaut responses in 35,25% of the cases (n=49) in Stage II and 39,25% (n=57) in Stage III. The number of ablaut responses for nonce verbs was slightly lower (Stage II: 25,58%, n=33; Stage III: 23,19%, n=32). The learners increasingly began to use ablaut as a means of past tense formation. In Stage I, learners were hesitant about strong preterite formation, which even affected known strong verbs. This became evident in the strikingly low scores. Less than 50% of the responses featured the required vowel change and, for novel and nonce verbs, learners in Stage I preferred weak past tense formation. A change in the knowledge representation was visible. While the learners in Stage I drew on the chunks in their mental lexicon, they expanded ablaut formation to unknown verbs in later stages. This reflects the transition from exemplar-based representation to the application of rules. This shift in the level of representation can be considered an indicator of restructuring, even though the learning curves are not U-shaped. Attributing the high increase of ablaut responses to the emergence of schemas seems plausible. The learners in intermediate and more advanced stages applied ablaut to both novel and nonce verbs. The occurrence of ablaut with the nonce verbs in the questionnaire especially provides evidence for the development of schemas, as the target verbs featured the prototypical shape as defined by Bybee and Moder (1983). Learners treated verbs that were closer to the prototype /sCC ɪ ŋ(k)/ more frequently as strong verbs by ascribing to them the ablaut pattern /ɪ/ - /æ/ as in *spling – splang*. The data support the hypothesis that schemas gradually evolve. While learners use ablaut for novel strong verbs that feature the prototypical shape, they reject ablaut with novel regular ones that are relatively distant to the prototype. Therefore, they seem to draw on strategies that help them in detecting which verbs require the suffix *–ed* and which ones take ablaut. The novel regulars in the questionnaires (*yawn*, *mark*, *plant*, *shout*, *ask*) were different in terms of their stem vowel. They either featured a tense vowel or a diphthong, whereas most of the strong verbs that learners had been exposed to in this data set had either a lax vowel (predominantly /ɪ/ or /ʊ/), a different tense vowel (/i:/ as in *feel* and *meet* or /ɔ:/ as in *fall*) or another diphthong (/aɪ/ as in *find* or *fly* and /əʊ/ as in *grow*). Even if there were strong verbs with the same phonological properties as the novel regular ones in this questionnaire, the learners had not had enough exposure to them for deducing any systematic rules. The responses might be indicative of the influence of the phonological shape on L2 past tense formation. Verbs that are too distant from the prototypical structure are

treated as regular ones by learners. Conversely, if a novel verb is similar to a relatively frequent strong verb, learners tend to form its past tense accordingly.

In order to detect more precisely how learners form the preterite, a closer look at the individual verb categories is necessary. This facilitates the analysis of the learners' IL development and the rules that learners create and reject in the course of acquisition.

6.4.1 Weak Verbs

As Figure 20 merely shows that learners reject ablaut for known and novel weak verbs, it is essential to identify the IL variants in the learners' responses. The produced preterite forms can be classified into six IL variants, which are similar to Stage I, i.e. (1) weak formation with the suffix *–ed*; (2) morphological errors (**plantsed*); (3) semantic alternatives, comprising the use of negative statements with *didn't*; (4) zero-marking (**I go yesterday*); (5) a confusion with irregular verbs (*took* instead of *talked*); and (6) ablaut. Figure 21 illustrates the IL variants for the category 'weak known' and their respective frequency of occurrence from Stage I to III; Figure 22 shows the results for the category 'weak novel'.

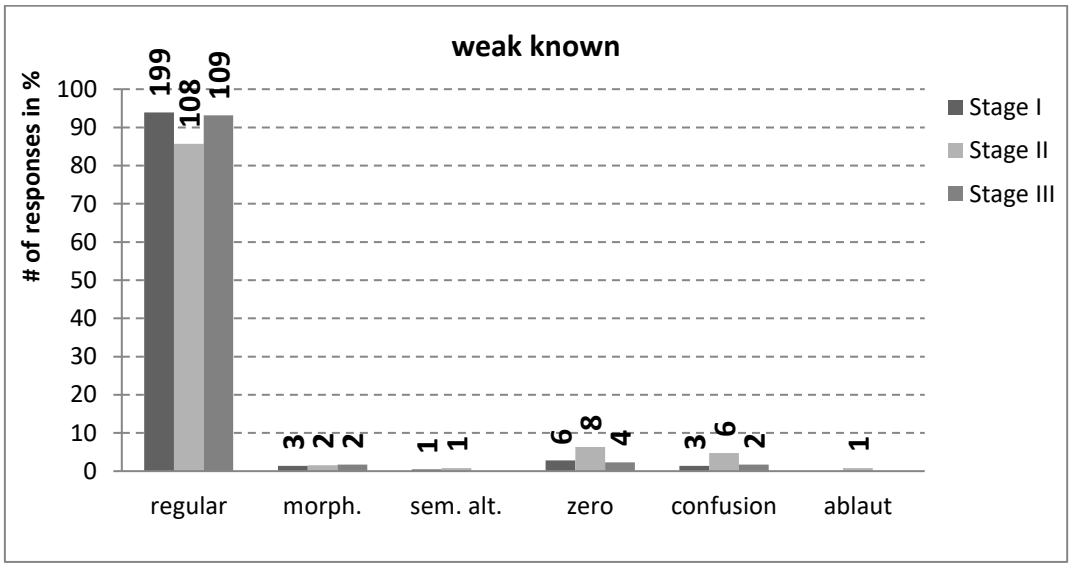

Figure 21: Development of the IL variants for known weak verbs[75]

[75] Abbreviation of IL variants: (1) morph = morphological error; (2) sem. alt. = semantic alternative; (3) zero = zero-marked forms

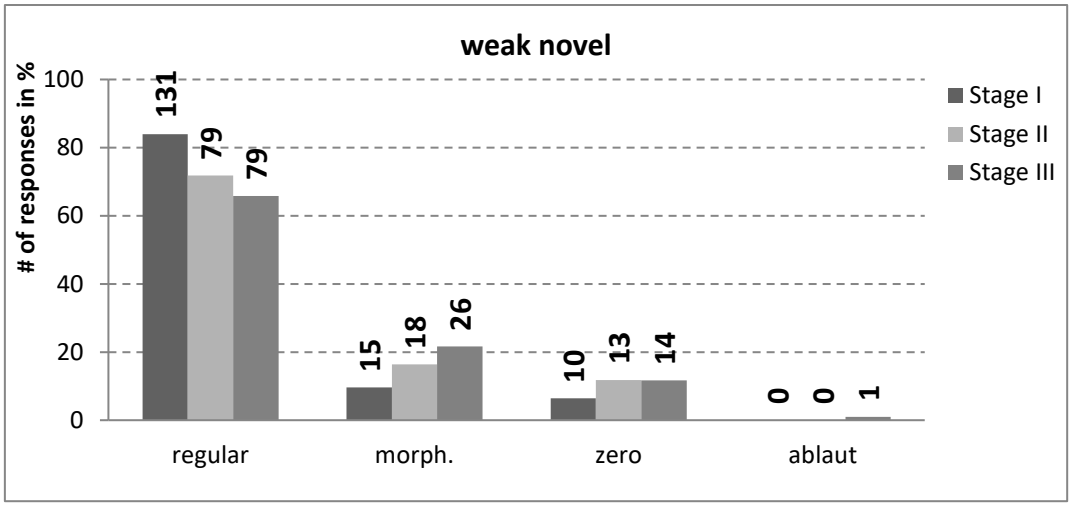

Figure 22: Development of the IL variants for novel weak verbs

The figures clearly illustrate that regular past tense formation was the favoured pattern for regular verbs, even for those ones which the learners did not know. As previously suggested, this can be attributed to the distant phonological shape of the target verbs to the prototype /sCC ɪ ŋ(k)/. The type frequency of weak preterite forms also supports the rejection of ablaut. Since forms with *–ed* were more frequently represented in the input than instances of ablaut, the learners treated novel verbs as weak ones. This was the case in spite of the high token frequency of strong verbs (cf. Ellis and Larsen-Freeman 2006:565; Ellis and Ferreira-Junior 2009:371). Irregular and nonce verbs,, by contrast prompt more ablaut responses in Stage II and III (to be discussed in 6.4.2).

The figures illustrate that weak formation slightly decreased in Stage II. This decline was followed by an increase in Stage III again. Interestingly, all the six IL variants, as illustrated in Figure 21, occurred in Stage II, however, with known verbs only. Novel verbs displayed fewer IL variants. The increase in the number of error types coincided with a decrease of the accuracy rates. Since the learners responded in more diverse ways, target-like production was negatively affected. This might also be indicative of the chaos in the learners' IL systems and the continuous transition of knowledge representation, as learners in the process of restructuring tend to produce more errors (cf. Larsen-Freeman 1997). The increase in target-like performance in Stage III reflects the overall stabilisation with regard to weak past tense formation, as more than 90% of the responses were correct.

The analysis of novel weak verbs is more problematic, as an increase in the amount of correct forms is not observable in Figure 22. The results show that target-

like forms were constantly in decline, whereas deviant forms expanded. Simultaneously, the error types became more diverse as reflected by the higher number of IL variants. This mirrors the difficulties with preterite formation for novel verbs. The learners were capable of forming the past tense of verbs that they knew, while new verbs obviously caused problems. Zero-marked forms occurred more frequently with novel verbs than with known verbs. As suggested in 6.3, learners apparently prefer the use of zero-marking if they lack the respective past tense form of a verb. An analysis of the distribution of zero-marking among the individual novel verbs shows that the learners opted for this IL variant with completely unknown verbs. While the students used the target-like formation with the verbs *shout* and *ask*, which they had already encountered in the present tense, they employed zero-marking with verbs that had been absent from the input (*yawn*, *mark*, *plant*).

The second dominant IL variant comprised morphological errors, which occurred more frequently with novel verbs than with known verbs (novel verbs: Stage II 16,36%, Stage III 21,67%; known verbs: Stage II 1,59%, Stage III 1,71%). The accuracy rates in Stage II and III decreased as errors due to the erroneous analysis of the target verb became more prominent. The learners failed to analyse the suffixes adequately and added the past tense marker *–ed* to the target verb as examples (3) and (4) show.

(3) {yawn}-{ing} → {yawn}-{ed}
*{yawning} → *{yawning}-{ed}

(4) {plant}-{s} → {plant}-{ed}
*{plants} → *{plants}-{ed}

The results can be considered as more evidence for the theory that the learners' morphological awareness is influenced by the recognition of a word. Students seem to be unable to identify inflectional markers if they have not encountered a word, as already discussed previously. The results imply that morphological errors tend to be quite persistent, since they occur even with increasing proficiency. Apparently, detecting the appropriate past tense form requires too much cognitive effort from learners. The operation includes (a) analysing the verb in terms of its inflectional properties, (b) processing it for meaning, (c) retrieving from the memory whether it is weak or strong and, finally, (d) forming its preterite respectively. Since all these components of past tense formation constitute a rather

complex process, learners seem to struggle with novel verbs. This results in the emergence of incorrectly identified verbs. It is tempting to hypothesise that these errors will constantly decrease with increasing proficiency. The point at which errors of this type disappear is an issue beyond the scope of this thesis. Further research over a longer period of time is necessary for detecting when learners are proficient enough to analyse novel verbs in terms of their morphological properties.

6.4.2 Strong and Nonce Verbs

As the data in Figure 20 presented, the learners in Stage II increasingly began to use ablaut for strong verbs, both known and novel ones. An analysis of the responses with novel and nonce verbs reveals that weak past tense formation with prototypical verbs was successively replaced by ablaut.

	irregular novel		**nonce verbs**	
	weak	***ablaut***	***weak***	***ablaut***
Stage I	97,67%	2,33%	100%	-
Stage II	65,47%	35,25%	74,42%	25,58%
Stage III	60,41%	39,58%	76,81%	23,19%

Table 43: Frequency of occurrence of weak past tense formation and ablaut for novel strong and nonce verbs in %

Moreover, the learning curves in Figure 19 imply that the learners found strong verbs particularly difficult, since the accuracy rates remained at a relatively low level throughout the period of data elicitation. The following figures reflect the relative frequency of occurrence of the individual IL variants for the categories ‘known strong verbs’, ‘novel strong verbs’ and ‘nonce verbs’.

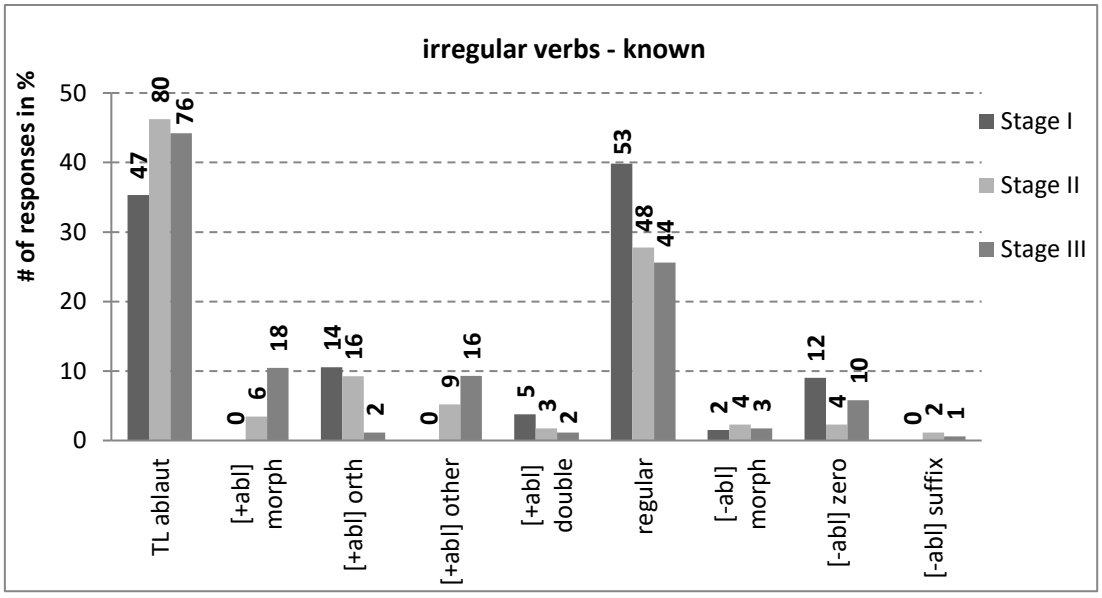

Figure 23: Development of the IL variants for known irregular verbs[76]

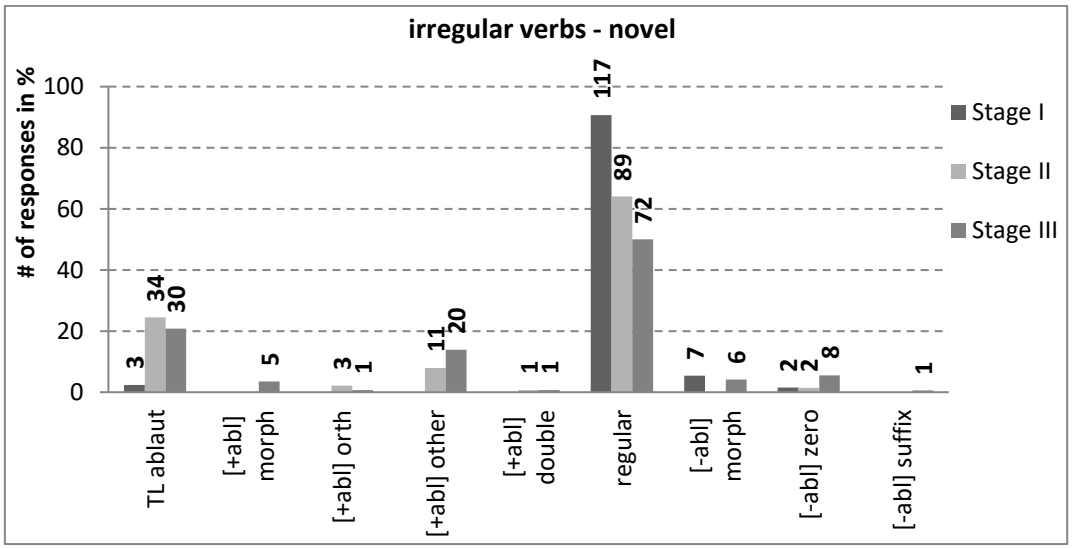

Figure 24: Development of the IL variants for novel irregular verbs

[76] Abbreviations of IL variants: (1) TL ablaut: target-like ablaut; (2) [+abl] morph: morphological error in ablaut response (**he sangs*); (3) [+abl] orth: spelling mistake (*he flew* → **flue*); (4) [+abl] other: alternative ablaut (**he brang*); (5) [+abl] double: double-marking (**he sanged*); (6) [-abl] morph: error in morphology without ablaut (**he singsed*); (7) [-abl] zero: zero-marked responses (**he sing*); (8) [-abl] suffix: other inflectional marker (**he singing*).

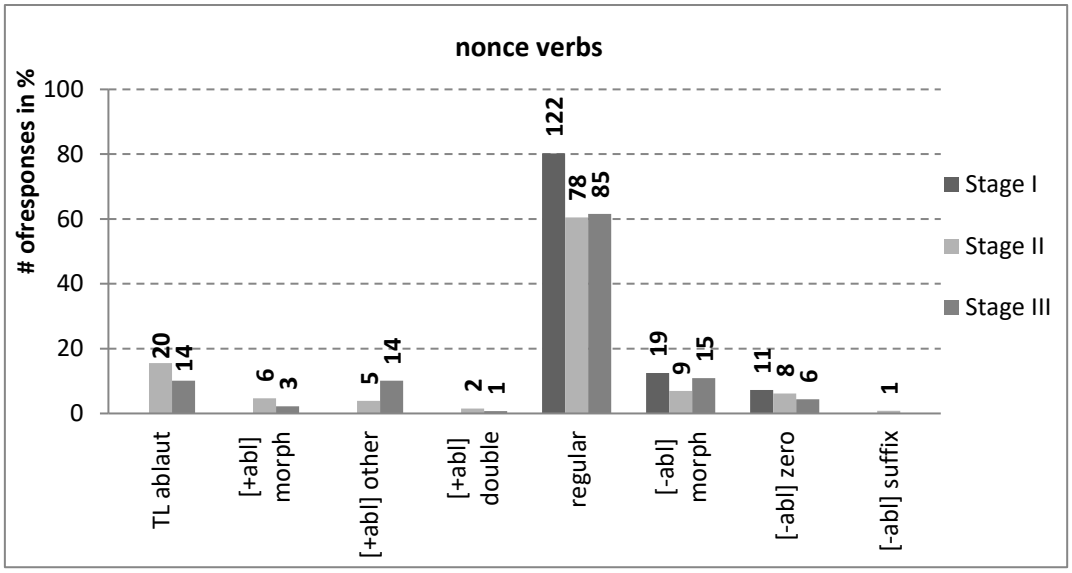

Figure 25: Development of the IL variants for nonce verbs

The decrease of spelling mistakes with known verbs in Figure 23 reflects the influence of frequency and use. In Stage I, the missing phoneme-grapheme relationship caused problems for the learners. The results show that constantly encountering the verbs in the input improves the learners' orthography. Frequency can also account for the high number of ablaut responses with known verbs in contrast to novel ones. The rate of ablaut responses with known strong verbs in Stage II reached 65,9% and 66,28% in Stage III, whereas it was considerably lower with novel strong verbs (Stage II: 35,25%, Stage III: 39,58%) and nonce verbs (Stage II: 25,58%, Stage III: 23,19%).

Although the results provide only weak support for U-shaped learning, restructuring does occur. The rapid increase of ablaut responses reflects that the learners increasingly began to form the preterite of verbs by drawing on analogies to phonologically similar ones. Simultaneously, the amount of weak formation for all the three verb types decreased in Stage III. It seems as if the learners in Stage I had retrieved the information about the formation pattern of a verb from their memory in order to detect whether a verb is weak or strong. As a result, the learners, in initial stages, drew on weak formation for novel and nonce verbs, as they had not encountered any of the verbs. The decline of weak formation can be seen as evidence for the transition from exemplar-based to schema-based representation. The results show that ablaut becomes more prominent and, to some extent, productive, as in the case of novel verbs that resemble the prototypical shape /sC(C) ɪ ŋ(k)/.

Furthermore, the IL variant ‘other ablaut’ evolved, which refers to ablaut types different from the target-like one, such as *think* - **thonk*. This error type is crucial, since it serves as support for the hypotheses that schemas gradually evolve in learner language. The learners apparently considered vowel change as a means for past tense formation; however, they employed a deviant ablaut type. The development of different alternatives is illustrated in Figure 26; Table 44 displays examples of the individual ablaut types.

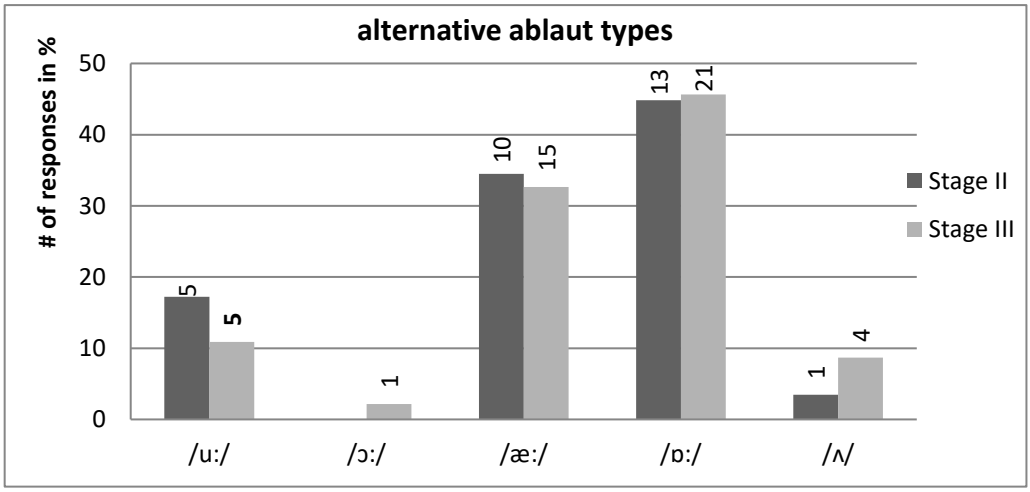

Figure 26: Alternative ablaut types used by learners in Stage II and III

ablaut	Stage	Verbs	n
/uː/	II	*spook* (5)	**5**
	III	*spook* (3), *stool* (1), *toog* (1)	**5**
/ɔː/	II	-	**0**
	III	*graw* (1)	**1**
/æ/	II	*thank* (2), *fand* (1), *brang* (7)	**10**
	III	*tank* (4), *fand* (2), *brang* (9),	**15**
/ɒ/	II	*thonk* (1), *dronk* (1), *fond* (2), *brong* (1), *spot* (3), *sponk* (2), *tog* (2), *bonk* (1)	**13**
	III	*thonk* (2), *dronk* (2), *fond* (2), *song* (1), *sonk* (2), *rong* (2), *brong* (1), *sponk* (2), *splong* (1), *wrong* (5), *vonk* (1)	**21**
/ʌ/	II	*drunk* (1)	**1**
	III	*sunk* (1), *sput* (1), *spunk* (1), *tug* (1)	**4**

Table 44: Alternative ablaut types with their respective frequency of occurrence

The table shows that the learners created schemas in order to impose systematicity to language. The use of /uː/, /ɔː/ and /ʌ/ remained at a relatively low level. It is questionable whether those ablaut responses can be regarded as schemas in the learners' mental representations of English preterite formation. The other ablaut responses, however, did occur more frequently, which justifies referring to them as schemas. The schemas were misleading, as the students used a deviant ablaut pattern. The questionnaires comprised six strong verbs with the prototypical phonological shape /ɪŋ(k)/, which required another ablaut type than /æ/-/ʌ/ (e.g. *think* and *bring*). In the case of *think*, 8,7% of the total responses featured /æ/ (**thank*) in Stage II and 16% in Stage III; **brang* occurred even more often with 29,17% in Stage II and 37% in Stage III.[77] From Stage II to Stage III, an increase of the /æ/-ablaut was observable. The results can be viewed as support for the hypothesis of the successive establishment of schemas. These prototypical categories expand to other verbs that belong to different verb groups and that do not require /æ/-ablaut. Even those verbs that learners already know can be affected. It is likely that exemplars are replaced by schemas on the basis of phonological properties and analogy.

In addition to the overgeneralisation of ablaut groups, the emergence of the alternative ablaut type /ɒ/ is striking. It occurred to a higher extent with prototypical verbs and it was relatively rare with other verbs. Interestingly, only a very small number of English verbs take /ɒ/-ablaut, such as *get*, *lose* and *shoot*.[78] By contrast, the verbs in the questionnaire prompting this ablaut type featured /ɪ/ in their nuclei, which English verbs with /ɒ/-ablaut usually do not, as the aforementioned examples suggest. Analogy formation is weak in terms of its explanatory potential, since it remains unclear on which verbs the learners drew analogies. It can be hypothesised that the increasing amount of <o>-ablaut reflects the dynamic nature of IL development. Schemas are constantly changing over time, which results in an emergence of deviant ablaut types. The learners had apparently incorporated vowel change as a means for past tense formation into their IL systems. However, the ablaut type violates the TL. The responses reveal that the learners attempted to

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[77] The results provide further evidence concerning the effect of knowing a verb on past tense formation. While *bring* as a novel verb prompted more responses with /æ/-ablaut, the known verb *think* displayed fewer deviant ablaut responses, as the learners had already encountered its past tense.

[78] The pronunciation is restricted to the RP variant of the preterites *got*, *lost* and *shot*.

assign a particular vowel change pattern to specific verbs. This corresponds to the CCT claim that complex systems are characterised by a "rise of new order […]" and by "[u]npredictable behaviour" (cf. Larsen-Freeman 2011:52). The occurrence of <o> supports the hypothesis that learners move from exemplar-based reproduction to schema-based formation. More time is needed to strengthen the target-like schemas and to abandon erroneous forms with deviant ablaut types.

Another striking issue addresses the responses bearing morphological errors, such as **he sangs* with the target verb *sings* or *we *spokeing* with the target verb *speaking*. Deviant forms of this type occurred more frequently with known strong verbs than with novel weak verbs. Initially, this might be viewed as counterevidence to the claim that learners have difficulties in processing novel verbs as to their suffixes. However, the results might be biased by the questionnaire's design, as the amount of inflected target verbs with known strong verbs was higher than with novel strong and weak verbs. This clearly can affect the results by leading to a higher number of deviant responses. More novel verbs featuring inflection in the other categories might have yielded different scores. The results imply the need for further empirical evidence that takes into account morphological issues of this type.

6.4.3 Summary

The results of the questionnaire show, first of all, that the learners strongly drew on exemplars in Stage I with a high preference for regular past-tense formation with novel and nonce verbs. The learners formed the preterite of novel verbs by means of the suffix *–ed*. Past tense formation with novel verbs involves more cognitive demands, such as processing the verb for meaning and form. As a result, morphologically ill-formed responses occurred to a higher degree (**waitinged*). With increasing proficiency, the learners obviously moved from exemplar-based reproduction to rule- or schema-based formation, as the immense increase of ablaut responses in Stage II and III shows. The target-like /æ/-ablaut was adopted by the learners and was applied to other verbs with a similar phonological shape. The results provide evidence for a restructuring process in terms of knowledge representation, in spite of the low evidence for U-shaped learning curves. It seems plausible to suggest that restructuring had not been completed by Stage III. The diverse IL variants with strong verbs in particular are indicative of the chaos in the

IL system. The emergence of alternative ablaut types, which were not the result of analogy formation, such as the /ɒ/-ablaut, is an expression of that chaos and reflects the learners' attempt to impose systematicity to past tense formation. The chaos in Stage III indicates that the acquisition of preterite formation is a continuous process and requires more time and constant input in order to facilitate the establishment of schemas in the IL system.

6.5 Past Tense Formation in Textbooks

As input approaches suggest, it is essential to analyse how frequently a form occurs in the texts. Therefore, this section focuses on the linguistic structures that the textbook offers to the learners. In addition to that, the tasks and exercises in the units that practice the simple past in its use are examined in terms of design and complexity. One methodological problem addresses the point of introducing preterite formation. The past simple is scheduled for the end of year 5 (Unit 5) and beginning of year 6 (*Welcome Back* and Unit 1) according to the textbook. The introduction of the past simple at a relatively late point in the school term carries the risk that teachers might not be able to complete all the teaching units. As a consequence, essential preterite forms might be absent from the learners' IL repertoire. Furthermore, learners might also lack information concerning the distribution of a structure if teachers do not manage to finish with the textbook. It might be worth considering to introduce the simple past in the same school year rather than separating this grammatical subject into two years.

As pointed out earlier, the simple past is introduced successively. Initially, the textbook presents the past tense forms of BE and their negative counterparts (*was, were, wasn't, weren't*) in a simple dialogue. The input that learners receive aims at supporting the learners in ascribing the past tense forms of BE to their respective subjects. Table 45 summarises the diverse sentences that include the forms of BE in Unit 5.

text	copula form	n_{was}	n_{were}	n_{Total}
1	Where were you; I was …; How was it; It was OK; We were all very nervous; Was the teacher happy; I think she was; And were you good; I wasn't bad; My group was in the …	**7**	**3**	**10**
2	Jack was home; How was your rehearsal; We were fantastic; We were terrible; She was here a minute ago; Mr Green was on the phone	**4**	**2**	**6**
3	It was silly; I was cross; He was cross	**3**	**-**	**3**
4	It was a good year; We were part of …; We were happy; How was your year	**2**	**2**	**4**

Table 45: Amount of input for *was/were* in Unit 5, Cornelsen G21, D1 (2006)

The table shows that *was* and *were* occur at approximately the same degree, even though *was* is represented slightly more frequently. The distribution helps the learners to ascribe the past tense forms of BE to their respective subjects. Moreover, the sentences in the table reveal that *was* and *were* reoccur in the follow-up texts, which additionally support the acquisition of the two structures and their distribution. As regards the polarity of the sentences, the textbook uses positive and negative sentences as well as questions with the copula.

Subsequent to the introduction of *was* and *were*, learners receive input containing weak preterite formation, followed by strong past tense forms as shown in Table 46.

	weak	n	strong	n
Text 2	shouted, answered, played, talked, asked, stopped, listened, walked	**8**	was (4), were (2)	**6**
Text 3	looked, laughed, watched	**3**	had, said, saw, came, told, got up, went, was (5), were	**13**
Text 4	wanted, stayed	**2**	made (2), saw (2), had, went ,was (2), were (2)	**10**
Text 5	talked, laughed, answered, asked (2), watched, waited, climbed, called (2), killed, sailed, shouted (5), rammed, started, opened (2), mixed, pushed (2)	**24**	sat (3), said (11), ran (2), had, took (3), came (2), saw (4), did, was (13), were (3)	**43**
Text 6	whispered (2), asked	**3**	said (8)	**8**
Text 7	travelled, watched, wanted	**3**	went (5), met, took, flew, saw, rode, were (2), was (9)	**21**
Text 8	rained, played (2), grumbled, listened, tried	**6**	went, had, spoke, threw, put (2), read, was (3)	**10**
Text 9	stayed	**1**	was (8), were (2), flew, came, heard, took (2)	**15**
Text 10	happened	**1**	got, saw, was (2)	**4**
Text 11	opened, looked (4), whispered, asked (3), talked, called (3), shouted (4), grumbled, started, saved	**20**	came (3), was (3), could, said (17), made, went (5), got (2), saw (3), met, ran, had (2)	**39**

Table 46: Frequency of occurrence of the past tense forms in Unit 5 and 6 (Cornelsen G21, D1 2006) and Unit *Welcome Back* and 1 (Cornelsen G21, D2 2007)

The data show that the follow-up texts successively introduce weak and strong past tense formation. Students learn that verbs usually take the suffix *–ed* for expressing past events. The box, *Looking at language,* under the respective texts (cf. Cornelsen G21 D1 2006:87) provides an implicit-inductive manner to introduce weak past tense formation. First, the learners must identify the referenced point of time of the events mentioned in the text. Then, they are required to detect the systematic formation of the preterite. By doing so, their attention is shifted towards the structure and its function. The approach corresponds to the principles of noticing as defined by Schmidt (1990). Moreover, processing instruction by means of skewed input can be supportive to noticing (cf. Van Patten 1996, 2008; Van Patten and

Uludag 2011). As the forms of BE are included in the texts as well, learners are less likely to apply weak past tense formation to the copula. The input continuously reminds students of the distinct preterite forms of BE. Thus, frequency of occurrence is employed by textbooks to support the learners in storing *was* and *were*. In Text 3, strong verbs immediately follow the introduction of weak past tense formation. At this stage, learners know three ways of forming the preterite, i.e. weak formation with *–ed*, strong formation with ablaut, and the past tense forms of BE. As regards the design of the input, strong verbs are represented more frequently (n=169) than weak verbs (n=124). Even though it could be hypothesised that the dominance of ablaut verbs affects L2 past tense formation, the results of the study show that learners do not deduce any generalisations from the overrepresentation of strong preterites. This supports the claim that students categorise the verbs they learn into weak and strong verbs. The large number of strong verbs facilitates the acquisition of ablaut verbs, since learners can memorise them more easily (cf. Ellis and Larsen-Freeman 2006:565). The most frequently represented verbs are *was* (n=49), *were* (n=12), *said* (n=37), *saw* (n=12) and *went* (n=13). The high representation of these verbs can account for the results in the empirical part of this chapter. The target verbs *see* and *go* prompted less IL variants and fewer errors, as the learners had experienced them more frequently in the input than other verbs.

The textbook employs text types that include strong verbs in an authentic context. The preterite is used as a narrative tense in stories. This shift, from dialogues to narrations with direct speech, approximates the natural use of the TL that learners increasingly encounter, for instance in newspaper articles, novels and other media. The texts provide input to the learners that includes simple past forms exclusively up to Unit 4 in Cornelsen G21, D2 (2007), which introduces the past participle in the present perfect. The constant reoccurrence of the tense helps the learners consolidate the use of the preterite forms. Weak and strong verbs frequently occur. Due to the continuous activation, learners are less likely to form the preterite of these verbs erroneously in communication. With regard to the input properties, textbook obviously uses enriched and comprehensible input in an authentic context for supporting acquisition.[79]

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[79] One questionable issue addresses the introduction of negative statements and questions with the simple past immediately after strong verbs. Within one teaching unit, learners are expected to acquire the past tense forms of BE, weak preterite formation, (c) strong preterites, (d) negative statements with *didn't* and (e) questions with *did*. This grammatical overload is probably suboptimal.

As far as the tasks used in Cornelsen G21 (2006, 2007) are concerned, the textbooks offer various opportunities for learners to practise and automatise the use of the preterite, including *was* and *were*, weak and strong past tense formation and mixed forms. As negative statements are introduced as well, some of the tasks require the use of *didn't*. After the implicit-inductive introduction of the target forms, learners are encouraged to employ the forms in tasks which are labelled as *Now You* (cf. Cornelsen G21 D1:2006; Cornelsen G21 D2:2007). In pair work, the students have to detect where their partners were at a specific time and what they did. As the following examples show, these activities are rather simple, in that learners are required to produce sentences with prefabricated phrases:

(5) `Where were you?`
`- I was at home/at school/at a party/shopping/...`

(6) `What did you do?`
`- I played computer games/read a book/...`

As regards the processes involved when responding to the questions, the task is less demanding; learners do not have to activate other IL domains, such as syntax or morphology. In addition to the *Now You* tasks, analytic exercises are included that focus on form exclusively. However, this is not considered disadvantageous, as focus on form and accuracy is required to some extent for practicing the correct use of a structure (cf. Long 1991:45-46). Table 47 provides an overview on the tasks used in the respective textbooks.

	was/were	regular	irregular	mixed[80]
focus on form (simple tasks)	*Now You* Where were you?	*Verb snake* colouring past tense forms	*Match the pieces* Colouring and sentence completion	*Linking words* sentence completion task
	Mr Kingsley's phone call sentence completion task	*School 100 years ago* sentence completion task	*Find the verbs* recognition (crossword) and sentence completion	*Dan's report* sentence completion
	An e-mail from Becky sentence completion task	*Verb snake* colouring past tense forms		
	Mr Kingsley's old school (questions) sentence completion task	*Last Week reading* comprehension: skimming		
	How were your holidays? sentence completion			
focus on meaning (complex tasks)	*Were you at home yesterday?* dialogue task	*After school* partner work: table description		*Now You* Your last weekend
	Where were Tim's things? picture description task	*Extra: Your first day at school* What did you do?		*My holidays* Mindmap, oral presentation
	Saturday afternoon focus on form	*Now You* Tell your partner what you did		
	Your holidays partner work	*Boring!* Free Writing		

Table 47: List of the tasks provided in Cornelsen G21, D1 (2006) and D2 (2007) on past tense formation

The table illustrates the vast amount of tasks and activities that the textbook offers. Learners have numerous opportunities to practice the use of the simple past and to produce output. Tasks that draw on perceptive cues support the memorisation of

[80] More tasks that stimulate the learners to differentiate between regular and irregular past tense formation can be found in the textbook. These, however, also include negative statements. Learners are required to make use of two processes. First, they must detect if the sentence is positive or negative (with or without *didn't*), and secondly, if positive, determine whether the verb is regular or irregular.

strong past tense formation, such as matching or colouring strong preterites and their respective infinitives. Matching enhances acquisition as learners must develop their own strategies for recognising the past tense forms. In terms of processing, learners establish relationships between verbs and their preterite forms in their mental lexicon. This task type is an adequate approach to strong past tense formation.[81]

However, the textbook lacks matching tasks in the follow-up units. Since L2 past tense formation strongly draws on input, learners continuously encounter new preterites and should be supported by the textbook in memorising them. It might be advisable to provide learners with more activities that help them store strong verbs. The textbook employs matching tasks only in Unit 1 in year 6 and future irregular verbs are neglected. Moreover, revision tasks on the simple past are absent. Since IL systems constantly change with the input provided (cf. De Bot, Lowie and Verspoor 2007a, 2007b; Larsen-Freeman 1997, 2011), learners are unlikely to have stored all the preterite forms by the end of Unit 1. Restructuring allegedly occurs whenever learners encounter new strong verbs (cf. McLaughlin 1990). The results in the empirical parts of this chapter show that alternative ablaut types emerge in the course of time, especially the <o>-ablaut. Further tasks might provide opportunities for learners to produce output and to verify or reject their hypotheses concerning ablaut patterns. With regard to complexity requirements in tasks (cf. Robinson 2001, 2003b, 2005; Robinson and Gilabert 2007) and task manipulation (cf. Duran and Ramaut 2006), tasks can also reactivate the knowledge about past tense formation in exercises that focus on different grammar topics. In Unit 2, for instance, learners encounter the comparison of adjectives. Additional tasks might be included, which refer to past-time events, in order to trigger the use of the preterite forms. Apart from practicing the correct formation of the simple past, complex tasks are beneficial, as they are cognitively more demanding (Robinson and Gilabert 2007). The more challenging a task is, the higher is the learners' long-term retention (cf. Robinson and Gilabert 2007:162). It is advisable that textbooks employ more tasks that force learners to activate more domains of the TL.

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[81] Tasks of this type support formulaic language learning, which might be regarded as suboptimal in L2 learning. However, strong preterite forms, to some extent, require the memorisation of chunks, as there are no rules governing the use of a particular ablaut type. Past tense formation draws on representations in the long-term memory, which learners deduce from the input (cf. N. Ellis 2002; Ellis and Larsen-Freeman 2006, 2009; Ellis and Ferreira-Junior 2009).

Furthermore, the textbook should include more holistic tasks. Analytical tasks do have benefits when it comes to automatising a structure and achieving controlled output. However, as Samuda and Bygate suggest, holistic tasks activate more than one subsystem of the IL system (2008:7). The learners' increasing proficiency enables them to engage in linguistically more complex actions. Therefore, more challenging tasks, which approximate authentic speech situations, should be included. Compilers should opt for a balance between focus on form and on meaning. Examples of such a task type are fairy tales, story-retelling or picture description tasks, in which learners receive visual or auditory input and are required to use their language skills to produce comprehensible input. The tasks necessitate the use of adequate words, syntactic rules, tense and morphology as well as general competences, such as formulating sentences by drawing on visual stimuli. Dialogues are also examples of holistic tasks, since learners are required to participate actively in discourse by activating their linguistic skills. Cornelsen G21 D1 (2006) and D2 (2007) offer preformulated chunks and syntactic clusters to learners. This facilitates speech production and keeps the task less demanding in order to reduce the cognitive effort required from the learners.

To conclude, the textbook offers a wide range of material for automatising past tense formation in L2 speech production. This is beneficial for the delimitation of weak and strong preterites, since it requires learners to reactivate the stored forms. Additionally, input enhancement methods, such as colouring, facilitate the process of noticing of a structure and promote acquisition. However, there is room for improvement, as the low number of holistic, complex tasks reflects. Tasks of this type would activate not only past tense formation, but also other domains of the IL system. Moreover, constant revision is necessary, since preterite formation is a continuous process.

6.6 Summary

The results in this chapter show that learners initially prefer weak past tense formation, although strong verbs are represented more frequently in the input. However, the most frequent strong verbs have higher accuracy rates than other verbs in Stage I. This provides evidence for the facilitating effect of token frequency on acquisition. As learners memorise past tense forms in the first stage, they predominantly use suffixation for novel verbs rather than ablaut (Rumelhart and

McClelland 1986). This reveals that learners prefer weak past tense formation if a particular verb is absent from their mental lexicon. The task types in the textbook, especially the colouring and matching tasks, evoke learning strategies that draw on memorising chunks. Learners initially do not seem to draw on crosslinguistic similarities or analogies on the basis of a verb's phonological shape. However, the results imply that, with more input, schemas evolve in Stage II and III. Learners begin to make use of the ablaut type /ɪ/-/æ/ for prototypical verbs of the type /sC(C) ɪ ŋ (k)/ in analogy to phonologically similar verbs, such as *sing* or *drink*. Evidence for crosslinguistic influence is minimal, as the example of *think* – **thank* indicates, since the target-like form *thought* is closer to the learners' NL German. What is more, alternative ablaut types apparently emerge, above all the <o>-ablaut. Although the textbook provides the learners with skewed input, the lack of tasks in the follow-up units appears to complicate the direction of development towards target-like performance. The results can be regarded as evidence for restructuring, as learners store frequent preterite forms as chunks in Stage I, while drawing on analogies in Stage II and III. As further tasks with the opportunity for controlled output are missing, learners form schemas without receiving evidence that the ablaut patterns deviate from the target-like forms. Consequently, forms such as *he *thank* or *I *brong* evolve. Ablaut seems to become, to some extent, productive in learner language, which it is not in fact. This reflects the need for further tasks in the follow-up units. By the end of a teaching unit, learners have not ceased modifying their IL systems. They require more support in validating or rejecting their hypotheses about the TL by means of analytical and holistic tasks.

7 Conclusion, Implications and Further Considerations

The data in this dissertation have offered an empirical approach to three areas of grammar in the foreign language classroom, that is, the acquisition of BE, negative statements and preterite formation. The results show how IL behaves when learners encounter new structures in the input and how the increase in knowledge leads to apparent chaos and subsequent restructuring. The didactic analysis of the textbook provides evidence that teaching material does not fully correspond to theories of learning as formulated by previous research in cognitive linguistics, such as frequency accounts (cf. for example Larsen-Freeman 2006) or U-shaped learning and CCT (cf. McLaughlin 1990; Larsen-Freeman 1997, 2007, 2011). This supports the claim that language pedagogy and applied linguistics have remained largely separated in the last decades, even though some attempts have been made. While research in foreign language acquisition focuses on cognitive and psychological principles of learning, didactics puts special emphasis on processes within the classroom, i.e. how something is taught. The results in this dissertation, however, highlight the need to unite these two disciplines in order to improve foreign language teaching, as R. Ellis (2010) has claimed. The present study results in four conclusions; some of them are not new, but reflect the need for further improvements and research.

Conclusion 1: Learning comprises restructuring processes, as IL systems are dynamic.

Textbook compilers should consider that errors are an integral part of the foreign language classroom and that the acquisition of a particular structure is a long process. Correct responses, at a certain point in time, do not reflect that a student has acquired the structure. Learners must encounter structures more frequently and be provided with more opportunities to use them in authentic contexts. The analysis of the teaching material has showed that textbook compilers do not always draw on previously taught structures. They seem to assume that learners have acquired an area of grammar by the end of a teaching unit. However, the data in this dissertation provide strong evidence for the destabilisation of the learners' IL systems, even weeks after the introduction of a target structure. As soon as learners add new information to their existing knowledge, error rates are likely to increase. Depending on the degree of difficulty, the reorganisation of the IL system requires

more time than scheduled by the textbooks. This is the case with negations in particular, as Chapter 5 has showed. The restructuring process was considerably long and ultimate attainment was absent. Since IL systems behave in non-linear ways (cf. De Bot, Lowie and Verspoor 2007a, 2007b), chaos, expressed by numerous IL variants, is one characteristic of dynamic systems (cf. Larsen-Freeman 1997, 2007, 2011). Textbooks, by contrast, introduce new target structures in each teaching unit while neglecting previously taught ones. As a consequence, specific errors are likely to remain unnoticed by teachers. Deviant structures are likely to persist. The textbook did not offer any opportunities for learners to practise, for instance, the use of the simple past after the first teaching unit. Learners were expected to have incorporated the correct use of weak and strong past tense formation into their IL system by the end of Unit 1, since the second and the third unit focus on different areas of grammar. The same problem was observable in the data on negation as well. Even weeks after the teaching of negative statements, the learners had severe difficulties with the negation of BE. This does not imply that textbooks have to include analytic tasks for each target feature from previous units. The findings rather suggest that material should provide holistic tasks as defined by Samuda and Bygate (2008) that continuously activate the learners' knowledge of previously encountered structures. In terms of past tense formation, for instance, activities can be set in a past-time context in order to prompt responses with adjectives, adverbs and comparisons in the follow-up units. The more frequently learners have to produce a target form, the easier it is for the teacher to pursue their IL development and to identify potential difficulties. This dissertation, drawing on Robinson and Gilabert (2006), argues that complex tasks, which activate more domains of the learners' IL systems, have a greater long-term effect and lead to a higher degree of accuracy (cf. Robinson and Gilabert 2007:162). The inclusion of previously taught structures helps teachers to evaluate the learning process and to assess whether learners, in fact, have fully acquired a structure. For this purpose, learners should be provided with opportunities to practise and consolidate their knowledge. The findings in this dissertation provide support for the critical claim that restructuring accounts have not been sufficiently considered by textbook compilers.

Conclusion 2: Errors help linguists identify and analyse the processes in the learners' IL systems. Since errors help to identify difficulties, research should focus on erroneous performance in addition to target-like performance.

This conclusion is certainly not new; however, in the light of a vast amount of research neglecting error analysis as an insightful instrument for detecting IL development, it merits mention. Errors in the EFL classroom are significant, since they reveal essential information regarding the present state of the learners' IL systems. Thus, errors should not be regarded as something negative, as Corder (1967) claims. They rather reflect how learners organise information about the TL. This correlates with the CCT claim that, even in apparent chaos, there is systematicity (cf. Larsen-Freeman 1997, 2007, 2011). The analysis of the questionnaires demonstrated that only a limited number of errors is random. Most of the responses did exhibit a pattern. Moreover, the results supported the claim that error analysis is helpful for researchers and teachers alike to define what learners find difficult. Categorising the errors into IL variants contributes to examining how the IL representations deviate from the TL structure. Error analysis helps teachers determine which contents require special emphasis in the FL classroom. This contributes to the detection of errors that learners are expected to commit and why they do so. The results in the empirical parts support that learning is U-shaped. Learners tend to make more errors, especially in intermediate stages when new structures are in conflict with previous knowledge representations. The data in the Stage II questionnaires imply that a high error rate in many cases correlates with a high number of IL variants. Apparently, learners then commit more diverse errors, which successively disappear due to the reorganisation of the IL system.

Conclusion 3: Language pedagogy and SLA research have largely remained separated.

Conclusions 1 to 3 highlight that SLA research and language pedagogy, despite the mutual interest, have remained separate disciplines. There have been improvements, as recent studies in cognitive linguistics show (cf. for example N. Ellis and Larsen-Freeman 2006, 2009; Robinson and Gilabert 2007; Larsen-Freeman 2007, 2011; R. Ellis 2010; Révész 2011). However, the vast majority of SLA research has focused on more general principles and processes in acquiring foreign languages without formulating conclusions for the FL classroom (cf. R.

Ellis 1998:185). It has been suggested that studies should not only focus on very young or adult learners, but on school children as well (cf. Tomlinson 1998:343; R. Ellis 2010:185). This is plausible, since the most representative setting of FL acquisition is the classroom; most children learn a foreign language at school, at least in European countries, as required by the Council of Europe in the Common European Framework of Reference for Languages (2001:3). However, the vast majority of research strongly concentrates on foreign language learning in elementary and primary schools, adult learners at universities or on immigrants in the country of the TL. The focus is on naturalistic learning, which differs from L2 learning in secondary schools. More research and empirical data are desirable with emphasis on the most common way of L2 learning, i.e. in schools. The initial aim to improve the teaching and learning of EFL by means of fundamental research has been relegated to the background. It is not suggested, however, that previous research is not beneficial, but that SLA research must formulate implications for teaching.

At the same time, language pedagogy does not take into account those findings in SLA research that are useful for teaching, such as restructuring approaches (cf. Tomasello and Herron 1988; McLaughlin 1990; Tomasello 2001, 2010), DST/CCT (cf. DeBot, Lowie and Verspoor 2007a, 2007b) or CASP (cf. Filipović and Hawkins 2012, 2013). The results of this dissertation highlight that textbook compilers do not always consider that learning is U-shaped and that some areas of grammar have to be continuously activated. The textbooks expect learners to have incorporated a particular structure into their IL systems by the end of a unit. Follow-up activities are rare. The dissertation provides strong evidence that didactics and SLA research must cooperate for mutual benefits and for contributing to the improvement of TEFL. This recommendation is further expressed in the fourth conclusion.

Conclusion 4: More research in the classroom is required.

Even after decades of further research in L2 acquisition and teaching, many of the questions have remained unresolved due to the separation of linguistic approaches and language pedagogy. Finding ways to combine teachers' experiences and linguistic research on how learning functions would help to improve the teaching of foreign languages. Moreover, reuniting these two disciplines might foster

psycholinguistic insight into language processing and acquisition. This consideration has also been repeatedly expressed by R. Ellis (1997, 2010). He suggests that teachers' research is required, i.e. "research done by teachers for teachers" (cf. R. Ellis 2010:185). Similar claims have also been raised by Tomlinson (1998):

> WE NEED TO FIND WAYS OF BRINGING TOGETHER RESEARCHERS; TEACHERS; WRITERS AND PUBLISHERS SO AS TO POOL RESOURCES AND TO TAKE ADVANTAGE OF DIFFERENT AREAS OF EXPERTISE IN ORDER TO PRODUCE MATERIALS OF GREATER VALUE TO LEARNERS OF LANGUAGES.
>
> (Tomlinson 1998:343)

These two claims reflect that, on the one hand, linguistic research must be settled within the classroom if researchers aim at obtaining a precise picture of foreign language learning in schools. On the other hand, teachers must also be aware of findings in SLA research. The knowledge concerning what they can expect from their learners and the understanding of where errors have their origins enables teachers to approach the matter from a new perspective. Deviant responses in the classroom, due to restructuring processes, can be analysed more precisely if teachers can interpret them appropriately. While some errors are the result of a lack of input and practice, others are indicative of the incomplete acquisition of a target structure. The dissertation suggests that negative statements, for instance, are an issue of difficulty for learners, as the textbook does not take into account U-shaped learning. There is strong evidence that, as soon as *do*-support is introduced, learners overgeneralise this new pattern and apply it to verbs that reject it. As teachers have not been trained to be researchers, they do not interpret the responses as a consequence of insufficient input. They rather assume that learners have forgotten what they previously knew. According to R. Ellis (1997, 2010), teachers' research facilitates the recognition of cognitive processes in the foreign language classroom. What is more, textbook compilers can benefit from this type of research, as it is positioned at the interface of language pedagogy and SLA research. Further research in the classroom on more areas of grammar provides opportunities to innovate teaching material and techniques, as the results can highlight omnipresent processes in learning (such as U-shaped learning). Moreover, the data indicate how teaching can be adapted to essential principles and theories of SLA. The following figure illustrates the interdependency of language pedagogy, SLA research and the implications for textbook compilers:

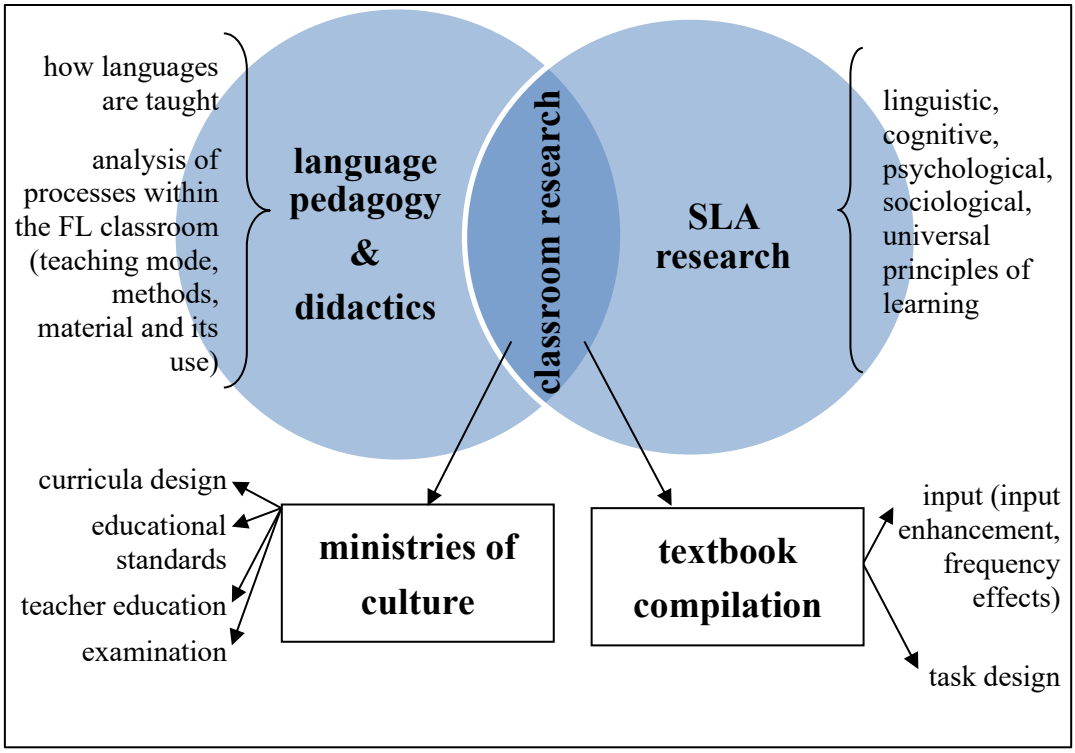

Figure 27: An integrative model of the relationship between language pedagogy and SLA research and their implications for classroom research

The figure shows that classroom research is positioned at the interface of SLA research and language pedagogy. At the same time, textbook and material compilation should be based on the findings of teachers' research. Compilers draw on recent trends in didactics, such as self-directed learning, differentiation and implicit-inductive teaching modes with alternating focus-on-form and focus-on-meaning periods. Additionally, classroom research is a means for detecting sequences that help to order areas of grammar in textbooks. For instance, the finding that the paradigm of BE causes difficulties as soon as negative statements with *do*-support are introduced, suggests that it might be worth considering to introduce the present progressive prior to the simple present.[82] As the present progressive requires the constant use of BE in positive and negative statements with *'m not*, *aren't* and *isn't*, learners could consolidate their knowledge of the forms of BE and might be less likely to expand *do*-support to BE in later stages. The order of acquisition here does not refer to any natural order as suggested by previous morpheme order studies (cf. Dulay and Burt 1974a, 1974b; Bailey, Madden and Krashen 1974); it rather

[82] In the previous textbook Cornelsen G2000, D1 (1997), the present progressive was taught before the simple present. However, recent textbooks introduce the simple present and negative statements earlier. This demonstrates that findings in SLA research were taken into account in the compilation process.

addresses the sixth principle of the CASP model by Filipović and Hawkins (2013:169), i.e. ‘order of second language acquisition’. As presented in 2.1.4, this principle is a result of the interplay of the previous principles, such as input frequency, complexity, language relatedness and communicative factors. The results of this dissertation indicate that compilers should take recent findings in SLA research into account which consider the facilitating effects of skewed input and input enhancement, task complexity and restructuring. Moreover, the results of further teachers’ research might support governmental institutions, such as ministries of education, to redesign appropriate curricula, reformulate educational standards and to develop more adequate examination techniques for students.

The need to promote further research, which links SLA and classroom research in order to implement recent models has also been expressed by Filipović and Hawkins (2013). They emphasise the advantage of CASP and of approaches that consider the many variables in the learning process:

> [I]t will inspire further interdisciplinary research in SLA and bring grammarians, learning and processing theorists, and corpus linguistics closer together, as well as opening channels of communication between theoreticians and practitioners who work on teaching and assessment.
>
> (Filipović and Hawkins 2013:171)

Interdisciplinary research is a key term. It corresponds to the claim that further studies in the classroom are required in order to provide more empirical data for learning processes. In contrast to Filipović and Hawkins (2013), this dissertation does not explicitly highlight the importance of learner corpora, which are valuable for research. They give insight into typical errors and error sources and they contribute to formulating generalisations about learners’ IL states. However, in their current state, learner corpora cannot fully provide classroom research with sufficient information, since they lack important information about the initial state of the target groups, such as the learning conditions (explicit versus implicit teaching; deductive versus inductive approaches). Different settings might probably yield different outcomes. Learner corpora might become of better use in classroom research if they feature more detailed information on learners, settings, methods and conditions of learning. As a result, promoting more classroom research done by teachers as suggested by R. Ellis (1997, 2010) is advantageous both for immediate empirical analysis and for compiling more detailed learner corpora Further research must be conducted in order to gather more insight into how

learning and acquisition function. This would enable teachers and textbook compilers alike to improve foreign language teaching by adapting the principles to the learners' needs.

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Appendix

Check your words again ☺

Family

Hello! My name _____ ..... .

Du: What ____ your name?

Jessica: Hi! My name _____ Jessica.

Du: Where _____ you from, Jessica?

Jessica: _____ from London. What about you?

Du: _____ from ..... (Schreibe wo du herkommst ☺)

Jessica: That _____ in Germany.

Du: Yes, that_____ right!

Jessica: And how old _____ you?

Du: _____ ..... years old. What about you? (Schreibe auf, wie alt du bist ☺)

Jessica: _____ twelve years old. I have got two brothers. Dan _____ eleven and Jo _____ eleven years old too.

Du: Oh, they _____ twins!?

Jessica: Yes, they _____ twins. And this _____ my mother. She ____ 35 years old. _____ from Germany too. Her name _____ Martina. And this _____ my father.

What about your family?

(Schreibe nun etwas kurzes über deine Familie. Was du willst ☺)

My mother .... My father .... My brother .... My sister ....

1st sing. *am*	correct	19(18)	27	I am from ...	90,74% (n= 98)
		18(18)	27	I am from ...	
		20(19)	27	I am ... years old	
		19(18)	27	I am ... years old	
		76	**108**	**70,37%**	
	erroneous contraction	6	27	Im from ...	
		6	27	Im from ...	
		5	27	Im ... years old.	
		5	27	Im ... years old.	
		22	**108**	**20,37%**	
	Ø	2	27	I --- from ...	9,26% (n=10)
		2	27	I --- from ...	
		1	27	I --- ... years old.	
		1	27	I --- years old.	
		6	**108**	**5,56%**	
	erroneous copula form	-	**27**	I is/are from ...	
		1	**27**	I is/are from ...	
		1	**27**	I is/are ... years old.	
		2	**27**	I is/are ... years old.	
		4	**108**	**3,7%**	

2nd sing. *are*	correct	22	27	Where are you from?	94,34% (n=50)
		22	26	How old are you?	
		44	**53**	**83,02%**	
	phonological similarity	4	27	Where ar you from?	
		2	26	How old a you?	
		6	**53**	**11,32%**	
	Ø	-	27	Where --- you from?	5,66% (n=3)
		2	26	How old --- you?	
		2	**53**	**3,77%**	
	erroneous copula form	1	27	Where is you from?	
		-	26	How old is you?	
		1	**53**	**1,89%**	

3rd sing. NP+*is*	correct	25	28	My name is ...	93,52% (n=101)
		24(16)	26	What is ...	
		26	27	My name is ...	
		25	27	Her name is ...	
		100	**108**	**92,59%**	
	erroneous contraction	-	28		
		1	26	Whats ...	
		-	27		
		-	27		
		1	**108**	**0,93%**	
	Ø	2	28	My name --- ...	6,48% (n=7)
		-	26		
		-	27		
		-	27		
		2	**108**	**1,85%**	
	add morpheme	1	28	My name it's ...	
		1	26	What you your name?	
		1	27	My name it's ...	
		1	27	Her name it's ...	
		4	**108**	**3,7%**	
	erroneous copula form	-	28		
		-	26		
		-	27		
		1	27	Her name are ...	
		1	**108**	**0,93%**	

3rd sing. DET+*is*	correct	21(9)	27	That's in Germany	91,66% (n=99)
		24(10)	27	That's right	
		26	27	This is ...	
		26	27	This is ...	
		97	**108**	**89,91%**	
	erroneous contraction	1	27	Thats in Germany	
		1	27	Thats right	
		-	27		
		-	27		
		2	**108**	**1,85%**	
	Ø	1	27	That --- in Germany	8,33% (n=9=
		1	27	That --- right	
		-	27		
		-	27		
		2	**108**	**1,85%**	
	add morpheme	2	27	That it's in Germany	
		1	27	That it's right	
		3	27	This it's ...	
		1	27	This it's ...	
		7	**108**	**6,48%**	

3rd sing. PRON/NM + *is*	correct	23	27	Dan is ... the mad twin	87,65% (n=71)
		21	27	Jo is ... the mad twin	
		27(4)	27	She is ...	
		71	**81**	**87,65%**	
	add morpheme	3	27	Dan he is ... the mad	12,35% (n=10)
		5	27	Jo he is ... the mad ...	
		-	27		
		8	**81**	**9,88%**	
	Ø	1	27	Dan --- the mad twin	
		1	27	Jo --- the mad twin	
		-	27		
		2	**81**	**2,47%**	

3rd plural *are*	correct	15(1)	27	They're twins	62,96% (n=34)
		15(1)	27	They're twins	
		30	**54**	**55,56%**	
	phonological similarity	1	27	They a/are twins	
		1	27	They a/are twins	
		2	**54**	**3,70%**	
	erroneous contraction	1	27	Theyre twins	
		1	27	Theyre twins	
		2	**54**	**3,7%**	
	add morpheme	5	27	They Dan and Jo are	37,04% (n=20)
		4	27	They Dan and Jo are	
		9	**54**	**16,67%**	
	Ø	4	27	They --- twins	
		2	27	They --- twins	
		6	**54**	**11,11%**	
	erroneous copula form	1	27	They is twins	
		4	27	They is twins	
		5	**54**	**9,26%**	

1st plural + *are*	correct	18(12)	27	We're here	**71,6% (n=58)**
		19(12)	27	We're Dan and Jo	
		16(11)	27	We're twins	
		54	**81**	**66,67%**	
	phonological similarity	-	27		
		2	27	We a/'r Dan and Jo	
		-	27		
		2	**81**	**2,47%**	
	erroneous contraction	1	27	Were together	
		-	27		
		1	27	Were twins	
		2	**81**	**2,47%**	
	Ø	-	27		**28,4% (n=23)**
		4	27	We --- Dan and Jo	
		5	27	We --- twins	
		9	**81**	**11,11%**	
	wrong word	3	27	We all/get/go here	
		1	27	We can Dan and Jo	
		-	27		
		4	**81**	**4,94%**	
	erroneous copula form	5	27	We is here	
		1	27	We is Dan and Jo	
		4	27	We is in the same class	
		10	**81**	**12,35%**	

2nd plural + *are*	correct	19(15)	27	You are in our class	**57,41% (n=31)**
		10	27	Are you twins?	
		29	**54**	**53,7%**	
	phonological similarity	1	27	You'r in our class	
		-	27		
		1	**54**	**1,85%**	
	negation	1	27	You aren't in our class	
		-	27		
		1	**54**	**1,85%**	
	Ø	-	27		**42,59% (n=23)**
		6	27	--- you twins?	
		6	**54**	**11,11%**	
	wrong word	1	27	You I't in our class	
		7	27	They you twins?	
		8	**54**	**14,81%**	
	add morpheme	1	27	You it's in our class	
		3	27	It's/he's/we're you twins?	
		4	**54**	**7,41%**	
	erroneous copula form	4	27	You is in our class	
		1	27	Is you twins?	
		5	**54**	**9,26%**	

3rd sing. *is* (DET)	correct	27	27	This is Emily	**88,89% (n=96)**
		23(16)	27	That's right	
		24	27	This is Dan	
		22(14)	27	That's not good	
		96	**108**	**88,89%**	
	Ø	-	27		**11,11% (n=12)**
		1	27	That --- right	
		3	27	This --- Dan	
		4	27	That --- not	
		8	**108**	**7,41%**	
	wrong word	-	27		
		3	27	That very right	
		-	27		
		-	27		
		3	**108**	**2,78%**	
	add morpheme	-	27		
		-	27		
		-	27		
		1	27	That it's not good	
		1	**108**	**0,93%**	

3rd sing. complex NP	correct	21	27	My mother is ...	**78,7% (n=85)**
		22	27	My black baby dog is	
		24	27	My name is	
		15	27	His pencil case is ...	
		82	**108**	**75,93%**	
	negation	1	27	My mother isn't ...	
		1	27	My [...] dog isn't ...	
		-	27		
		1	27	His pencil case isn't ...	
		3	**108**	**2,78%**	
	Ø	-	27		**21,3% (n=23)**
		1	27	My [...] dog --- clever	
		3	27	My name --- Dan	
		4	27	His pencil case --- at ...	
		8	**108**	**7,41%**	
	wrong word	1	27	My mother there ...	
		1	27	My [...] dog there ...	
		-	27		
		5	27	... pencil case there ...	
		7	**108**	**6,48%**	
	add morpheme	4	27	My mother it's ...	
		1	27	My [...] dog it's clever	
		-	27		
		1	27	His pencil case he's ...	
		6	**108**	**5,56%**	
	erroneous copula form	-	27		
		1	27	My [...] dog are clever	
		-	27		
		1	27	His pencil case are ...	
		2	**108**	**1,85%**	

1st plural complex NP	correct	2	27	Ananda and I are ...	**7,41% (n=2)**
		2	**27**	**7,41%**	
	Ø	4	27	Ananda and I --- friends	**92,59% (n=25)**
		4	**27**	**14,81%**	
	wrong word	1	27	Ananda and I with friends	
		1	**27**	**3,7%**	
	add morpheme	2	27	Ananda and I he's friends	
		2	**27**	**7,41%**	
	confusion	17	27	Ananda and I am friends	
		17	**27**	**63%**	
	erroneous copula form	1	27	Ananda and I is friends	
		1	**27**	**3,7%**	

1st sing. *am*	correct	23(21)	27	I'm a football fan	87,04% (n=94)
		23(22)	27	I'm twelve years old	
		22(21)	27	I'm Dan's brother	
		19(17)	27	I'm your friend	
		87	**108**	**80,56%**	
	erroneous contraction	2	27	Im a football fan	
		4	27	Im twelve years old	
		-	27		
		1	27	Im your friend	
		7	**108**	**6,48%**	
	Ø	1	27	I — a football fan	12,96% (n=14)
		-	27		
		4	27	I — Dan's brother	
		5	27	I — your friend	
		10	**108**	**9,26%**	
	wrong word	1	27	I love football fan	
		-	27		
		1	27	I there Dan's brother	
		1	27	I yes your friend	
		3	**108**	**2,78%**	
	add morpheme	-	27		
		-	27		
		-	27		
		1	27	I he's your friend	
		1	**108**	**0,93%**	

2nd sing. *are*	correct	8	27	Are you from ...?	53,08% (n=43)
		17(7)	27	You are a mad ..	
		17(10)	27	You are Ananda	
		42	**81**	**51,85%**	
	phonological similarity	-	27		
		-	27		
		1	27	You'r Ananda	
		1	**81**	**1,23%**	
	Ø	6	27	— You from ...?	46,92% (n=38)
		3	27	You — a mad ..	
		2	27	You — Ananda	
		11	**81**	**13,58%**	
	wrong word	7	27	There you from ...?	
		4	27	You the a mad ..	
		2	27	You and Ananda	
		13	**81**	**16,05%**	
	add morpheme	6	27	I'm you from ...?	
		1	27	You I'm a mad ..	
		4	27	You I'm Ananda	
		11	**81**	**13,58%**	
	erroneous copula form	-	27		
		2	27	You is a mad ..	
		1	27	You is Ananda	
		3	**81**	**3,7%**	

3rd sing. *is* (PRON+NAME)	correct	22	27	Jack is eleven	88,88% (n=72)
		27(10)	27	She is my sister (isn't)	
		23(7)	27	He is my brother	
		72	**81**	**88,88%**	
	Ø	-	27		11,12% (n=9)
		-	27		
		3	27	He — my brother	
		3	**81**	**3,7%**	
	wrong word	-	27		
		-	27		
		1	27	He there my brother	
		1	**81**	**1,23%**	
	add morpheme	5	27	Jack it's eleven ...	
		-	27		
		-	27		
		5	**81**	**6,17%**	

3rd plural + *are*	correct	12	27	The two boys are twins	53,7% (n=58)
		20(10)	27	They are twins	
		12	27	Where are your pencils?	
		10(9)	27	They're at home	
		57	**108**	**52,78%**	
	phonological similarity	-	27		
		1	27	They a twins	
		-	27		
		-	27		
		1	**108**	**0,93%**	
	Ø	2	27	The two boys — twins	46,3% (n=50)
		1	27	They — twins	
		6	27	Where — your pencils?	
		4	27	They — at home	
		13	**108**	**12,04%**	
	wrong word	6	27	The two boys they/the/and/we twins	
		2	27	They names/whit twins	
		2	27	Where't/her pencils	
		1	27	They and at home	
		11	**108**	**10,19%**	
	add morpheme	6	27	The two boys we're twins	
		-	27		
		-	27		
		1	27	They he's twins	
		7	**108**	**6,48%**	
	erroneous copula form	1	27	The two boys is twins	
		3	27	They is twins	
		7	27	Where is your pencils?	
		8	27	They is at home	
		19	**108**	**17,59%**	

1st sing. *am*	correct	25(16)	27	I am a football fan	**87,04% (n=94)**
		21(15)	27	I am twelve ...	
		24(18)	27	I am Dan's brother	
		23(10)	27	I am your friend	
		93(59)	**108**	**86,1%**	
	erroneous contraction	-	27		
		1	27	Im twelve ...	
		-	27		
		-	27		
		1	**108**	**0,93%**	
	wrong word	-	27		**12,96% (n=14)**
		2	27	I me twelve	
		1	27	I on Dan's brother	
		1	27	I there your friend	
		4	**108**	**3,7%**	
	Ø	2	27	I — a football fan	
		2	27	I — twelve ...	
		2	27	I — Dan's brother	
		2	27	I — your friend	
		8	**108**	**7,41%**	
	erroneous copula form	-	27		
		1	27	I are twelve	
		-	27		
		1	27	I are your friend	
		2	**108**	**1,85%**	

2nd sing. *are*	correct	21	27	Are you from Sheffield?	**86,42% (n=70)**
		22(9)	27	You are a mad poltergeist	
		25(10)	27	You are Ananda	
		68	**81**	**83,95%**	
	phonological similarity	-	27		
		1	27	You a a mad poltergeist	
		-	27		
		1	**81**	**1,23%**	
	erroneous contraction	-	27		
		1	27	You'are a mad poltergeist	
		-	27		
		1	**81**	**1,23%**	
	wrong word	1	27	Ananda you from Sheffield?	**13,58% (n=11)**
		-	27		
		1	27	You clever Ananda	
		2	**81**	**2,47%**	
	Ø	3	27	— you from Sheffield?	
		-	27		
		-	27		
		3	**81**	**3,7%**	
	erroneous copula form	2	27	Is you from Sheffield?	
		3	27	You is a mad poltergeist	
		1	27	You is Ananda	
		6	**81**	**7,41%**	

3rd sing *is* (PRON/NAME)	correct	26	27	Jack is 11 years old	**98,77% (n=80)**
		27(10)	27	She is my sister	
		27(12)	27	He is my brother	
		80	**81**	**98,77%**	
	wrong word	1	27	Jack your 11 years old	**1,23% (n=1)**
		-	27		
		-	27		
		1	**81**	**1,23%**	

3rd sing. *is* (DET)	correct	26	27	This is Emily	**97,22% (n=105)**
		27(20)	27	That is right	
		27	27	This is Dan	
		24(17)	27	That is not good	
		104	**108**	**96,3%**	
	negation	-	27		
		-	27		
		-	27		
		1	27	That isn't not good	
		1	**108**	**0,93%**	
	wrong word	-	27		**2,78% (n=3)**
		-	27		
		-	27		
		1	27	That you not good	
		1	**108**	**0,93%**	
	Ø	1	27	This — Emily	
		-	27		
		-	27		
		1	27		
		1	**108**	**0,93%**	
	erroneous copula form	-	27		
		-	27		
		-	27		
		1	27	That are not good	
		1	**108**	**0,93%**	

3rd sing. complex NP	correct	25	27	My mother is in the kitchen	**95,4% (n=103)**
		26	27	My black baby dog is ...	
		25	27	His pencil case is at home	
		27	27	My name is Jo	
		103	**108**	**95,4%**	
	wrong word	2	27	My mother me in the kitchen	**4,6% (n=5)**
		-	27		
		-	27		
		-	27		
		2	**108**	**1,85%**	
	Ø	-	27		
		-	27		
		1	27	His pencil case — at home	
		-	27		
		1	**108**	**0,93%**	
	erroneous copula form	-	27		
		1	27	My [...] dog are clever	
		1	27	His pencil case are at home	
		-	27		
		2	**108**	**1,85%**	

1st plural *are*	correct	24(13)	27	We are together	**83,33% (n=90)**
		26	27	We are Dan and Jo	
		12	27	Ananda and I are in the ...	
		25	27	We are in the same class	
		87	**108**	**80,56%**	
	erroneous contraction	1	27	We'are together	
		-	27		
		-	27		
		1	27	We'are in the same class	
		2	**108**	**1,85%**	
	phonological similarity	-	27		
		-	27		
		1	27	Ananda and I ar friends	
		-	27		
		1	**108**	**0,93%**	
	wrong word	1	27	We you together	**16,67% (n=18)**
		1	27	We haven't got Dan and Jo	
		-	27		
		1	27	We they in the same class	
		3	**108**	**2,78%**	
	add morpheme	-	27		
		-	27		
		1	27	Ananda and I we're ...	
		-	27		
		1	**108**	**0,93%**	
	Ø	1	27	We --- together	
		-	27		
		-	27		
		-	27		
		1	**108**	**0,93%**	
	erroneous copula form	-	27		
		-	27		
		13	27	Ananda and I am friends	
		-	27		
		13	**108**	**12,04%**	

3rd plural + *are*	correct	21	27	The two boys are twins	**85,93% (n=82)**
		22(8)	27	They are Dan and Jo	
		19	27	Where are your pencils?	
		18(7)	27	They are at home	
		80	**108**	**74,1%**	
	erroneous contraction	-	27		
		1	27	They'are Dan and Jo	
		-	27		
		1	27	They'are at home	
		2	**108**	**1,85%**	
	wrong word	-	27		**24,07% (n=26)**
		3	27	They me Dan and Jo	
		-	27		
		1	27	They me at home	
		4	**108**	**3,7%**	
	Ø	2	27	The two boys --- twins	
		-	27		
		-	27		
		-	27		
		2	**108**	**1,85%**	
	erroneous copula form	1	27	The two boys is twins	
		3	27	They is Dan and Jo	
		8	27	Where is your pencils?	
		8	27	They is at home	
		20	**108**	**18,52%**	

2nd plural + *are*	correct	23	27	Are you in our class?	**87,04% (n=47)**
		22	27	Are you twins?	
		45	**54**	**83,33%**	
	erroneous contraction	1	27	You'are in our class	
		-	27		
		1	**54**	**1,85%**	
	phonological similarity	1	27	You'r in our class	
		-	27		
		1	**54**	**1,85%**	
	wrong word	1	27	You me in our class	**12,96% (n=7)**
		3	27	They you twins?	
		4	**54**	**7,41%**	
	Ø	-	27		
		2	27	--- you twins?	
		2	**54**	**3,7%**	
	erroneous copula form	1	27	You is in our class	
		-	27		
		1	**54**	**1,85%**	

Die folgenden Aussagen sind falsch. Beantworte die Fragen!

1) Am I in class 7PK?

No, you not in class 7PK.

2) Is Paul 16 years old?

No, he isn't 16 years old.

3) Have they got a swimming pool?

No, they haven't got a swimming pool.

4) Are we in room 017?

No, we aren't in room 017.

5) Are you from Berlin?

No, I'm not from Berlin.

6) Can you speak Japanese?

No, I can't speak Japanese.

7) Are you two Jack and Tom?

No, ~~I'm not~~ we aren't Jack and Tom.

8) Is she Ms. Stein?

1st sing. *am not*	correct	17	28	I'm not from Berlin	
		17	**28**	**60,71%**	
	erroneous contraction	2	28	Im not from Berlin	**75% (n=21)**
		2	**28**	**7,14%**	
	wrong subject	1	28	You aren't from Berlin	
		1	**28**	**3,57%**	
	positive statement	1	28	I am from Walldorf	
		1	**28**	**3,57%**	
	copula omission	1	28	I — not from Berlin	
		1	**28**	**3,57%**	
	subject omission	1	28	— aren't from Berlin	
		1	**28**	**3,57%**	**25% (n=7)**
	constituent fragmentation	1	28	I'm from not Berlin	
		1	**28**	**3,57%**	
	erroneous copula form	4	28	I aren't from Berlin	
		4	**28**	**14,28%**	
2nd sing. *are not*	correct	16	27	You are not in class	
		16	**27**	**59,26%**	
	erroneous contraction	1	27	You arent in class	**66,67% (n=18)**
		1	**27**	**3,7%**	
	wrong subject	1	27	I'm not in class	
		1	**27**	**3,7%**	
	copula omission	7	27	You — not in class	
		7	**27**	**25,93%**	**33,33% (n=9)**
	erroneous copula form	2	27	You is in class	
		2	**27**	**5,4%**	
3rd sing. *is not*	correct	18	27	He isn't ... years old	
		13	24	It isn't Drama	
		21	28	She isn't	
		52	**79**	**65,82%**	
	phonological similarity	1	27	He isen't	
		-	24		
		-	28		
		1	**79**	**1,27%**	**86,08% (n=68)**
	positive statement	3	27	He is 16 years old	
		5	24	My favourite subject is ...	
		2	28	She is Ms Stein	
		10	**79**	**12,86%**	
	wrong subject	-	27		
		4	24	They aren't	
		1	28	I'm not	
		5	**79**	**6,33%**	
	copula omission	1	27	He — not	
		-	24		
		1	28	She — not Ms Stein	
		2	**79**	**2,53%**	
	subject omission	-	27		
		-	24		
		1	28	— is Ms Stein	
		1	**79**	**1,27%**	
	constituent fragmentation	-	27		
		1	24	Not my favourite subject is	
		-	28		
		1	**79**	**1,27%**	**13,92% (n=11)**
	error in verb type	2	27	He has got ... years old	
		-	24		
		1	28	She has got Ms Stein	
		3	**79**	**3,8%**	
	erroneous copula form	2	27	He aren't	
		1	24	It aren't	
		1	28	She aren't	
		4	**79**	**5,06%**	

1st plural *are+not*	correct	15	26	We aren't in the football ...	
		18	28	We aren't in room ...	
		16	26	We aren't Jack and Tom	
		49	**80**	**61,25%**	
	erroneous contraction	-	26		
		1	28	We are'nt	
		-	26		**86,25% (n=69)**
		1	**80**	**1,25%**	
	positive statement	-	26		
		4	28	We are in room ...	
		-	26		
		4	**80**	**5,00%**	
	wrong subject	8	26	They aren't in the ...	
		-	28		
		7	26	I'm not Jack and Tom	
		15	**80**	**18,75%**	
	constituent fragmentation	-	26		
		1	28	We're aren't	
		-	26		
		1	**80**	**1,25%**	
	subject omission	-	26		
		-	28		
		2	26	— has got Jack and Tom	
		2	**80**	**2,50%**	**13,75% (n=11)**
	copula omission	3	26	You — not in the football ...	
		3	28	We — not in room ...	
		-	26		
		6	**80**	**7,5%**	
	error in verb type	-	26		
		1	28	We haven't got in room ...	
		-	26		
		1	**80**	**1,25%**	
	erroneous copula form	-	26		
		-	28		
		1	26	I aren't Jack and Tom	
		1	**80**	**1,25%**	

2nd plural *are+not*	correct	4	26	You and Ananda aren't in ...	
		4	**26**	**15,38%**	
	wrong subject	15	26	We aren't in the same class (Ananda and I aren't)	**73,08% (n=19)**
		15	**26**	**57,69%**	
	subject omission	2	26	— are not in the same class	
		2	**26**	**7,69%**	
	copula omission	1	26	— not in the same class	
		1	**26**	**3,85%**	
	constituent fragmentation	2	26	I'm not Ananda in the same ...	**26,92% (n=7=**
		2	**26**	**7,69%**	
	error in verb type	1	26	... haven't got in the same ...	
		1	**26**	**3,85%**	
	erroneous copula form	1	26	she aren't in the same ...	
		1	**26**	**3,85%**	

3rd plural *are+not*	correct	17	28	The students aren't mad	
		15	27	My mum and dad aren't	
		32	**55**	**58,18%**	**65,09% (n=38)**
	wrong subject	4	28	The student isn't mad	
		2	27	We aren't / I'm not	
		6	**55**	**10,91%**	
	subject omission	1	28	— aren't clever	
		3	27	— aren't ...	
		4	**55**	**7,27%**	
	copula omission	1	28	— not clever	
		3	27	— not from India	
		4	**55**	**7,27%**	**30,91% (n=17)**
	constituent fragmentation	3	28	I'm not the students clever	
		1	27	you aren't mum and dad ...	
		4	**55**	**7,27%**	
	erroneous copula form	2	28	The students is not clever	
		3	27	My mum and dad is not	
		5	**55**	**9,09%**	
modal can	correct	19	28	I can't speak Japanese	
		25	27	Tina can't fly	
		44	**55**	**80%**	
	erroneous contraction	1	28	I cant speak	
		-	27		
		1	**55**	**1,82%**	**89,09% (n=49)**
	wrong subject	1	28	he can't speak ...	
		-	27		
		1	**55**	**1,82%**	
	positive statement	2	28	I can speak German	
		1	27	Tina can fly	
		3	**55**	**5,45%**	
	verb omission	1	28	You — not Japanese	
		-	27		
		1	**55**	**1,82%**	
	subject omission	1	28	— speak Japanese	
		-	27		
		1	**55**	**1,82%**	
	double negation	1	28	I can't not speak Japanese	**10,91% (n=6)**
		-	27		
		1	**55**	**1,82%**	
	constituent fragmentation	-	28		
		1	27	I can not Tina fly	
		1	**55**	**1,82%**	
	error in verb type	2	28	I'm not speak Japanese	
		-	27		
		2	**55**	**3,64%**	
have got/has got	correct	19	26	I haven't got 1.000€	
		15	27	They haven't got	
		34	**53**	**62,96%**	
	phonological similarity	-	26		
		2	27	They haven/heven't got	
		2	**53**	**3,85%**	**71,7% (n=38)**
	wrong subject	1	26	He hasn't got 1000€	
		-	27		
		1	**53**	**1,89%**	
	positive statement	-	26		
		1	27	They have got	
		1	**53**	**1,89%**	
	verb omission	1	26	I — not got 1000€	
		2	27	They — not got	
		3	**53**	**5,66%**	
	error in verb type	4	26	I'm not got 1000€	**28,3% (n=15)**
		5	27	They aren't a swimming pool	
		9	**53**	**16,98%**	
	erroneous verb form	1	26	I hasn't got 1000€	
		2	27	They hasn't got ...	
		3	**53**	**5,66%**	

Check your English ☺

What's your name? Victoria justice

Schreibe auf, dass die folgenden Aussagen nicht richtig sind!

Tina gets up at 7:45.
No, she doesn't get up at 7:45.

The Browns have got a house.
No, they don't have got a house.

You go to school on Saturday.
No, I doesn't go to school on saturday.

Am I from South Africa?
No, you doesn't from south africa.

The children play in the kitchen.
No, they don't play in the kitchen.

We live in Darmstadt.
No, you doesn't live in Darmstadt.

My black baby dog drinks hot chocolate.
No, your blacks baby dog doesn't drink hot chocolate.

Snoopy the dog can talk.
No, snoopy the dog can't talk.

I play the piano at night.
No, you doesn't play the piano at night.

Jack, Jo! You come from London?
No, we aren't from london.

Robert has got an elephant?
No, he doesn't has got an elephant.

She feeds her rabbit at school.
No, she doesn't feed her rabbit at shool.

Ananda and Dilip work in the shop in the morning.
No, they don't work in the shop in the morning.

I eat spaghetti for breakfast.
No, you doesn't eat spaghetti for breakfast.

We can speak japanese.
No, you can't speak japanese.

You listen to CDs at school.
No, I doesn't listen to CDs at school.

The blue pencil case is in the kitchen.
No, the blue pencil case doesn't in the kitchen.

Ananda, Dilip! You go to school at 10.00.
No, we don't go to school at 10.00 o clock.

The English teacher speaks French.
No, the English teacher doesn't speak French.

My brother has got an i-Phone.
No, my brother doesn't has got an i-phone.

We write essays in Maths.
No, you doesn't write essays in maths.

My father and my mother go to bed very late on Wednesday.
No, my parents don't go to bed very late on wednesday.

My parents are from India.
No, my parents are from india.

Marc watches TV in the morning.
No, marc watches tv in the morning.

Dan's and Jo's father goes to work at 12.00.
No, Dan and jo's father goes to work at 12:00 o'clock.

I can fly.
No, you can't fly.

3rd sing. simple NP [*do*-support]

correct	12	26	Tina doesn't get up		35% (n=21)
	8	23	She doesn't feed the ...		
	1	11	Marc doesn't watch ...		
	21	60	35%		
inflection error	10	26	She doesn't/don't gets up; don't get up		
	11	23	she doesn't feeds		
	9	11	Marc doesn't/don't watches		
	30	60	50%		
word order	.	26	.		
	2	23	She feeds don't/doesn't		
	.	11	.		
	2	60	3,33%		58,33% (n=35)
verb omission	1	26	She doesn't — at 7:45		
	1	23	She doesn't — the dog		
	.	11	.		
	2	60	3,33%		
subject omission	1	26	— doesn't get up at 7:45		
	.	23	.		
	.	11	.		
	1	60	1,67%		
verb type	1	26	you aren't gets up		
	1	23	She can't feed		
	1	11	Marc aren't watches		
	3	60	5%		6,67% (n=4)
[-do-support]	1	26	She get up not at ...		
	.	23	.		
	.	11	.		
	1	60	1,67%		

3rd sing. complex NP

correct	6	23	My black baby dog doesn't drink ...		25,49% (n=13)
	2	10	Dan and Jo's father doesn't go to ...		
	4	18	Our English teacher doesn't speak ...		
	12	51	23,53%		
wrog subject	.	23	.		
	1	10	They don't go to work		
	.	18	.		
	1	51	1,96%		
inflection error	12	23	He doesn't drinks; don't drink/drinks		
	5	10	He doesn't/don't watches		
	10	18	He don't speaks/speak; doesn't speaks		
	27	51	52,94%		
word order	1	23	He drinks don't ...		60,78% (n=31)
	.	10	.		
	1	18	He speaks don't ...		
	2	51	3,92%		
verb omission	2	23	My [...] dog doesn't — hot chocolate		
	.	10	.		
	.	18	.		
	2	51	3,92%		
verb type	1	23	He isn't drink		
	2	10	They aren't watch		
	2	18	he aren't speak		
	5	51	9,8%		13,73% (n=7)
[-do-support]	1	23	He drinks not		
	.	10	.		
	1	18	He speaks not		
	2	51	3,92%		

can + not

correct	14	26	Snoopy can't talk		46,77% (n=29)
	5	11	You can't fly		
	10	24	You can't speak Japanese		
	29	62	46,77%		
erroneous negation type	.	26	.		3,23% (n=2)
	1	12	You aren't fly		
	1	24	You aren't speak		
	2	62	3,23%		
negation type [-modal]	4	26	Snoopy doesn't talk		50% (n=31)
	1	12	You don't fly		
	6	24	You don't (doesn't) speak		
	11	62	17,74%		
negation type [+modal]	7	26	Snoopy doesn't can talk		
	1	12	You don't can fly		
	5	24	You don't can speak		
	18	62	29,03%		
negation type [word order]	1	26	Snoopy can don't fly		
	.	12	.		
	1	24	You can don't speak		
	2	62	3,23%		

1st sing. (complex)

correct	11	26	I don't go to school on Sundays		55,1% (n=27)
	15	23	I don't listen to CDs at school		
	26	49	53,06%		
wrong subject	1	26	You don't go to ...		
	.	23	.		
	1	49	2,04%		
inflection error	4	26	I doesn't go to ...		26,53% (n=13)
	5	23	I don't listens/I doesn't listen ...		
	9	49	18,37%		
word order	1	26	I go don't ...		
	.	23	.		
	1	49	2,04%		
verb omission	2	26	I don't to school		18,37% (n=9)
	1	23	I don't to CDs ...		
	3	49	6,12%		
verb type	5	26	I'm not go to school		
	1	23	I'm not listen to		
	6	49	12,24%		
[-do-support]	2	26	I go not to school		
	1	23	I listen not to ...		
	3	49	6,12%		

2nd sing. (complex)

correct	12	24	You don't play		51,02% (n=25)
	13	25	You don't eat		
	25	49	51,02%		
inflection error	6	24	You doesn't play		38,78% (n=19)
	5	25	You doesn't eat		
	11	49	22,45%		
word order	3	24	You play don't		
	3	25	You eat don't		
	6	49	12,24%		
verb omission	.	24	.		
	2	25	You doesn't spaghetti		
	2	49	4,08%		
verb type	1	24	You aren't play		10,2% (n=5)
	1	25	You aren't eat		
	2	49	4,08%		
[-do-support]	2	24	You play not		
	1	25	You eat not		
	3	49	6,12%		

BE + not

correct	4	24	You aren't from ZA		32,2% (n=19)
	9	23	The blue pencil case isn't		
	6	12	They aren't from India		
	19	59	32,2%		
copula omission	2	24	You not from ZA		5,08% (n=3)
	.	23	.		
	.	12	.		
	2	59	3,39%		
erroneous copula form	1	24	.		
	1	23	The blue pencil case aren't		
	.	12	.		
	1	59	1,69%		
negation type [+copula]	1	24	You don't am from ZA		62,71% (n=37)
	3	23	It doesn't is		
	2	12	It don't are		
	6	59	10,17%		
negation type [-copula]	16	24	You don't from ZA		
	7	23	The blue pencil case doesn't at ...		
	4	12	They don't from India		
	27	59	45,76%		
negation type [word order]	1	24	You are don't from ZA		
	.	23	.		
	.	12	.		
	1	59	1,69%		
negation type [constituent fragmentation]	.	24	.		
	3	23	Don't the blue pencil case is ...		
	.	12	.		
	3	59	5,08%		

have got + not

correct	10	26	They haven't got a house		34,28% (n=24)
	6	24	He hasn't got an elephant		
	7	20	He hasn't got an i-phone		
	23	70	32,86%		
wrong subject	.	26	.		
	.	24	.		
	1	20	They haven't got an i-phone		
	1	70	1,43%		
erroneous verb form	.	26	.		
	1	24	He haven't got		
	.	20	.		
	1	70	1,43%		
erroneous negation type	.	26	.		4,29% (n=3)
	1	24	He aren't an elephant		
	1	20	He aren't got an i-phone		
	2	70	2,86%		
negation type [+verb]	14	26	They don't have got a ...		61,43% (n=70)
	12	24	He doesn't/don't have got ...		
	6	20	He doesn't have/has got ...		
	32	70	45,71%		
negation type [-verb]	2	26	They don't a house		
	3	24	He doesn't an elephant		
	3	20	He doesn't an i-phone		
	8	70	11,43%		
negation type [word order]	.	26	.		
	.	24	.		
	1	20	He has got doesn't		
	1	70	1,43%		
negation type [constituent fragmentation]	.	26	.		
	1	24	Don't he has got an elephant.		
	1	20	Don't my brother has got ...		
	2	70	2,86%		

1st. pl. [*do*-support]

correct	7	24	We don't come from ...	**38,64% (n=17)**	
	10	20	We don't go to school ...		
	17	**44**	**38,64%**		
inflection error	3	24	We doesn't come	**43,18% (n19)**	
	7	20	We doesn't go		
	10	**44**	**22,73%**		
verb omission	6	24	We doesn't --- from		
	-	20			
	6	**44**	**13,64%**		
word order	1	24	We come don't from		
	-	20			
	1	**44**	**2,27%**		
constituent fragmentation	2	24	don't Jack, Jo come from London		
	-	20			
	2	**44**	**4,55%**		
verb type	4	24	We aren't come	**18,18% (8)**	
	2	20	We aren't go		
	6	**44**	**13,64%**		
[-do-support]	1	24	We come not		
	1	20	Weg o not		
	2	**44**	**4,55%**		

2nd. pl. [*do*-support]

correct	12	24	You don't live in Darmstadt	**55,26% (n=21)**	
	9	14	You don't write essays		
	21	**38**	**55,26%**		
inflection error	7	24	You doesn't live	**34,21% (n=13)**	
	1	14	You doesn't write		
	8	**38**	**21,05%**		
word order	2	24	You live don't		
	1	14	You write don't		
	3	**38**	**7,89%**		
verb omission	-	24			
	2	14	You don't --- essays		
	2	**38**	**5,26%**		
verb type	1	24	You aren't live	**10,53% (n=4)**	
	1	14	You aren't write		
	2	**38**	**5,26%**		
[-do-support]	2	24	You live not		
	-	14			
	2	**38**	**5,26%**		

3rd. pl. [*do*-support]

correct	11	26	The children don't play ...	**45,16% (n=28)**	
	10	24	Ananda and Dilip don't work ...		
	4	12	My mother and father don't go ...		
	25	**62**	**40,32%**		
wrong subject	2	26	She doesn't play/You don't play		
	-	24			
	1	12	He doesn't go ...		
	3	**62**	**4,84%**		
inflection error	7	26	The children doesn't play	**37,1% (n=23)**	
	8	24	A. and D. doesn't work		
	3	12	My m. and f. doesn't go		
	18	**62**	**29,03%**		
word order	1	26	The children play don't		
	-	24			
	-	12			
	1	**62**	**1,61%**		
verb omission	-	26			
	2	24	A. and D. don't --- in the shop		
	-	12			
	2	**62**	**3,23%**		
constituent fragmentation	1	26	Doesn't the children play ...		
	1	24	Doesn't A. and D. work in the shop		
	-	12			
	2	**62**	**3,23%**		
verb type	2	26	They aren't play	**17,74% (n=11)**	
	2	24	They aren't work		
	2	12	They aren't go		
	6	**62**	**9,68%**		
[-do-support]	2	26	The children play not		
	1	24	A. and D. work not		
	2	12	My m. and f. go no [goesn't]		
	5	**62**	**8,06%**		

BE + *not*	correct	6	24	You aren't from ZA	
		10	26	The blue pencil case isn't	
		6	19	They aren't from India	
		22	**69**	**31,88%**	**47,83% (n=33)**
	positive statement	3	24	You are from ...	
		4	26	The blue pencil case is at home	
		4	19	My parent are ...	
		11	**69**	**15,94%**	
	copula omission	2	24	You not from ZA	
		1	26	The blue pencil case not at home	**4,35% (n=3)**
		-	19		
		3	**69**	**4,35%**	
	negation type [+copula]	-	24		
		4	26	It doesn't is	
		4	19	It don't are	
		8	**69**	**11,59%**	
	negation type [-copula]	15	24	You don't from ZA	
		2	26	The blue pencil case doesn't at ...	
		4	19	They don't from India	
		21	**69**	**30,43%**	**47,82% (n=33)**
	negation type [word order]	-	24		
		-	26		
		1	19	They are don't ...	
		1	**69**	**1,45%**	
	negation type [constituent fragmentation]	-	24		
		3	26	don't have got the blue pencil case is ...	
		-	19		
		3	**69**	**4,35%**	

have got + not	correct	9	27	They haven't got a house	
		10	25	He hasn't got an elephant	
		11	23	He hasn't got an i-phone	
		30	**75**	**40%**	
	wrong subject	-	27		
		1	25	I haven't got an i-phone	**52% (n=39)**
		-	23		
		1	**75**	**1,33%**	
	positive statement	3	27	They have got a house	
		2	25	He has got a dog	
		3	23	My brother has got an i-phone	
		8	**75**	**10,67%**	
	erroneous verb form	-	27		
		1	25	He haven't got	**1,33% (n=1)**
		-	23		
		1	**75**	**1,33%**	
	negation type [+verb]	15	27	They don't have got a ...	
		10	25	He doesn't/don't have got ...	
		9	23	He doesn't have/has got ...	
		34	**75**	**45,33%**	**46,67% (n=35)**
	negation type [constituent fragmentation]	-	27		
		1	25	I don't have got Robert an elephant	
		-	23		
		1	**75**	**1,33%**	

can + not	correct	9	26	Snoopy can't talk	
		11	25	You can't speak Japanese	
		9	18	You can't fly	
		29	**69**	**42,03%**	**55,07% (n=38)**
	positive statement	3	26	Snoopy can talk	
		4	25	You can speak	
		2	18	You can fly	
		9	**69**	**13,04%**	
	erroneous negation type	-	26		
		1	25	you aren't speak	**2,9% (n=2)**
		1	18	you aren't fly	
		2	**69**	**2,9%**	
	negation type [+modal]	12	26	Snoopy don't can talk	
		7	25	You don't can speak	
		6	18	You don't can fly	
		25	**69**	**36,23%**	
	negation type [word order]	1	26	Snoopy can don't talk	
		2	25	You can don't speak	**42,03% (n=29)**
		-	18		
		3	**69**	**4,35%**	
	negation type [constituent fragmentation]	1	26	Don't Snoopy the dog can talk	
		-	25		
		-	18		
		1	**69**	**1,45%**	

1st sing. [*do*-support]	correct	10	27	I don't go to school on ...	
		11	25	I don't listen to CDs at school	
		21	**52**	**40,38%**	**53,85% (n=28)**
	positive statement	3	27	I go to school on ...	
		4	25	I listen to CDs at home	
		7	**52**	**13,46%**	
	inflection error	12	27	I doesn't go to ...	
		8	25	I doesn't listen to ...	
		20	**52**	**38,46%**	**40,38% (n=21)**
	word order	-	27		
		1	25	I listen don't to ...	
		1	**52**	**1,92%**	
	verb type	-	27		
		1	25	I'm not listen to ...	
		1	**52**	**1,92%**	**5,77% (n=52)**
	[-do-support]	2	27	I go not to school	
		-	25		
		2	**52**	**3,85%**	

2nd sing. [*do*-support]	correct	5	27	You don't play the piano	
		6	25	You don't eat spaghetti	
		11	**52**	**21,15%**	**38,46% (n=20)**
	positive statement	5	27	You play the piano	
		4	25	You eat spaghetti	
		9	**52**	**17,31%**	
	inflection error	12	27	You doesn't play	
		10	25	You doesn't eat	
		22	**52**	**42,31%**	**48,08% (n=25)**
	word order	2	27	You play don't	
		1	25	You eat don't	
		3	**52**	**5,77%**	
	verb type	3	27	You aren't play	
		3	25	You aren't eat	
		6	**52**	**11,54%**	**13,46% (n=7)**
	[-do-support]	-	27		
		1	25	You eat not spaghetti	
		1	**52**	**1,92%**	

1st plural [*do*-support]

correct	12	27	We don't come from ...		68,63% (n=35)
	14	24	We don't go to school ...		
	26	**51**	**50,98%**		
positive statement	5	27	We come from Walldorf		
	4	24	We go to school		
	9	**51**	**17,65%**		
inflection error	4	27	We don't/doesn't come		23,53% (n=12)
	2	24	We don't goes/doesn't go		
	6	**51**	**11,76%**		
verb omission	3	27	We don't from London		
	1	24	We don't to school		
	4	**51**	**7,84%**		
word order	2	27	We come don't from ...		
	-	24			
	2	**51**	**3,92%**		
verb type	-	27			7,84% (n=4)
	3	24	We aren't go		
	3	**51**	**5,88%**		
[-do-support]	1	27	We come not from ...		
	-	24			
	1	**51**	**1,96%**		

2nd plural [*do*-support]

correct	8	27	You don't live in Darmstadt	46% (n=23)
	9	23	You don't write essays	
	17	**50**	**34%**	
positive statement	4	27	You live in Darmstadt	
	2	23	You write essays	
	6	**50**	**12%**	
inflection error	10	27	You doesn't live/don't lives	46% (n=23)
	10	23	You doesn't write	
	20	**50**	**40%**	
verb omission	-	27		
	1	23	You doesn't essays in Maths	
	1	**50**	**2%**	
word order	2	27	You live don't in ...	
	-	23		
	2	**50**	**4%**	
verb type	1	27	You aren't live in ...	8% (n=4)
	1	23	You aren't write ...	
	2	**50**	**4%**	
[-do-support]	2	27	You live not in ...	
	-	23		
	2	**50**	**4%**	

3rd plural [*do*-support]

correct	14	24	Ananda and Dilip don't work ...	81,16% (n=56)
	14	18	My mother and father don't go ...	
	18	27	The children don't play ...	
	46	**69**	**66,67%**	
positive statement	3	24	A and D work in the shop	
	2	18	My mum and dad go to bed early	
	3	27	The children play in the ...	
	8	**69**	**11,59%**	
wrong subject	1	24	We don't work in the shop	
	-	18		
	1	27	She doesn't play in the ...	
	2	**69**	**2,9%**	
inflection error	4	24	A and D doesn't work/don't works	14,49% (n=10)
	1	18	My mum and dad doesn't go	
	5	27	The children doesn't play/don't plays	
	10	**69**	**14,49%**	
verb type	1	24	A and D aren't work	
	1	18	My mum and dad aren't go	
	-	27		
	2	**69**	**2,9%**	4,35% (n=3)
[-do-support]	1	24	A and D work not	
	-	18		
	-	27		
	1	**69**	**1,45%**	

3rd sing. complex NP [*do*-support]

correct	6	25	My black baby dog doesn't drink ...	49,23% (n=32)
	4	17	Dan and Jo's father doesn't go to ...	
	7	23	Our English teacher doesn't speak ...	
	17	**65**	**26,15%**	
positive statement	5	25	My black baby dog drinks ...	
	5	17	Dan and Jo's father goes to ...	
	4	23	Our English teacher speaks ...	
	14	**65**	**21,54%**	
wrong subject	-	25		
	1	17	They don't work	
	-	23		
	1	**65**	**1,54%**	
inflection error	11	25	doesn't/don't drinks	
	6	17	doesn't/don't goes	
	12	23	doesn't/don't speaks	
	29	**65**	**44,62%**	
word order	2	25	My [...] dog drinks don't/doesn't	49,23% (n=32)
	-	17		
	-	23		
	2	**65**	**3,08%**	
constituent fragmentation	-	25		
	1	17	Dan and Jo's don't father goes	
	-	23		
	1	**65**	**1,54%**	
[-do-support]	1	25	My [...] dog drinks not	1,54% (n=1)
	-	17		
	-	23		
	1	**65**	**1,54%**	

3rd sing. simple NP [*do*-support]

correct	9	27	Tina doesn't get up at ...	44,93% (n=31)
	8	22	She doesn't feed her rabbit	
	5	18	Marc doesn't watch TV	
	22	**67**	**32,84%**	
positive statement	3	27	Tina gets up at ...	
	3	22	She feeds her rabbit ...	
	3	18	Marc watches ...	
	9	**67**	**13,43%**	
word order	-	27		50,72% (n=35)
	1	22	She feeds doesn't	
	-	18		
	1	**67**	**1,49%**	
inflection error	15	27	Tina doesn't/don't gets up	
	9	22	She doesn't feeds	
	10	18	Marc doesn't/don't watches	
	34	**67**	**50,75%**	
verb type	-	27		1,49% (n=1)
	1	22	She aren't feeds	
	-	18		
	1	**67**	**1,49%**	

3rd singular [*do*-support]

correct	19	25	He doesn't go		
	10	23	Tina doesn't bring		
	12	19	Dan and Jo's father doesn't go		
	41	**67**	**61,19%**		**62,69% (n=42)**
wrong subject	1	25	I don't go		
	-	23			
	-	19			
	1	**67**	**1,49%**		
inflection error	4	25	He doesn't goes		
	13	23	Tim doesn't brings		
	4	19	Dan and Jo's father doesn't goes		
	21	**67**	**31,34%**		**34,33% (n=23)**
word order	1	25	He goes don't		
	-	23			
	1	19	Dan and Jo's father goes don't		
	2	**67**	**2,99%**		
verb type	-	25			
	-	23			
	1	19	He isn't go to work		
	1	**67**	**1,49%**		**2,99% (n=2)**
[-do-support]	1	25	He not go to ...		
	-	23			
	-	19			
	1	**67**	**1,49%**		

3rd plural [*do*-support]

correct	24	25	They don't play in the kitchen		
	20	24	They don't work		
	17	20	They don't do yoga		
	19	24	Your grandparents don't live in DA.		
	80	**93**	**86,02%**		**89,25% (n=83)**
semantic equivalent	1	25	They never work in the shop		
	-	24			
	-	20			
	-	24			
	1	**93**	**1,08%**		
wrong subject	-	25			
	-	24			
	-	20			
	1	24	She doesn't live in DA		
	1	**93**	**1,08%**		
positive statement	-	25			
	-	24			
	1	20	They do yoga		
	-	24			
	1	**93**	**1,08%**		
inflection error	1	25	They don't plays		
	1	24	They doesn't work		
	1	20	They doesn't do		
	2	24	Your grandparents doesn't live in DA.		
	5	**93**	**5,38%**		**6,45% (n=6)**
word order	-	25			
	1	24	They work don't ...		
	-	20			
	-	24			
	1	**93**	**1,08%**		
verb type	-	25			
	1	24	They aren't work		
	1	20	They aren't do		
	-	24			
	2	**93**	**2,15%**		**4,3% (n=4)**
[-do-support]	-	25			
	-	24			
	-	20			
	2	24	They not live		
	2	**93**	**2,15%**		

have got + not

correct	19	25	The Kapoors haven't got a house		
	17	25	You haven't got a new phone		
	19	24	I haven't got a piano		
	16	24	He hasn't got an elephant		
	17	22	Jack's parents haven't got a ...		**73,33% (n=88)**
	88	**120**	**73,33%**		
erroneous verb form	-	25			
	-	25			
	-	24	He haven't got		**0,83% (n=1)**
	-	22			
	1	**120**	**0,83%**		
negation type [+verb]	6	25	The Kapoors don't/doesn't have got		
	8	25	You don't have got a new ...		
	5	24	I don't have got a piano		
	7	24	He doesn't have got an ...		
	4	22	Jack's parents don't have got		**25,83% (n=31)**
	30	**120**	**25%**		
negation type [constituent fragmentation]	-	25			
	-	25			
	-	24			
	1	22	Jack's don't parents have got		
	1	**120**	**0,83%**		

1st/2nd sing./pl.

correct	23	25	I/You don't get up		
	18	24	You don't go		
	18	23	I/You don't drink		
	19	22	You don't write		**86,17% (n=81)**
	78	**94**	**82,98%**		
semantic equivalent	-	25			
	1	24	You never go ...		
	-	23			
	2	22	You never write		
	3	**94**	**3,19%**		
inflection error	2	25	I doesn't get up		
	4	24	You doesn't go		
	3	23	I don't drinks/doesn't drink		
	-	22			
	9	**94**	**9,57%**		**11,7% (n=11)**
word order	-	25			
	1	24	You go don't		
	1	23	You drink don't		
	-	22			
	2	**94**	**2,13%**		
verb type	-	25			
	-	24			
	1	23	I aren't drink		**2,13% (n=2)**
	1	22	I aren't write		
	2	**94**	**2,13%**		

BE + not

correct	8	25	I'm not from ZA		
	10	24	You aren't our German teacher		
	14	22	The blue pencil case isn't in the ...		**47,89% (n=34)**
	32	**71**	**45,07%**		
semantic alternative	2	25	You don't come from ...		
	-	24			
	-	22			
	2	**71**	**2,82%**		
erroneous verb form	-	25			
	-	24			
	1	22	The blue pencil case aren't ...		**4,22% (n=3)**
	1	**71**	**1,41%**		
copula omission	-	25			
	2	24	You not our German teacher		
	-	22			
	2	**71**	**2,82%**		
negation type [+copula]	1	25	You don't are ...		
	1	24	You don't are ...		
	2	22	It don't is ...		
	4	**71**	**5,63%**		
negation type [copula omission]	11	25	You don't from ZA		
	7	24	You don't our teacher		
	2	22	It don't in the kitchen		**47,89% (n=34)**
	20	**71**	**28,17%**		
negation type [word order]	2	25	You are don't ...		
	4	24	You are don't ...		
	1	22	It is don't in the kitchen		
	7	**71**	**9,86%**		
negation type [constituent fragmentation]	1	25	Are you doesn't from ZA		
	-	24			
	2	22	don't the blue [...] is in the kitchen		**4,23%**
	3	**71**	**4,23%**		

can + not

correct	19	25	We can't speak Japanese		
	20	25	Polly can't talk		
	16	19	The English teacher can't play footb.		**85,51% (n=59)**
	55	**69**	**79,71%**		
semantic equivalent	2	25	We don't speak Japanese		
	-	25			
	1	19	The teacher doesn't play ...		
	3	**69**	**4,35%**		
wrong subject	-	25			
	1	25	I can't talk ...		
	-	19			
	1	**69**	**1,45%**		
negation type [+modal]	3	25	We don't can speak		
	4	25	Polly don't can talk		
	2	19	The teacher don't can play		**14,49% (n=10)**
	9	**69**	**13,04%**		
negation type [word order]	1	25	We can don't speak		
	-	25			
	-	19			
	1	**69**	**1,45%**		

Check your English

Name: _____

Setze die unterstrichenen Verben in die Vergangenheit:

It isn't raining today. It ___*rained*___ yesterday.

She doesn't love flowers. She ____*loved*___ them years ago.

1. Today I don't want to play football,
   because I _____ yesterday.
2. We normally go to France,
   but last summer we _____ to Spain.
3. You're painting?
   Where is the last picture you _____?
4. Ships usually sink in some hours,
   but this ship _____ at night.
5. Mary pits every day.
   Last month she _____ four times!
6. You don't have to learn the vocabulary.
   You _____ them yesterday.
7. My brother doesn't like cartoons,
   but he _____ them some years ago.
8. I spink every day!
   I _____ yesterday too!
9. We don't travel much.
   But last summer, we _____ to England.
10. Don't spit!
    Years ago only stupid people _____.
11. I don't speak to him,
    but yesterday he _____ to me.
12. My mother plants beautiful flowers.
    Last year, she _____ daisies.
13. I hate waiting at the doctor's.
    Last month, we _____ too long!
14. They see the mountains from their hotel.
    One year ago, they _____ the beach.
15. People don't think too much.
    When I was young they _____ a lot.
16. Our teachers never shout.
    My parents' teachers _____ very much.
17. My sister splings the dishes.
    Yesterday she _____ them.
18. Where do you stay?
    Last year we _____ in a hotel.
19. I can't drink coffee.
    I _____ some coffee years ago but it wasn't good.
20. John never reads books.
    In the holidays he _____ only magazines.
21. You don't walk to school?
    When I was young I _____ all the time.
22. I don't scream.
    But yesterday there was a big spider, so I _____.
23. My parents don't fring the house today.
    They _____ it last month.
24. We can't talk today
    because we _____ a lot yesterday.
25. My brother sings well.
    When he was young he _____ every day.
26. She doesn't have to clean the floor.
    John _____ it yesterday.
27. Let's tig today.
    I can't remember when we _____ the last time.
28. No work!
    I'm on holiday because I _____ a lot last year.
29. My parents don't fly,
    but this holidays we _____ to Italy.
30. Don't bink your homework!
    You _____ them yesterday.

weak, knwon						
	weak (target-like)	play	28	28	played	94,34% (n=200)
		clean	27	27	cleaned	
		work	25	26	worked	
		talk	21(3)	24	talked (talket)	
		travel	23(3)	26	travelled (traveled)	
		stay	27(3)	27	stayed (staied)	
		walk	26	28	walked	
		like	22	26	liked	
			199	**212**	**93,87%**	
	semantic equivalent	play	-	28		
		clean	-	27		
		work	-	26		
		talk	-	24		
		travel	-	26		
		stay	-	27		
		walk	1	28	went	
		like	-	26		
			1	**212**	**0,47%**	
	confusion	play	-	28		5,66% (n=12)
		clean	-	27		
		work	-	26		
		talk	3	24	took	
		travel	-	26		
		stay	-	27		
		walk	-	28		
		like	-	26		
			3	**212**	**1,42%**	
	zero-marking	play	-	28		
		clean	-	27		
		work	1	26	work	
		talk	-	24		
		travel	2	26	travel	
		stay	-	27		
		walk	1	28	walk	
		like	2	26	like	
			6	**212**	**2,83%**	
	morphological error	play	-	28		
		clean	-	27		
		work	-	26		
		talk	-	24		
		travel	1	26	traved	
		stay	-	27		
		walk	-	28		
		like	2	26	likesed	
			3	**212**	**1,42%**	

weak, novel						
	weak (target-like)	shout	26	26	shouted	83,97% (n=131)
		scream	22	25	screamed	
		plant	18	26	planted	
		learn	27	28	learned	
		paint	20	25	painted	
		wait	18	26	waited	
			131	**156**	**83,97%**	
	zero-marking	shout	-	26		16,03% (n=25)
		scream	3	25	scream	
		plant	-	26		
		learn	1	28	learn	
		paint	2	25	paint	
		wait	4	26	wait	
			10	**156**	**6,41%**	
	morphological error	shout	-	26		
		scream	-	25		
		plant	8	26	plantsed	
		learn	-	28		
		paint	3	25	paintinged	
		wait	4	26	waitinged	
			15	**156**	**9,62%**	

strong, known						
	[+ablaut] correct	go	18	27	went	49,62% (n=66)
		speak	6	27	spoke	
		see	11	26	saw	
		fly	6	25	flew	
		read	6	28	read	
			47	**133**	**35,34%**	
	[+ablaut] orthography	go	1	27	waint	
		speak	3	27	spoak, spook	
		see	2	26	soe, saa	
		fly	4	25	flow	
		read	4	28	red, rad	
			14	**133**	**10,53%**	
	[+ablaut] double marking	go	3	27	wented	
		speak	1	27	spoked	
		see	-	26		
		fly	1	25	flewed	
		read	-	28		
			5	**133**	**3,76%**	
	[-ablaut] weak	go	4	27	goed	50,38% (n=67)
		speak	17	27	speaked	
		see	7	26	seed	
		fly	11	25	flied	
		read	14	28	readed	
			53	**133**	**39,85%**	
	[-ablaut] morphological error	go	-	27		
		speak	-	27		
		see	-	26		
		fly	-	25		
		read	2	28	readinged	
			2	**133**	**1,5%**	
	[-ablaut] zero-marking	go	1	27	go	
		speak	-	27		
		see	6	26	see	
		fly	3	25	fly	
		read	2	28	read	
			12	**133**	**9,02%**	

strong, novel						
	[+ablaut] correct	sink	-	26		2,33% (n=3)
		spit	-	24		
		think	-	26		
		sing	1	26	sang	
		drink	2	27	drank	
			3	**129**	**2,33%**	
	[-ablaut] weak	sink	25	26	sinked	97,67% (n=126)
		spit	24	24	spitted	
		think	26	26	thinked	
		sing	17	26	singed	
		drink	25	27	drinked	
			117	**129**	**90,7%**	
	[-ablaut] zero-marking	sink	1	26	sink	
		spit	-	24		
		think	-	26		
		sing	1	26	sing	
		drink	-	27		
			2	**129**	**1,55%**	
	[-ablaut] morphological error	sink	-	26		
		spit	-	24		
		think	-	26		
		sing	7	26	singsed	
		drink	-	27		
			7	**129**	**5,43%**	

nonce verbs						
	[-ablaut] weak	spink	26	26	spinked	100% (n=122)
		bink	25	25	binked	
		tig	25	26	tigged	
		fring	24	26	fringed	
		spling	15	24	splinged	
		pit	7	25	pitted	
			122	**152**	**80,26%**	
	[-ablaut] zero-marking	spink	-	26		
		bink	-	25		
		tig	1	26	tig	
		fring	2	26	fring	
		spling	3	24	spling	
		pit	5	25	pit	
			11	**152**	**7,24%**	
	[-ablaut] morphological error	spink	-	26		
		bink	-	25		
		tig	-	26		
		fring	-	26		
		spling	6	24	splingsed	
		pit	13	25	pitsed	
			19	**152**	**12,5%**	

strog, known

[+ablaut] correct	fly	14	26	flew			
	speak(ing)	9	27	spoke			
	see	18	25	saw			
	think	4	22	thought			
	drink	20	27	drank			
	find(s)	7	21	found			
	sing(s)	8	25	sang			
		80	**173**	**46,24%**			
[+ablaut] morphological error	fly	-	26				
	speak(ing)	1	27	spokeing			
	see	-	25				
	think	-	22				
	drink	-	27				
	find(s)	3	21	founds			
	sing(s)	2	25	sangs			
		6	**173**	**3,47%**			**65,9% (n=114)**
[+ablaut] orthography	fly	7	26	flow/flue			
	speak(ing)	8	27	spook/spouk			
	see	-	25				
	think	1	12	thoght			
	drink	-	27				
	find(s)	-	21				
	sing(s)	-	25				
		16	**173**	**9,25%**			
[+ablaut] alternative ablaut	fly	-	26				
	speak(ing)	-	27				
	see	1	25	sea			
	think	3	22	thank/thonk			
	drink	2	27	drunk/dronk			
	find(s)	3	21	fond/fand			
	sing(s)	-	25				
		9	**173**	**5,2%**			
[+ablaut] double-marking	fly	-	26				
	speak(ing)	2	27	spoked			
	see	-	25				
	think	-	22				
	drink	1	27	dranked			
	find(s)	-	21				
	sing(s)	-	25				
		3	**173**	**1,73%**			
[-ablaut]	fly	4	26	flyed/flied			
	speak(ing)	5	27	speaked			
	see	5	25	seed			
	think	13	22	thinked			
	drink	4	27	drinked			
	find(s)	5	21	finded			
	sing(s)	12	25	singed			
		48	**173**	**27,75%**			**34,1% (n=59)**
[-ablaut] morphological error	fly	-	26				
	speak(ing)	2	27	speakinged			
	see	-	25				
	think	-	22				
	drink	-	27	findsed			
	find(s)	1	21				
	sing(s)	1	25	singsed			
		4	**173**	**2,31%**			
[-ablaut] zero-marking	fly	-	26				
	speak(ing)	-	27				
	see	1	25	see			
	think	-	22				
	drink	-	27				
	find(s)	2	21	find			
	sing(s)	1	25	sings			
		4	**173**	**2,31%**			

weak, known

weak (target-like)	stay(ing)	18(2)	24	stayed (staied)			
	walk	24	26	walked			
	talk	20	26	talked			
	play	25(7)	27	played (plaied)			
	design	21	23	designed			
		108	**126**	**85,71%**			**88,1% (n=111)**
morphological error	stay(ing)	2	24	stayded			
	walk	-	26				
	talk	-	26				
	play	-	27				
	design	-	23				
		2	**126**	**1,59%**			
semantic alternative	stay(ing)	-	24				
	walk	-	26				
	talk	-	26				
	play	-	27				
	design	1	23	drew			
		1	**126**	**0,79%**			
zero-marking	stay(ing)	2	24	staying			
	walk	1	26	walk			
	talk	2	26	talk			**6,35% (n=8)**
	play	2	27	play			
	design	1	23	design			
		8	**126**	**6,35%**			
confusion	stay(ing)	1	24	stand			
	walk	1	26	went			
	talk	4	26	took/told			
	play	-	27				
	design	-	23				
		6	**126**	**4,76%**			**5,56% (n=7)**
[+ablaut]	stay(ing)	**1**	24	stoy			
	walk	-	26				
	talk	-	26				
	play	-	27				
	design	-	23				
		1	**126**	**0,79%**			

weak (target-like)	yawn(ing)	7(1)	19	yawned (yawed)			
	mark	23	25	marked			
	plant(s)	11	19	planted			
	shout(s)	19	24	shouted			
	ask(ing)	19	23	asked			**88,18% (n=97)**
		79	**110**	**71,82%**			
morphological error	yawn(ing)	10	19	yawninged			
	mark	-	25				
	plant(s)	3	19	plantsed			
	shout(s)	4	24	shoutsed			
	ask(ing)	1	23	askinged			
		18	**110**	**16,36%**			
zero-marking	yawn(ing)	2	19	yawning			
	mark	2	25	mark			
	plant(s)	5	19	plant/plants			**11,82% (n=13)**
	shout(s)	1	24	shout			
	ask(ing)	3	23	asking/ask			
		13	**110**	**11,82%**			

nonce

[+ablaut] prototype	pit(s)	-	22	spank			
	spink	5	22	splang			
	splin(s)	1	20	frang			
	fring	5	20	tug			
	tig	5	23	bank			
	bink	4	22				
		20	**129**	**15,5%**			
[+ablaut] morphological error	pit(s)	5	22	pats			
	spink	-	22				
	splin(s)	1	20	splangs			
	fring	-	20				
	tig	-	23				
	bink	-	22				25,58% (n=33)
		6	**129**	**4,65%**			
[+ablaut] alternative ablaut	pit(s)	-	22				
	spink	2	22	sponk			
	splin(s)	-	20				
	fring	2	23	tog			
	tig	1	22	bonk			
	bink						
		5	**129**	**3,88%**			
[+ablaut] double-marking	pit(s)	1	22	patsed			
	spink	1	22	spanked			
	splin(s)	-	20				
	fring	-	23				
	tig	-	22				
	bink	-					
		2	**129**	**1,55%**			
[-ablaut]	pit(s)	9	22	pitted (pited)			
	spink	14	22	spinked			
	splin(s)	10	20	splinked			
	fring	14	20	fringed			
	tig	13	23	tigged (tiged)			
	bink	17	22	binked			
		78	**129**	**60,47%**			
[-ablaut] morphological error	pit(s)	4	22	pitsed			
	spink	-	22				
	splin(s)	5	20	splingsed			
	fring	-	20				
	tig	-	23				
	bink	-	22				74,42% (n=96)
		9	**129**	**6,98%**			
[-ablaut] zero-marking	pit(s)	2	22	pits			
	spink	-	22				
	splin(s)	3	20	splin, splings			
	fring	1	20	fring			
	tig	2	23	tig			
	bink	-	22				
		8	**129**	**6,2%**			
[-ablaut] suffix	pit(s)	-	22				
	spink	-	22				
	splin(s)	-	20				
	fring	-	20				
	tig	1	23	tigs			
	bink	-	22				
		1	**129**	**0,78%**			

strong, novel

[-ablaut] suffix	fly	-	26				
	speak(ing)	-	27				
	see	-	25				
	think	1	22	thinks			
	drink	-	27				
	find(s)	-	21				
	sing(s)	1	25	singing			
		2	**173**	**1,16%**			
[-ablaut] alternative	fly	1	26	didn't fly			
	speak(ing)	-	27				
	see	-	25				
	think	-	22				
	drink	-	27				
	find(s)	-	21				
	sing(s)	-	25				
		1	**173**	**0,58%**			
[+ablaut] correct	sink	14	26	sank			
	steal	3	22	stole			
	ring	10	24	rang			
	bring	1	24	brought			
	fall	1	22	fell			
	spit	5	22	spat			
		34	**139**	**24,96%**			
[+ablaut] orthography	sink	-	26				
	steal	2	22	stoal, stoeal			
	ring	-	24				
	bring	1	24	braught			
	fall	-	22				
	spit	-	22				35,25% (n=49)
		3	**139**	**2,16%**			
[+ablaut] alternative ablaut	sink	-	26				
	steal	-	22				
	ring	-	24				
	bring	8	24	brang, brong			
	fall	-	22				
	spit	3	22	spot			
		11	**139**	**7,91%**			
[+ablaut] double-marking	sink	-	26				
	steal	-	22				
	ring	1	24	ranged			
	bring	-	24				
	fall	-	22				
	spit	-	22				
		1	**139**	**0,72%**			
[-ablaut]	sink	12	26	sinked			
	steal	16	22	steaked			
	ring	13	24	ringed			
	bring	14	24	bringed			
	fall	19	22	falled			
	spit	15	22	spitted (spited)			
		89	**139**	**63,31%**			65,47% (n=91)
[-ablaut] zero-marking	sink	-	26				
	steal	1	22	steal			
	ring	-	24				
	bring	-	24				
	fall	1	22	fall			
	spit	-	22				
		2	**139**	**1,44%**			

strong, known

[+ablaut] correct	drive	15	25	drove						
	speak(ing)	8	25	spoke						
	see(ing)	12	24	saw						
	think	9	25	thought						
	drink	16	25	drank						
	find(s)	8	24	found						
	sing(s)	8	24	sang						
		76	172	44,19%						
[+ablaut] morphological error	drive	-	25	spoking						66,28% (n=114)
	speak(ing)	5	25	sawing						
	see(ing)	3	24							
	think	-	25							
	drink	-	25							
	find(s)	3	24	founds						
	sing(s)	7	24	sangs						
		18	172	10,47%						
[+ablaut] orthography	speak(ing)	1	25	spouk						
	think	1	25	thoug						
	other verbs	-	122							
		2	172	1,16%						
[+ablaut] alternative ablaut	drive	1	25	draw						
	speak(ing)	3	25	spook						
	see(ing)	1	24	saiw						
	think	5	25	thank/thonk						
	drink	2	25	dronk						
	find(s)	3	24	fond/fand						
	sing(s)	1	24	song						
		16	172	9,3%						
[+ablaut] double marking	drive	-	25							
	speak(ing)	1	25	spoked						
	see(ing)	-	24							
	think	-	25							
	drink	1	25	dranked						
	find(s)	-	24							
	sing(s)	-	24							
		2	172	1,16%						
[-ablaut]	drive	8	25	drived						33,72% (n=58)
	speak(ing)	5	25	speaked						
	see(ing)	3	24	seed						
	think	9	25	thinked						
	drink	5	25	drinked						
	find(s)	8	24	finded						
	sing(s)	4	24	singed						
		44	172	22,58%						
[-ablaut] morphological error	drive	-	25							
	speak(ing)	-	25							
	see(ing)	2	24	seeinged						
	think	-	25							
	drink	-	25							
	find(s)	1	24	findsed						
	sing(s)	-	24							
		3	172	1,74%						
[-ablaut] zero-marking	drive	1	25	drive						
	speak(ing)	2	25	speak/speaking						
	see(ing)	3	24	see/seeing						
	think	1	25	think						
	drink	-	25							
	find(s)	1	24	finds						
	sing(s)	2	24	sing/sings						
		10	172	5,81%						
[-ablaut] suffix	drink	1	25	drinking						
	other verbs	-	147							
			172	0,58%						

weak, known

weak [target-like]	play	25(4)	25	played (plaied)						
	design	23	23	designed						
	stay(ing)	16(3)	21	stayed (staied)						
	walk	23	24	walked						
	talk	22(1)	24	talked (taaked)						94,87% (n=111)
		109	117	93,16%						
morphological error	play	-	25							
	design	-	23							
	stay(ing)	2	21	stayinged						
	walk	-	24							
	talk	-	24							
		2	117	1,71%						
confusion	play	-	25							
	design	-	23							
	stay(ing)	-	21	stood						
	walk	-	24							
	talk	2	24							5,13% (n=6)
		2	117	1,71%						
zero-marking	play	-	25							
	design	-	23							
	stay(ing)	3	21	stay						
	walk	1	24	walk						
	talk	-	24							
		4	117	2,34%						

weak, novel

weak [target-like]	yawn(ing)	7	24	yawned						
	mark	24	25	marked						
	plant(s)	9	23	planted						
	shout(s)	17	24	shouted						
	ask(ing)	22	24	asked						87,5% (n=105)
		79	120	65,83%						
morphological error	yawn(ing)	10	24	yawninged						
	mark	-	25							
	plant(s)	9	23	plantsed						
	shout(s)	5	24	shoutsed						
	ask(ing)	2	24	askinged						
		26	120	21,67%						
zero-marking	yawn(ing)	7	24	yawn						
	mark	1	25	mark						
	plant(s)	4(1)	23	plant (plants)						
	shout(s)	2(1)	24	shout (shouts)						12,5% (n=15)
	ask(ing)	-	24							
		14	120	11,67%						
ablaut	yawn(ing)	-	24							
	mark	-	25							
	plant(s)	1	23	plont						
	shout(s)	-	24							
	ask(ing)	-	24							
		1	120	0,83%						

nonce verbs	[+ablaut] target-like	pit(s)	1	24	pat	23,19% (n=32)
		sping	5	25	spang	
		spling(s)	-	20		
		wring	4	22	wramg	
		tig	1	23	tag	
		vink	3	24	vank	
			14	**138**	**10,14%**	
	[+ablaut] morphological error	pit(s)	2	24	pats	
		sping	-	25		
		spling(s)	1	20	splangs	
		wring	-	22		
		tig	-	23		
		vink	-	24		
			3	**138**	**2,17%**	
	[+ablaut] alternative ablaut	pit(s)	2	24	put	
		sping	3	25	sponk, spunk	
		spling(s)	1	20	splong	
		wring	5	22	wrong	
		tig	2	23	tug, tog	
		vink	1	24	vonk	
			14	**138**	**10,14%**	
	[+ablaut] double-marking	pit(s)	-	24		
		sping	-	25		
		spling(s)	1	20	splanged	
		wring	-	22		
		tig	-	23		
		vink	-	24		
			1	**138**	**0,72%**	
	[-ablaut]	pit(s)	5	24	pitted (pited)	76,81% (n=106)
		sping	17	25	spinged	
		spling(s)	11	20	splinged	
		wring	12	22	wringed	
		tig	20	23	tigged (tiged)	
		vink	20	24	vinked	
			85	**138**	**61,59%**	
	[-ablaut] morphological error	pit(s)	10	24	pitsed	
		sping	-	25		
		spling(s)	5	20	splingsed	
		wring	-	22		
		tig	-	23		
		vink	-	24		
			15	**138**	**10,87%**	
	[-ablaut] zero-marking	pit(s)	4	24	pit(s)	
		sping	-	25		
		spling(s)	1	20	spling(s)	
		wring	1	22	wring	
		tig	-	23		
		vink	-	24		
			6	**138**	**4,35%**	

strong, novel	[+ablaut] correct	sink	9	24	sank	39,58% (n=57)
		steal	3	23	stole	
		ring	9	25	rang	
		bring	7	25	brought	
		grow(ing)	-	23		
		spit	2	24	spat	
			30	**144**	**20,83%**	
	[+ablaut] morphological error	sink	-	24		
		steal	-	23		
		ring	-	25		
		bring	-	25		
		grow(ing)	5	23	grewing	
		spit	-	24		
			5	**144**	**3,47%**	
	[+ablaut] orthography	sink	-	24		
		steal	1	23	stoal	
		ring	-	25		
		bring	-	25		
		grow(ing)	-	23		
		spit	-	24		
			1	**144**	**0,69%**	
	[+ablaut] alternative ablaut	sink	3	24	sunk/sonk	
		steal	2	23	stool/stold	
		ring	2	25	rong	
		bring	11	25	brang/brong	
		grow(ing)	1	23	graw	
		spit	1	24	sput	
			20	**144**	**13,89%**	
	[+ablaut] double-marking	sink	-	24		
		steal	1	23	stolded	
		ring	-	25		
		bring	-	25		
		grow(ing)	-	23		
		spit	-	24		
			1	**144**	**0,69%**	
	[-ablaut]	sink	11	24	sinked	60,41% (n=87)
		steal	13	23	stealed	
		ring	14	25	ringed	
		bring	5	25	bringed	
		grow(ing)	11	23	growed	
		spit	18	24	spitted (spited)	
			72	**144**	**50%**	
	[-ablaut] morphological error	sink	-	24		
		steal	-	23		
		ring	-	25		
		bring	-	25		
		grow(ing)	6	23	growinged	
		spit	-	24		
			6	**144**	**4,17%**	
	[-ablaut] zero-marking	sink	-	24		
		steal	3	23	steal	
		ring	-	25		
		bring	2	25	bring	
		grow(ing)	-	23		
		spit	3	24	spit	
			8	**144**	**5,56%**	
	[-ablaut] suffix	sink	1	24	sinking	
		steal	-	23		
		ring	-	25		
		bring	-	25		
		grow(ing)	-	23		
		spit	-	24		
			1	**144**	**0,69%**	

Abstract (English)

Even though the need of uniting findings of linguistic research in second language acquisition (SLA) and language pedagogy has been expressed by recent studies, both fields are still largely separated and do not sufficiently acknowledge what they could teach each other. EFL textbooks reduce the role of grammar to a minimum and concentrate on communication in the classroom. On the one hand, this makes sense as the ultimate goal of foreign language learning is communicative competence; on the other hand, textbooks tend to ignore the crucial role of grammar as the instrument of mastering a language. Grammar practice activities lack the insight into what learners find difficult. The knowledge of processes in L2 acquisition and interlanguage development contributes not only to identifying potential error sources, but also to promoting foreign language learning and teaching.

As IL systems are dynamic, non-linear systems which are constantly being restructured, the learners' errors and their development become analysable. Learner responses show variability, indicating their attempts to figure out the target-like rule. This dissertation focusses on the acquisition of (a) the copula *be*; (b) negative statements and (c) past tense formation. For each area, several questionnaires were developed, the responses were analysed both quantitatively and qualitatively, the IL development for the structure in question was determined and potential error sources were identified. The knowledge of what learners struggle with in the course of acquisition can improve current teaching materials, enable adequate interventions and provide the learners with appropriate tasks for practicing their language skills. The results of the study show that incorporating linguistic findings into the compilation process of textbooks proves constructive for second language teaching.