

From: Burmeister, Petra; Piske, Thorsten; Rohde, Andreas (Eds.): *An Integrated View of Language Development. Papers in Honor of Henning Wode*, Wissenschaftlicher Verlag Trier, 2002.  
ISBN 3-88476-488-8. [www.wvttrier.de](http://www.wvttrier.de)

## **The acquisition of English verbs in an elementary school immersion program in Germany**

*Kristin Kersten, Christine Imhoff & Bianca Sauer*

### **0. Introduction**

For some 10 years, Henning Wode has encouraged and supervised several immersion (IM) programs in Schleswig-Holstein, northern Germany. It is mainly due to his initiative that these programs are now firmly established in several northern German institutions.

This paper is concerned with the latest of these institutions to have adopted bilingual education, the Claus-Rixen elementary school in Kiel-Altenholz. It aims at presenting the development of the acquisition of verbs and verbal inflections of the first cohort after one and after two years of schooling. So far, a preliminary analysis of 12 subjects has been carried out. The speech samples have been elicited with the help of a picture story, the well-known *frog story* (Mayer 1969). The present study carried out by Henning Wode and his research team – although still in its initial stages – is of particular relevance with regard to the efficiency of early partial IM programs as, to our knowledge, no morphological study of a German-English immersion setup of this age group has yet been conducted.

### **1. The Kiel Immersion Project**

#### **1.1 General setup and objectives**

The *Kiel IM Project* consists of three sections: Firstly, the partial IM program at academic secondary schools implemented in 1991 (Burmeister & Daniel, this volume), secondly, early English IM, which was introduced in a monolingual German preschool in Kiel in 1996 (Rohde & Tiefenthal, this volume), following the example of a successful French-German IM pilot project in Rostock, Germany, in 1995. Thirdly, in September 1999, the project was expanded to the Claus-Rixen elementary school in Kiel-Altenholz.

The overall objective of the *Kiel IM Project* is to start introducing one (or several) second language(s) via IM at a point as early as possible in childhood, and to continue teaching it throughout elementary and high school. Wode (2000) criticizes the

introduction of an L2 in secondary schools as it allows for only one L2 to be learned on a functionally appropriate level. He recommends the introduction of an L2 as early as preschool, since research has shown that young children profit from multilingualism (Wode 1981, 1988/1993, 1995)<sup>1</sup> and are usually more successful in acquiring an L2 than older learners (Johnson & Newport 1989, Flege et al. 1995, Flege et al. 1999).

In his most recent work, Wode advocates a setup which he calls the 3+-formula (Wode 2000, Wode et al. 2001) and which comes close to what we find achieved in the Luxemburg school system. The 3+-formula refers to a setup of trilingual education in which children are able to learn (at least, i.e., "+") 3 languages during their time of schooling, namely their L1 and two additional languages. One of these is supposed to be introduced in preschool and continued through elementary school, whereas the second is supposed to start in secondary school.

## **1.2 The elementary school IM program**

The IM program was introduced in the Claus-Rixen elementary school in September 1999. The program represents a partial IM setup, which means that all subject matter, apart from German, is taught in the L2 (English).<sup>2</sup> This adds up to about 60% English and 40% German, so that both languages are promoted. This was especially important to the parents of the first cohort since they feared that their children's L1 might suffer from an all-English exposure.

In the preschools, the "one person – one language principle" (Döpke 1992) is applied, which means that each group is supervised by a native speaker of the L1 (German) and a native speaker of the L2 (English). By contrast, the teachers in the elementary program are native speakers of German. All of them are trained as elementary school teachers and have a degree in English.

During the first year, children are allowed to speak German, but English is especially encouraged. During the second year, the objective is to use English only. Reading in English is introduced in second grade, though English words are already playfully introduced in grade one. Once writing in the L1 is established, L2 writing is introduced in grade three. There are no grades and tests on the L2, nevertheless tests in the subject matter, apart from German, are given in English. Focus on grammatical form within subject matter teaching occurs, but is less frequent than in traditional language teaching. However, corrections in the form of direct feedback are given from time to time as the teachers see fit. In the second year, one lesson per week is attributed to the introduction of grammatical structures. During these, the teacher focuses on topics of

---

1 The only restriction Wode (1995) makes in this context is the case of some minority children whose L1 has a low socio-economic status and may not be mastered in a native-like fashion.

2 In the first year, religious education was also taught in German, but this was changed in the second year, when a second L2 teacher was hired.

grammar which tend to be difficult to acquire, such as *this/that*, *these/those*, *is/are*, *has/have* distinctions, or the 3<sup>rd</sup> ps sg -s, as well as regular and irregular past tense forms.

So far, data from two cohorts have been elicited. This paper will only focus on the data elicited from the first cohort consisting of 18 children. Half of the children have prior knowledge of English from the preschool IM program; they are therefore referred to as 'experienced bilinguals' (*exp*). The other children mainly come from monolingual German families with monolingual preschool experience; they are thus termed 'inexperienced bilinguals' (*inexp*). The data of 12 of these pupils were analyzed after their first year (Lauer & Hansen 2001). The subjects were chosen with respect to a) their language background and b) our judgment of the different ranges of ability: Six children performed above, and six children below average.

Comparable to what has been observed in the IM preschool, the children very quickly developed a high level of comprehensive abilities (see Berger 1999; Lauer 1999a,b; Tiefenthal 1999; Tonn 1999; Wode et al. 1999; Maibaum 2000; Rohde 2001; Kersten, in prep.; Rohde & Tiefenthal, this volume, for analyses examining preschool children; see also Wode 1981, 1996, 1998a,b, 2001; Weber & Tardif 1991; Petit & Rosenblatt 1994; Petit 1996 and Petit, this volume), but in contrast to the preschool, the children learned at a much higher rate in elementary school. Production appeared much earlier and very soon reached a much higher level of complexity than in the preschool.

## 2. Research objectives and test design

The overall objective of the evaluation is to document the children's linguistic development in the course of the first four years of the pilot school experiment in the structural fields of lexical, morphosyntactic and phonological acquisition. We intended to check upon the subjects' spontaneous speech behavior. Since this is not easy to test, especially for reasons of comparability, extemporaneous speech samples were elicited by means of the *frog story*.

The study is designed as a longitudinal one involving testing at the end of each year in elementary school and using the same test material each year. In first grade, the procedure is introduced with a pilot test ("A boy, a dog, and a frog", Mayer 1967).<sup>3</sup> The test ("Frog, where are you?", Mayer 1969)<sup>4</sup> is conducted with each cohort close to the end of every school year. Monolingual peer classes serve as comparison groups ("A boy, a dog, a frog and a friend", Mayer & Mayer [no year given]; this test is also conducted in German with the IM classes). Data from an English native comparison group will be collected in addition to the data already elicited from American first graders, who serve as comparison group at this preliminary stage of the analysis. The

---

3 See Hansen (2000) for an analysis of the pilot test of the 1<sup>st</sup> cohort.

4 See Berman & Slobin (1994) for an overview of research carried out with the help of the *frog story*.

data from the American first grade come from an elementary school in St. Paul, Minnesota.<sup>5</sup>

The data presented here derive from the main test conducted after 10 months,<sup>6</sup> and after one year and ten months of exposure to the second language. The subjects are tested individually. The data elicitation is adapted and slightly changed from the example of Housen et al (1999).<sup>7</sup> It consists of a picture story retell task. The complete elicitation procedure includes two steps: 1) The subject is interviewed in English by a native speaker of German. He or she is asked to tell the picture story in English, but is allowed to ask for assistance in German if in need of certain words or expressions. In this retelling, the pictures are visible to both the child and the interviewer. The main objective of this first part of the elicitation procedure is to acquaint the child with the story and any unknown vocabulary. 2) The subject is interviewed exclusively in English by a second interviewer who does not speak German (or pretends not to do so). All conversation and story-telling thus have to be done in English, without any assistance in the L1. During this retelling, only the child can see the pictures. All interviews are recorded with video and audio equipment.

As will become obvious, there is a clash in the data between the different verb forms used by the children and their functional appropriateness. Thus, in the first section of this article, we will concentrate on the different verb forms used after 0;10 and 1;10 years of exposure, i.e., the morphological inflections used by the children will be identified and compared. Morphological inflections encode diverse grammatical functions, such as tense, aspect, number etc. In the second section, we will focus on the influence of lexical aspect as a selected example for function (see Rohde, this volume; Weist, this volume), since the progressive form is the first to appear in the data and the form predominantly used by the children in the first year. The guiding research questions are:

1. How does the children's use of verb forms develop from grade 1 to grade 2?
  - a) What kind of verbal inflections occur in the data?
  - b) What kinds of different error categories can be identified?

---

5 Twelve subjects were chosen randomly out of 30 samples to match the number of subjects for whom our analysis was carried out. The subjects were between six and seven years old. The elicitation procedure was equivalent to the second (all English) interview carried out with the German children (see below).

6 For a detailed analysis of this data see Lauer & Hansen (2001) and Beier (2001).

7 The study of Housen et al. (1999) is the result of a research cooperation between researchers from different European countries on the occasion of the *Euroconferences I-III: The Teaching of Foreign Languages in European Elementary schools* (1997, 1998, 1999). The final report is an unpublished manuscript, since the conference proceedings have not been completed. It contains a detailed analysis of elementary school L2 learners of English with different L1s and from different sociolinguistic backgrounds.

- c) How much variation can be found and what does it tell us about different levels of achievement reached by the children?
2. What is the function of the children's first verbal inflections?

### 3. Results

#### 3.1 The data at the beginning of schooling

At the beginning of grade 1, L2 production among the children varies according to their preschool experience. It was observed that in the first weeks of schooling, the *inexp* children hardly ever produced English output, whereas the *exp* bilinguals contributed to classroom conversation in English more readily. In a simplified picture story test, conducted after approximately 60 days of schooling in the second cohort,<sup>8</sup> the data elicited from *inexp* bilinguals consists mainly of one-word utterances. The *inexp* children hardly use any verbs, whereas with the *exp*, coherent sentences are found. Two excerpts of the narrations from this test were chosen to show these differences displayed after about two months of elementary schooling, and to illustrate the level at which production occurs in the early stages of the IM program; they may serve as a means of comparison for the later tests in the first cohort:

**Transcript 1:** Excerpt of narration after approx. 60 days of exposure (grade 1; 2<sup>nd</sup> cohort).

---

**Subject 16 (*inexp*)**

---

- IE Can you tell me what you see on the pictures?
- 16 It's dog, it's dog **sleeping**, it's sunny, it's dog, it's sunny, it's schoolbag, it's dog, it's schoolbag
- IE What are they doing?
- 16 It's dog, it's classroom, it's schoolbag
- 

IE - English-speaking interviewer

---

Student 16 is able to identify certain objects that he can see on the pictures, but he cannot produce coherent sentences. The expression *it's* is known to the children from daily question routines such as "*What's the weather like? – It's sunny*" and seems to be used by child 16 as a general strategy for identifying objects.

Transcript 2 reveals that student 9 is much further advanced. He is able to produce simple coherent sentences and makes use of both uninflected verb forms and the -ing form. Nevertheless, his narration is still very limited.

---

8 The data presented in these Transcripts 1 and 2 are taken from the second cohort, because this particular test was not administered with the first cohort.

**Transcript 2:** Excerpt of narration after approx. 60 days of exposure (grade 1, 2<sup>nd</sup> cohort).

**Subject 9 (exp)**

- 
- 9 Here's a man. And a dog. Here # here **go** the man to the school and **go** #  
 IE Forest?  
 9 and to the/ and **go** in the forest. Here's the school. And the dog **come** to the school. The dog **go**  
 in a/ **go** back. The dog to to/ to the school. Here **is** it. The dog **looking** in the schoolbag. The dog  
**is** under the chair.  
 IE What's he doing?  
 9 **Sleeping**.
- 

IE - English-speaking interviewer; # - pause; / - hesitation or self-correction

---

### 3.2 The data after one year of schooling

#### 3.2.1 Illustrative examples

The test conducted after 10 months of schooling reveals a large amount of inter-individual variation in the production. However, similar strategies can be found among children with a comparable L2 background. The following transcript excerpts show some typical features displayed by children with no L2 experience before entering elementary school.

**Transcript 3:** Excerpt of narration after 10 months of exposure (grade 1; 1<sup>st</sup> cohort).

**Subject 7 (inexp)**

- 
- 7 The boy and the dog/ I **can see** a frog. The frog **running** away, next morning it/  
 IE Can you speak a bit louder, so I can understand/  
 7 At next morning **is** the *Frosch* away. The boy and the dog **suchen** the frog.  
 IE What? They what...?  
 7 ...**suchen** *den* frog.  
 IE Okay.  
 7 The boy **rufen** the frog. The boy, eh the dog **falling** down. The boy **holding** the dog *im Arm*.  
 The boy **rufing** the frog, eh and the dog **rufing** "Farewell" and the boy **rufing** the frog. And the  
 boy, eh, and the dog **running** away. [...]
- 

IE - English-speaking interviewer; / - hesitation or self-correction; italics – L1 element

---

The student displays some morphologically target-like verb forms such as *falling*, *running*, *see*. She frequently makes use of her L1 (*suchen* [search] *rufen* [call]) and sometimes applies the English inflection -ing to German verbs (*rufing*). The -ing form is the predominant form, however, it does not occur in combination with the respective auxiliary.

Transcript 4 shows the narration from another *inexp* child:

**Transcript 4:** Excerpt of narration after 10 months of exposure (grade 1; 1<sup>st</sup> cohort).

**Subject 8 (inexp)**

8 There is a dog and a boy and the d/dog **looking** in a glass, and in the glass **sitting** a frog and the moon **shining**. And then, the boy **are sleeping** and the dog **sleeping**. And then, the boy **looking** in the glass and the frog is/ **is** not there. Then, the boy **looking** in the t-shirt and the dog **looking** in the glass and the boy **looking** out of window. And the dog staying/ **staying** next to the boy. And then, the dog **falling down** out the window and the boy **has** the dog in his hand. And then, the boy **are staying out** the house and # and **looking** in the water, And then, the boy **looking** in a hole and the bo/ and the boy **say** "Au!". Then, the boy **looking** in a hole and the, ehm, bees **fly away**. And then, the dog **are running** away. Then, the boy **coming** to a stone and then, the boy **staying on** the stone. Then, the boy **are sitting** on a deer and the dog **are running** away. Then, the dog and the/ and the boy **are falling** down. Then, the boy and the dog **are sitting** in the water. And then, the boy **are say** "psst" and the dog **are looking** # to the boy. And then, the boy **see** a frog and next to the frog **sit** a frog. And then, the frog children **come** # **out** the grass. And then, the boy **say** "goodbye" to the frogs.

# - pause; / - hesitation or self-correction

Subject 8 also predominantly uses the -ing form. The verbs mostly occur without the auxiliary. However, subject 8 displays a few instances of V-ing in combination with the auxiliary *are*. This verb form is used in both singular and plural contexts, indicating that subject 8 has not yet acquired the distinction between *is/are* in the respective contexts. In contrast to subject 7, subject 8 does not use any German words. The unmarked base form (V- $\emptyset$ ) is also recorded for child 8, but she does not apply the 3<sup>rd</sup> ps sg -s where required: *and the boy say "AU!"*. The third transcript shows the narration of an above-average student who attended the bilingual preschool before starting elementary school:

**Transcript 5:** Excerpt of narration after 10 months of exposure (grade 1; 1<sup>st</sup> cohort).

**Subject 1 (exp)**

1 The boy **have** a frog. And the boy **is looking** at the frog. And in the night the frog **is wants to go** away. And the boy and the dog is/ **are sleeping**. And now on/ in the morning the boy are/ **is** scared because the frog **is** away. # And the boy **is can't seeing** the frog anymore. The boy **is screaming**: "Frog, frog, where you **are**?" And now the fro/ the dog **is looking** in a hm bottle and then the dog **is falling** out of the window. And then the boy **is jumping**. And then the boy the frog eh/ the dog in his a/ arms. And then the # boy **is screaming**: Frog, frog, frog, where you **are**? #. And then the boy **is looking** for the f/ frog and then the/ the boy **is** scared and # and the fro/ and the dog **is** scared, too. There **come** bees. And the frog **is run** away/ eh the dog **is run** away. And now the boy **is seeing** a/ in a tree/ **going** to a tree and # now a/ the boy **is** scared, there **comes** a owl. And the boy **is falling** down. And they the/ then the boy **wants to climb** on a/ on a stone and they/ and the boy **is screaming**: "Help, help!" And then the boy **is don't know** where he/ where he **is**. And now the boy **is** on a # he **don't know** what he's **is**/ what h/ what the/ what the/ what's animal it **is**/ it **is** and then the boy **falling** in a sea. And then the boy a/ **hear**: "Quack, quack, quack, quack".

IE Aha. (*laughs*)

1 And then the boy **said**: "Pssh. **Be** quiet!" And then the frog **can see** two frogs and baby frogs. And then the fro/ the boy **is saying**: "Bye, bye frogs." And one little frog **can't go** on the tree.

IE - English-speaking interviewer; # - pause; / - hesitation or self-correction

In contrast to the other two, subject 1 uses the -ing form mostly in combination with an auxiliary. Self-corrections like *the boy and the dog is/ are sleeping* show that subject 1 is aware of the distinction between *is* and *are*. He sometimes overgeneralizes the use of the auxiliary as is apparent in utterances like *the boy is don't know where he is*. The target-like (tl) use of 3<sup>rd</sup> ps sg -s appears to be rendered in *there comes a owl*, however, subject 1 also displays the non-target-like (ntl) use of the unmarked base form without the -s: *and the the boy hear: "Quack ..."*. The use of infinitive constructions like *the boy wants to climb*, and instances of negation like *one little frog can't go on the tree* show that subject 1 has already acquired a wider range of verb forms than the other two subjects presented above.

The transcripts illustrate two things: Firstly, the progress from 1½ months to 10 months of exposure is considerable, and secondly, the variation between the single subjects as well as the intra-individual variation with respect to verb morphology is high. Child 1 uses 14 different verb types, 29 different tokens and several different verbal structures, whereas child 7 uses only 4 different types with a total of 8 tokens. Nevertheless, each child without exception manages to retell the full story in his or her own way – sometimes more, sometimes less rudimentarily.

Altogether, the 12 subjects use 296 verb tokens and 29 different verb types (Lauer & Hansen 2001) with the present participle (V-ing) being the predominantly used inflection (158 tokens). The base form (V- $\emptyset$ ) is the second most frequent form (56 ntl and 14 tl uses). Only 24 tokens are found for the preterite (V-ed) and the 3<sup>rd</sup> ps sg (V-s) respectively; infinitives (V-ing) occur only rarely (16 tokens). It was impossible to determine, after the first year, whether the high number of progressive forms was due to a developmental level reached by the subjects in their interlanguage, or whether the aspect of the progressive was used in a tl manner. If the children understood the task as a picture description, the present progressive might have been the appropriate form to describe an ongoing action on the picture. This elicitation problem will be discussed further in section 3.3.1.

### 3.2.2 Non-target-like forms after 0;10 years

The data show a wide range of variation in the use of ntl structures. In order to obtain a detailed classification of the different error categories, the errors are divided into two major groups, i.e., morphological and morphosyntactic errors, with the latter including those types of errors which depend on a syntactic structure, e.g., the progressive V-ing in combination with the auxiliary, the use of the past tense form where the past participle is required (only second grade, see section 3.3.2), the base form V- $\emptyset$  with/without 3<sup>rd</sup> ps sg -s, as well as morphosyntactic transfer from the L1.

Out of 296 tokens used by the group, there are 184 ntl tokens, which amounts to over 60%. Since V-ing is the predominantly used inflection, most of the errors occur with this form. The most common error in the samples is the use of the progressive without



auxiliary (*the frog running*; 48% of all errors tokens), followed by the base form where an -s is required (*the boy say*; 22%) and the use of the ntl auxiliary (*the boy are sleeping*; 13%). This means that most errors are morphosyntactic in nature. Even the most common morphological error, the insertion of tokens from the children's L1 (*rufing*), is almost negligible (6%).

The bias towards the progressive form in this narration could not be confirmed by a comparison group with English as L1. *Frog story* data from the American first grade showed that the comparison group's verbal inflections are more evenly distributed across all forms. As expected, the use of ntl structures is much smaller than that of the L2 learners. It is striking, however, that the source of the highest number of errors for the L1 speakers seems to match that of the L2 speakers, i.e., the uninflected base form V- $\emptyset$  in positions which require either an -s or the past inflection. It has to be added that the use of a single tense of narration was found to be almost as instable with the L1 English comparison group as with the L2 learners. This shows that at least the above types of errors have to be regarded as a natural developmental phenomenon and cannot be accounted for by transfer from the L1.

### 3.2.3 Achievement levels

Not only do we find a high level of intra-individual variation as revealed in Transcripts 3-5, but child 1 (*exp*) is obviously much further advanced than child 8 (*inexp*), and child 8 further than child 7 (*inexp*). In fact, a closer look at the intra-individual variation between learners reveals different levels of achievement. Table 1 identifies the different verbal features the children display at the end of grade 1.

**Table 1:** Verbal features after 0;10 years.

Feature	2 exp	7 inexp	9 inexp	14 exp	3 inexp	6 exp	8 inexp	4 inexp	5 inexp	1 exp	12 exp	16 exp
1. V-ing $\neg$ aux	+	+	+	+	+	+	+		+			
2. V- $\emptyset$ (infl)	+	+	+	+	+	+	+			+	+	+
3. aux+V- $\emptyset$					+			+	+	+		
4. V-ing+*aux						+	+	+	+			
5. V-ing+aux									+	+	+	+
6. V-s									+	+	+	+

V-ing $\neg$ aux – *he looking*; V- $\emptyset$  (infl) – *he look*; aux+V- $\emptyset$  – *he is/are look*; V-ing+\*aux – *he are looking*; V-ing+aux – *he is looking*; V-s – *he looks*

At the end of grade 1, the children's interlanguage can be divided into three levels according to their use of verb forms. Children 2 (*exp*), 3 (*inexp*), 7 (*inexp*), 9 (*inexp*) and 14 (*exp*) use the -ing form consistently without any auxiliary, and at the same time, the use of the unmarked base form (V- $\emptyset$ ) is present (features 1 and 2). The children seem to have not yet acquired the use of the auxiliary. Children 4 (*inexp*), 6 (*exp*) and 8 (*inexp*) already use the -ing form in connection with an auxiliary, but the auxiliary used is always *are*, never *is*, regardless of the respective subject (feature 4). The use of the unmarked base form is also recorded for these children. Children 3

(*inexp*) and 4 (*inexp*), among others, display overgeneralization in the sense that they sometimes use the auxiliary in combination with the unmarked base form, e.g., *the boy are look* (feature 3). None of these children produces the 3<sup>rd</sup> ps sg -s. The difference between the two groups is that the former does not use the auxiliary at all, whereas the latter uses the ntl auxiliary. Children 1 (*exp*), 5 (*inexp*), 12 (*exp*), and 16 (*exp*) seem to have reached a third level. They all use V-ing in connection with the correct auxiliary (feature 5), and they use V-s tl (feature 6) although the use of the unmarked base form in places requiring the 3<sup>rd</sup> ps sg -s still occurs with these children as well, indicating that they have not yet completed the acquisition process. The three levels of achievement regarding the form of verbs can be summarized as follows:<sup>9</sup>

**Table 2:** Achievement levels in the acquisition of verbal inflections after 0;10 years.

level	features	description	examples	children
1	V-ing $\neg$ aux V- $\emptyset$ (infl)	use of auxiliary in connection with V-ing not recorded	<i>and the boy looking for the frog and the dog look at the tree</i> (2)	2 <i>exp</i> , 3 <i>inexp</i> , 7 <i>inexp</i> , 9 <i>inexp</i> , 14 <i>exp</i>
2	V-ing + *aux V- $\emptyset$ (infl)	use of auxiliary <i>are</i> in connection with V-ing	<i>and then the boy are going out and say</i> (6)	4 <i>inexp</i> , 6 <i>exp</i> , 8 <i>inexp</i>
3	V-ing + aux V- $\emptyset$ (infl) V-s	use of correct aux. in connection with V-ing, use of V-s	<i>The boy is sleeping.[...] The boy looks, and the dog looks. The boy see two frogs.</i> (12)	1 <i>exp</i> , 5 <i>inexp</i> 12 <i>exp</i> , 16 <i>exp</i>

V-ing+aux – *he looking*; V- $\emptyset$  (infl) – *he look*; aux+V- $\emptyset$  – *he is/are look*; V-ing+\*aux – *he are looking*; V-ing+aux – *he is looking*; V-s – *he looks*

It is noticeable that the division of the group into *exp* and *inexp* learners does not in all cases relate to the level of achievement. However, level 3 is predominantly reached by children with L2 preschool experience.

### 3.3 The data after two years of schooling

#### 3.3.1 Illustrative examples

All children have improved to a large extent at the end of grade 2, as Transcripts 6-8 reveal. Subjects 7, 8 and 1 exemplify the progress within the group.

**Transcript 6:** Excerpt of narration after 1;10 months of exposure (grade 2; 1<sup>st</sup> cohort).

#### Subject 7 (*inexp*)

7 A boy **sits** on a chair and he **had** the dog and the shild/ and the child and the dog **look** at a frog in a glass. And it **was** night and the boy **was** in his pyjama. And then he **goes sleeping** and the dog, too, and the dog **sleep**, too, on the bed and then the frog **go** out the glass and then the next morning the boy and the dog **look** at the glass and there **are** zero frogs. And then he **look** at/ at the frog, the boy **look** at his shoes, the dog **put** his head in the glass and he **couldn't put** the glass from his face away. Then he **look** at out and the boy **cried**: Frog, **are** you here, **are** you

<sup>9</sup> Note that with respect to the progressive forms, this table only accounts for the acquisition of form. Since we assume that the children are not yet aware of the progressive aspect, no statements can be made about the acquisition of progressive function (see sections 3.4, 3.5).

there? And the dog **look** to # it # outside. And then the dog **falls** down and the glass # **goes** # [...] and then the boy **jump** to the dog and the boy **look** at the dog and/ but the dog *leckt* # at the boy's face. And then he **go** and **go** and **cried**: Frog, are you there? Then **come** to me, please! And/ and the dog **finds** bees and XXX at the bees # and *schnuppert* at the bees. And then the boy **found** a hole and he **cried** in the hole: Frog, **are** you there? Then **come** out! And the dog finds a bee # *Nest*

IE Okay

7 [...] But then the owl **comes** out and the boy **falls** down. [...]

IE - English-speaking interviewer; # - pause; / - hesitation or self-correction; XXX – incomprehensible italics – L1 element

In contrast to the narration from the previous year, subject 7 now predominantly uses simple forms. Although the 3<sup>rd</sup> ps sg -s is recorded (*a boy sits on a chair; and the dog finds bees*), it is left out in most required cases (*and the boy jump; and the boy look* etc.). Subject 7 displays regular as well as irregular past tense forms. The transcript also shows one instance of overgeneralization of 3<sup>rd</sup> ps sg -s: *But then the owl comes out*.

**Transcript 7:** Excerpt of narration after 1;10 months of exposure (grade 2; 1<sup>st</sup> cohort).

**Subject 8 (inexp)**

8 There **was** a boy and he **had** a frog in a glass and he **look** at the frog, he **laugh** the frog and the dog **look** at the frog. And then the boy **goes** into bed and **sleep** and the frog **goes** out, out of the glass and **go** in his home, and the dog **sleep** by the boy and the f/ next morning the frog **is** away and the boy **look** at the glass and the boy **is** a/ and the frog **is** away. The dog **look** at the f/ **look** at the glass but the frog **is** not there. Then the boy **look** in a boot if there **is** the frog and the dog **take** his head and **put** it in the glass but there **is** not the f/ frog in and then the boy **make** the window open and then he **shouted** eh "where **are** you, where **are** you?" And the frog f/ and the dog f/ **full** out the window. And then the boy **look** at the dog and the dog **full** on the earth and then the glass **is** crashed and the dog **is** on/ in the arms from the boy. And then the boy **goes** out of the house and **go** in the wood **to see** where **is** the frog and then the/ he/ h/ **go** with his dog in the wood. And he **look** at the in the woods, in a hole in the earth, and then when he **look** at it, the dog **look** at the bees and then the/ a small little animal **came** out of the hole where the boy **is looking** and he **bite** in his nose. And the bees **come** out and then the boy **is looking** in a hole in a tree and the boy and the dog **is looking** at the bees. [...]

/ - hesitation or self-correction

Subject 8 also predominantly uses simple forms in her retelling of the picture story at the end of grade 2, mainly the unmarked base form in places requiring 3<sup>rd</sup> ps sg -s. Variation with respect to the use of -s in the same sentence sometimes involve the same verb (*and then the boy goes out of the house and go in the wood*).

**Transcript 8:** Excerpt of narration after 1;10 months of exposure (grade 2; 1<sup>st</sup> cohort).

**Subject 1 (exp)**

1 Once upon a time there **was** a little boy, a l/ dog and a frog. The little boy **has found** the frog ehm beside a lake and he **wants to/ wants to** ehm **have** the frog forever. And he **put** the frog in a glass. And one night when the little, little boy and he eh the dog **were sleeping**, the frog **jumped** out of the glass and **jumped** out of the window. Next morning when the little, little boy **woke up**, he **wants to say** his dog hello, eh his frog hello but he do/ but he **doesn't found** his frog. Ehm the frog d/ **wasn't** no longer in the glass. He **don't know** where it **was**. The little boy

**looks/ looks** in his shoe, and the little dog **looked** in the glass and then the little boy **runs** to the window and **shouted**: Frog, where **are** you? And the dog ha/ **has** a glass on his head and **falls** from the windowsill. Then the little boy **runs, runs** out of the w/ out of the house and take to/ **take** his dog. Eh then they **want to found** the frog. The little boy **shouted** again: Frog, where **are** you? Then ehm the little boy **found** a hole in the earth, but/ and he **looked** in the, in the hole, but he **doesn't found** the frog but another animal he doesn't know/ he **doesn't know** the name of the animal. Then the little boy **climbs** on a tree to/ and he **wants to look** in a hole in the tree. But then ehm out of the hole in the tree **comes** an owl. The boy **was** scared of the owl/ owl and **climbed** on a tree and behind the tree there **was** a deer. And he had/ he **stands** on the deer's head. Then the deer **maked** a stop and the boy **felled** down in a lake. Then the little boy **hears** a noise. He **makes** a sign to his friend/ his dog: **Be** quiet, dog! Then they **have saw** the frog ehm their frog. And another frog and nine little frogs. And the little/ little boy **says** bye-bye to the frogs and one little frog **has** he in his hand. That **was** the end.

---

/ - hesitation or self-correction

---

Student 1 shows only one instance of using V- $\emptyset$  in a place requiring -s (*and the little boy runs out of the house and take his dog*); in the remainder of the narration he uses V-s tl. As is the case with subjects 7 and 8, subject 1 uses both present and past tense forms in his narration without any recognizable functional distinctions. He displays some typical examples of overgeneralization of the regular past tense form (*Then the deer maked a stop and the boy felled down in a lake*).

It is not surprising that, after 1;10 years, all of the speech samples are longer. All of them show a larger variety not only of verb types and morphological forms, but of vocabulary in general. Several things are striking: Firstly, the all-dominating ing-forms seem to have vanished from the transcripts – a fact which is representative of most of the other subjects. Secondly, a large amount of errors can still be identified although their quality has changed; and thirdly, the use of tense is more diverse than in the first year, and thus instable.

The amount of verb types and tokens used by the whole group to tell the same story nearly doubled (grade 1: 29 types, 296 tokens, grade 2: 44 types, 540 tokens). A detailed look at the verb types shows that the increase is mainly due to the appearance of synonyms (*search/look for, walk/go* etc.) indicating that the children's lexicon has indeed grown considerably. As to the distribution of verbal inflections, V-ing occurs only rarely (12 tokens out of 540), the simple forms V-ed (172 tokens), V- $\emptyset$  (200 tokens) and V-s (98 tokens) are dominant in the samples. The perfective V-en and the infinitives are still negligible. The drastic change in the use of verbal inflections, i.e., the decrease of the use of V-ing, might hint at the fact that the reason for the use of V-ing in grade 1 was probably not an elicitation problem (cf. section 3.2.1) but rather reflected a developmental achievement level of the learners.

It is important to note that there is a wide range of intra- and inter-individual variation, with the amount of types per person ranging from 5 to 17 at the end of grade 1, and from 11 to 24 at the end of grade 2. It is striking that the *exp* children on average use both more types and more tokens than the *inexp*, which suggests that the length of

contact with the English language is an important factor in the development of the lexicon.

### 3.3.2 Non-target-like forms after 1;10 years

Although the number of tokens used by the children after grade 2 has nearly doubled (296 → 540 tokens), the number of errors has increased only to a small extent (184 → 195 tokens). In both tests, the number of morphosyntactic errors is distinctly higher than the number of morphological errors. The children made more morphological errors after the end of grade 2 than they did in the previous year. This is due to the fact that the use of preterite and perfective forms (V-ed and V-en) played only a minor role in grade 1, and considerably increased in grade 2. The most common morphological error at the end of grade 2 is the use of the 3<sup>rd</sup> ps sg -s in combination with an irregular word form (*he comes*; 5%), followed by the use of the regular past tense where an irregular form is required (*he runned*; 3%). In both cases, overgeneralization seems to be responsible for the production of the ntl form.

A detailed look at the morphosyntactic errors shows that the distribution of error types has changed more drastically. After grade 1, the most common error was the use of V-ing without the auxiliary (*he running*), followed by the use of the uninflected base form (*he say*) and the use of the wrong auxiliary (*he are looking*). At the end of grade 2, however, these structures are negligible – the progressive, for instance, was used only twice without the auxiliary – whereas the use of V-Ø without inflection is now the most dominant ntl structure (143 tokens). This shift in the production of errors corresponds to the focus on simple and past forms in the grammar lessons, thus making room for a narration pattern in the simple form to which the group changed overwhelmingly. The distribution of present and past forms of the group reflects the behavior of most of the single subjects: Both tenses are used alongside each other; only very few single subjects manage to stick to one tense only. This corresponds to the L1 data of the bilingual group, of its monolingual German control groups (i.e., the parallel classes of the bilingual class), and of the English L1 comparison group (cf. section 3.2.2), which reveal that even in L1 German and L1 English the use of one single narration tense is not stable.

In order to obtain a better insight into the inter-individual variation, we have taken a closer look at the data of the second year with respect to the amount of time that the children have been exposed to the English language.

#### a) Target-like verbal inflections after 1;10 years:

The *exp* learners produce more tl tokens (205) than the *inexp* (144). It is striking that the *exp* students use more simple forms (V-s, V-ed and V-inf) than the *inexp*. Out of the *exp* learners, only one child makes use of the V-ing form, whereas the use of V-ing is recorded for all *inexp*.

b) Non-target-like verbal inflections after 1;10 years:

The number of ntl forms is higher for the *inexp* learners than for the *exp*. It is striking that the *inexp* students use a lot more ntl V- $\emptyset$  forms than the *exp*, indicating that most of the *inexp* children have not yet acquired the 3<sup>rd</sup> ps sg -s. The *exp* children display slightly more ntl simple forms.

It seems that with increasing time of contact to the English language, the children abandon the use of V-ing and start using simple forms more frequently. The high number of ntl V- $\emptyset$  tokens among the *inexp* students indicates that the correct use of inflections other than -ing is influenced by the contact time. Among the tested children, the children with more contact time produced less ntl V- $\emptyset$  tokens and more tl V-ed and V-s forms than the others.

### 3.3.3 Achievement levels

Whereas it has been fairly easy to distinguish different levels of achievement from the data after 0;10 years, levels are not as clearly to identify after 1;10 years. By the end of grade 2, the progressive form is almost absent in the children's narrative, therefore no statement can be made about the development of the progressive forms for the children who have reached levels 1 and 2 by the end of grade 1.

Regarding the acquisition of V-s, all children seem to have reached at least level 3 by the end of grade 2, i.e., they all produce V-s structures. All children, however, still produce ntl V- $\emptyset$  forms, i.e., the process of acquisition regarding the 3<sup>rd</sup> ps sg -s is not complete. As mentioned above, the number of ntl V- $\emptyset$  structures is greater for the *inexp* than for the *exp* subjects. All children except 1 (*exp*), 5 (*inexp*) and 16 (*exp*) overgeneralize the use of V-s in the sense that they attach -s to forms where it is not required, e.g., *they comes* or *they comes*. Children 1 (*exp*), 5 (*inexp*) and 16 (*exp*) seem to have recognized the places where -s is not required, and they only produce a small number of ntl V- $\emptyset$  structures. These children are the most advanced regarding their acquisition of V-s.

All children make use of V-ed, but none of the children uses V-ed in a completely tl manner. Overgeneralizations occur frequently alongside tl forms. It is interesting that the number of overgeneralizations is higher for the *exp* than for the *inexp* subjects. Although the *inexp* produce more ntl tokens than the *exp*, the errors almost exclusively concern the use of the uninflected base form in positions where an inflection is required. The *exp* children display a larger variation of error types, indicating that they do not follow a single hypothesis about the formation of verb forms but experiment with different forms. Overgeneralizations generally occur after the first tl forms are produced and seem to mark an important step on the way to the tl use of the respective inflections in complementary distribution.

### 3.4 Aspect-marking

So far, we have referred to the acquisition of verb forms without paying much attention to the question of whether the respective verbal inflections fulfill the grammatical function assigned to them in L1 speech. It has been claimed that in early stages of language acquisition the acquisition of morphological forms precedes its functionally correct use (Perdue 1993). In the following section, we will focus on the second research question, i.e., the acquisition of function. The acquisition of progressive aspect will serve as an example.

#### 3.4.1 The aspect hypothesis

Research about the acquisition of verb inflections suggests that, in the early stages of L2 acquisition, learners tend to encode the lexical aspect inherent to the verb, with tense distinctions or grammatical aspect being neglected. This phenomenon is referred to as the *aspect hypothesis* (AH, Andersen & Shirai 1994; Robison 1995; Rohde 1996, 1997, this volume; Weist, this volume; see Rohde, this volume, for a detailed introduction to the topic). As far as lexical aspect/aktionsart is concerned, Vendler (1967) differentiates four aspectual verb categories: *states* (*want*; *have*), *activities* (*swim*; *sleep*), *accomplishments* (*climb a rock*; *go home*) and *achievements* (*fall down*; *find something*). These different types of lexical aspect are distinguished with regard to the duration, telecity and dynamicity inherently expressed by the listed verbs/predicates. As research on the AH suggests, the verb categories predominantly occur with the following verb inflections: The V-ing form, which grammatically marks progressive, is mainly affiliated to verbs with an inherent lexical meaning of duration, i.e., to verbs categorized as *activities*, whereas verbs expressing an end result (*achievements* and *accomplishments*) mainly occur with past and/or perfective inflections. *State* verbs, on the other hand, mostly occur with V-s. It is assumed that the skewed distribution of verb inflections is, to some extent at least, also given in the input and grants the learnability of verb inflections in both L1 and L2 acquisition (Rohde 1997).

This analysis follows the outline of Rohde (1996).<sup>10</sup> Since the different categories concern verb types rather than tokens, for this part of the analysis only types were taken into account.<sup>11</sup> The following figures may serve to illustrate the distribution of verb categories and their respective inflections in our data.

---

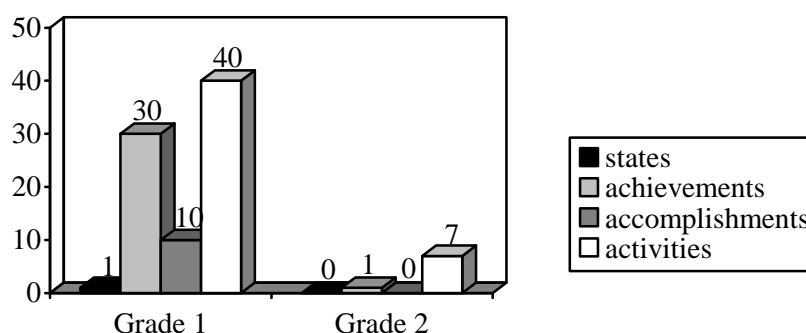
<sup>10</sup> V-irreg forms have not been analyzed separately but have been included in V-ed.

<sup>11</sup> It is important to note that verbs can change their category depending on the context. The verb *to eat* is, on its own, an *activity*, while in the context of *to eat a sandwich*, it represents an *accomplishment*. In this analysis, the single verbs are classified according to the context in which they were used.

### 3.4.2 V -ing

As already mentioned above, the most striking form to change from first to second grade is the V-ing form, whose high number of occurrences is displaced, in the second year, by more complex V-ed and V-s forms. The -ing form is, according to the *AH*, expected to (predominantly) appear with *activities* because of their inherent lexical aspect of duration. Figure 1 represents the use of the -ing suffix by the group with respect to the different verb categories after grade one and after grade two.

**Figure 1:** The -ing suffix and its occurrence with the four different verb categories.



There is a drastic decrease in the number of -ing suffixes in the second year. This goes along with the results presented in 3.3.1. As expected, *state verbs* almost constantly occur without -ing, and the *activities* are, in both years, the category which carries the most -ing suffixes (40 types in 2000, 7 in 2001). These findings are in line with the *AH*. The fact, however, that most of the *achievements* (30 types) in the first year and a high number of *accomplishments* (10 types) are also used with the -ing form, which amounts to almost exactly 50%, does not go along with the expectations (*achievements* and *accomplishments* are predicted to predominantly occur with past inflections).<sup>12</sup> In the second year, the combination of *achievements* + -ing suffix has almost completely vanished (there is only one instance); achievement verbs then occur predominantly with V- $\emptyset$  (55), V-ed (46) and V-s (38). Thus, lexical aspect-marking changes drastically within the two categories of *activities* and *achievements*, with the somewhat surprising fact that in the second year of acquisition, the predictions of the *AH* are met to a higher degree than in the first.

Whereas the number of verb types used with the -ing form in the first year is almost identical for both *exp* and *inexp* children (40/41 types), there is only one instance of a V-ing form used by an *exp* child in the second year, compared to seven instances by *inexp* children.

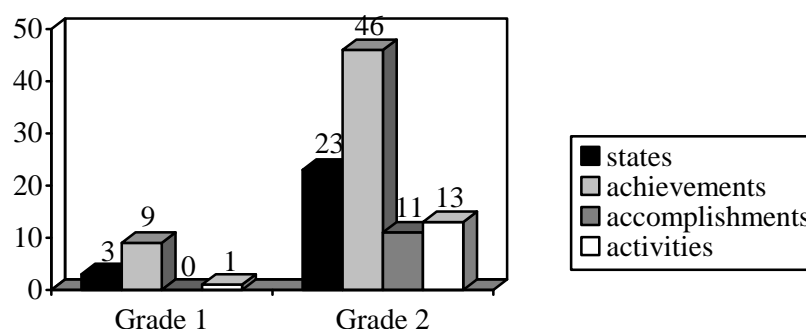
<sup>12</sup> We will suggest a tentative explanation for this phenomenon in chapter 3.5.



### 3.4.3 V -ed

The AH predicts that the -ed suffix (Figure 2) prototypically occurs with *achievements*, expressing a punctual action and telicity.

**Figure 2:** The -ed suffix and its occurrence with the four different verb categories.

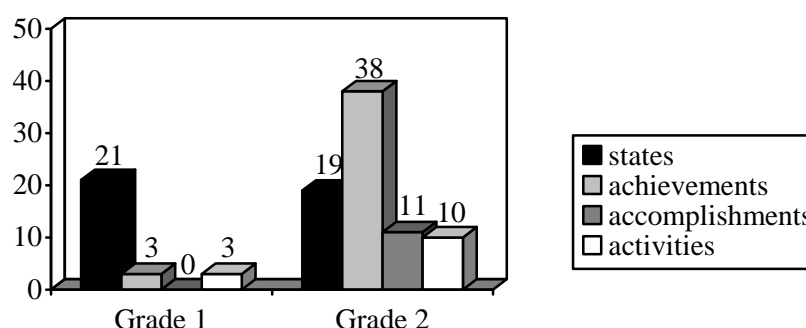


In the first year, the use of -ed forms is very rare (only 13 types). It is striking, though, that the few instances of V-ed appear almost exclusively with *achievements* and very few *states*. In the second year, this inflection has widely displaced the -ing form and risen up to 93 types and, again, is predominantly used with *achievements*. However, almost 50% of all V-ed instances are more or less evenly spread over the other verb classes (23 *states*, 13 *activities*, and 11 *accomplishments*). It is important to note that this distribution is not only characteristic of the group but also of a high percentage of intra-individual variation (section 3.4.5).

### 3.4.4 V -s

The "link between *states* and the V-s", as stated in Rohde (1996, p. 1125), could not be fully confirmed. Our findings reveal a somewhat different picture.

**Figure 3:** The -s suffix and its occurrence with the four different verb categories.



Whereas the data in the first year seem to confirm the hypothesis (with 21 out of 27 types, the -s inflection is overwhelmingly used with *states*), the data produced in the second year resembles the distribution of V-ed forms (Figure 2): V-s forms occur with

all four verb categories, and the group with the highest number of V-s verb types is not *state verbs* (19) but *achievements* (38). Even though the total number of types is not exactly the same, the relations between the different verb categories are strikingly similar.

### 3.4.5 Intra-individual variation: Illustrative examples

Tables 3 and 4 list a few selected examples from the database to show the variation which occurs within almost every sample. These examples were selected to illustrate the fact that in most of the individual narrations the use of inflections does not follow a distinct pattern (note that not all verb types of a single sample are listed).

**Table 3:** Intra-individual variation after 0;10 months of input (selected examples).

<b>Subject 3 (<i>inexp</i>):</b>	
<i>activities:</i>	<i>sitting; is sitting; eats</i>
<i>achievements:</i>	<i>is falling; is fall; coming; say</i>
<b>Subject 8 (<i>inexp</i>)</b>	
<i>activities:</i>	<i>are looking; looking; are sitting; sitting; sit</i>
<i>accomplishments:</i>	<i>are running away; fly away</i>
<i>achievements:</i>	<i>are say; say; coming; come; are falling; falling</i>
<b>Subject 16 (<i>exp</i>)</b>	
<i>states:</i>	<i>is; has; hears</i>
<i>activities:</i>	<i>are flying; is looking; looks out; looked</i>
<i>accomplishments:</i>	<i>is climbing; is running away; dress up</i>
<i>achievements:</i>	<i>is falling; falling; is going; shouting; shouted; is coming; come out; said</i>

As the examples in Table 3 show, the variation between -ing, -ed, and -s is typical of each verb category (except the *states*, where -ing occurs only rarely), and is even very common within one and the same verb type used by a child (16 *exp*: *shouted, shouting* etc.). The distribution of inflections used by the selected subjects is representative of most of the other children. With reference to the *AH*, however, no clear pattern is recognizable, in other words, there is a high rate of intra-individual variation within verb categories and within single types. One prototypical instance is shown by subject 9 (*inexp*), who is regarded as one of the least advanced *inexp* subjects. He inflects the German "hat" (*has*) with the typical *state*-inflection -s (*hats*). This would denote a prototypical use according to the *AH*.

**Table 4:** Intra-individual variation after 1;10 months of input (selected examples).

<b>Subject 1 (<i>exp</i>)</b>	
<i>states:</i>	<i>be; are; was; has; had; wants to have; wants to look; wants to say; want to found; doesn't found; doesn't know; don't know; have saw; hears</i>
<i>activities:</i>	<i>were sleeping (background activity); stands; looks in; looked in</i>
<i>accomplishments:</i>	<i>runs to; climbs on; climbed on</i>
<i>achievements:</i>	<i>has found; found; maked; makes; falls; felled; shouted; says; put; jumped; woke up; take; comes out</i>

**Subject 4 (*inexp*)**


---

<b>states:</b>	<i>is; are; have; hear; see</i>
<b>activities:</b>	<i>are looking; looked; look; followed; follow; lies; riding</i>
<b>accomplishments:</b>	<i>shaked on; goes at home</i>
<b>achievements:</b>	<i>fells on ; felled out; fall into; goes in pieces; wakes up; comes out; gives a sign; give; open; shouted; said; cried</i>

---

Table 4 illustrates a pattern widely used by the subjects in grade 2: The progressives have almost completely disappeared; the forms V- $\emptyset$ , V-ed and V-s all appear in seemingly free variation (4 *inexp*: *are looking, looked, look; fells, felled, fall* etc.). The single -ing form used by 1 (*exp*) could be explained as a backgrounding device: "*One night, when the little, little boy and the eh the dog were sleeping, the frog jumped out of the glass...*". Despite his advanced language knowledge, 1 (*exp*) produced the only prototypical example of the AH within the *states*; 1 (*exp*): *wants to found, doesn't found*. Here, the past tense (in this case the irregular past form, not the regular inflection) is probably learned as a chunk and sticks to the verb invariably, regardless of the morphological environment. The variation between V- $\emptyset$ , V-ed and V-s is typical of all narrations within the dataset.

### 3.4.6 Summary of aspect-marking

The data clearly show that the development from the first to the second year is marked by a drastic change in the marking of lexical aspect as predicted by the AH. Whereas in the first year of acquisition, rare instances of V-ed with *activities* (9/13) and V-s with *states* (21/27) go along with the predictions, these types are by far outnumbered by the use of the -ing inflection, which dominates every speech sample – and every verb category. In other words, only few V-ed occurrences which support the AH contrast with a large amount of instances of achievement verbs where V-ed would have been expected to be used, according to the hypothesis, but where V-ing was used instead. This is not true for the *states*, which appear with fewer inflections other than -s, although here, of course, a large amount of V- $\emptyset$  can be found. In the second year, the V-ing forms have almost completely vanished. The small number of types with which it still occurs are *activities*. The other inflections do not reveal a clear pattern. V-ed and V-s are both predominantly used with achievements, the other 50% of occurrences being more or less evenly distributed across the other categories. It also has to be pointed out that the intra-individual variation with reference to the four categories and to the use of a single verb type within the same speech sample is considerable.

## 4. General Discussion

Any analysis of verbal inflection carried out with help of data based on tests that consist merely of retelling a picture story is limited, as far as the acquisition of functional use of verbal inflections is concerned. The picture story does not provide an obligatory context for the use of either present or past tense, simple or progressive

forms. Depending on the interpretation of the events, the use of any of these forms can be justified. However, the picture story allows for the production of a large body of extemporaneous speech samples which are comparable to each other, since the context is the same for all children. Keeping the restrictions of the test in mind, our preliminary analysis of the verbal inflections used by the children with regard to the research questions leads to the following conclusions. For convenience, the research questions formulated in section 2 are repeated in the following:

1. How does the children's use of verb forms develop from grade 1 to grade 2?

a) What kind of verbal inflections occur in the data?

After one year of schooling, the predominantly used verb form is V-ing. Simple present occurs, but less frequently, and past forms occur only sporadically. These findings, however, are not surprising as they go along with other second language acquisition studies (see e.g., Dulay & Burt 1974, Wode 1981, Pienemann & Johnston 1987, Rohde 1997, Pienemann 1998). After the second year of schooling, the progressive form has almost disappeared from the samples. Instead, the children use simple forms, either uninflected or inflected with -s or past tense inflections. As expected, the children have a larger variety of morphological forms and errors after the second year of schooling, however, the decrease in progressive forms is astonishing because it does not correspond with the data found for the L1 comparison group.

b) What kinds of different error categories can be identified?

In the test conducted in the first year, the predominant error is related to the use of V-ing in combination with the respective auxiliary. In most cases, either no auxiliary is used (e.g., *he going*) or the auxiliary used does not agree with the subject of the sentence (e.g., *he are going* rather than *he is going*). Many errors of the latter type seem to be related to the fact that some children exclusively use either *is* or *are*, regardless of the corresponding singular or plural environment. In the test conducted in the second year, the dominant error type is the omission of 3<sup>rd</sup> ps sg -s (or the past inflection respectively). In both years, the number of morphosyntactic errors is higher than the number of morphological errors. This and the fact that errors resulting from transfer from the L1 have decreased by the end of grade 2 indicate that the children have fewer problems with the morphological than with the morphosyntactic level, e.g., with applying necessary markers of agreement like -s.

Some of the errors produced by the German children, i.e., base forms without an obligatory -s-inflection, and overgeneralizations of regular past tense by attaching -ed to irregular past tense forms, e.g., *he camed*, as well as tense shifts, were also found with a comparison group of American native speakers, indicating that such errors are part of a natural developmental phenomenon inherent to language acquisition.

c) How much variation can be found and what does it tell us about the different levels of achievement reached by the children?

The transcripts reveal a large amount of intra- and inter-individual variation. However, the students can be grouped with respect to their production of typical forms and errors, which indicate different levels of achievement. At the end of grade 1, the twelve students seem to have reached three different levels, with the most advanced students making use of -ing forms in combination with the *tl* auxiliary and employing the 3<sup>rd</sup> ps sg -s in some cases. After two years of immersion teaching in elementary school, all children have acquired the forms of progressive, past tense and 3<sup>rd</sup> ps sg -s. None of them have completed the acquisition process since they all show instances of the unmarked base form in environments requiring an inflection. However, the group displays large inter-individual variation. The three most advanced children (1, 5, 16) seem to have nearly completed the acquisition process regarding 3<sup>rd</sup> ps sg -s, since they only produce a very small amount of *ntl* V- $\emptyset$  forms and do not overgeneralize the use of -s.

Whereas the difference between the *inexp* and the *exp* learners is not as striking after the first year, it increases in the course of the second. Generally, the *exp* subjects seem to have reached a higher level of achievement in their development. They produce less *tl* V- $\emptyset$  forms than the *inexp*, and more *tl* V-s forms. A detailed look at the errors reveals that the *exp* students display a much larger variety of error types, indicating that they are aware of different inflections but do not yet use them in complementary distribution. This suggests that the length of exposure to the L2 has an impact on the acquisitional development between 3;0 and 6;0 in this respective context.

Interestingly, the different achievement levels which are reached by the children tested in this study seem to be in line with the order of development predicted by Pienemann (1998) for naturalistic L2 acquisition (for a complete overview on morphological and syntactic procedures see Pienemann 1998, p. 171, for an overview on developmental stages 1998, p. 246).<sup>13</sup> However, to actually confirm his hypothesis, a larger database and tests carried out at shorter time intervals are needed.

## 2. What is the function of the children's first verbal inflections?

With respect to the second guiding question, one has to ask whether the large amount of -ing forms occurring in the data of grade 1 serves the function of expressing the progressive. For several reasons we assume that this is not the case. Firstly, the early emergence of the -ing form is a well-known phenomenon from L1 and L2 acquisition, first revealed by the so-called morpheme order studies (see Brown 1973 and Dulay & Burt 1974 for details). Secondly, our subjects seem to use the -ing form as a particular

---

13 In his 1998 monograph, Pienemann explains the order of acquisition in these stages via his *processability theory* (PT). According to PT, the specific order of development can be accounted for on the basis of mechanisms in language processing, and learnability is constrained by psychological processes that operate within the mind. PT explains, for example, why the acquisition of past tense forms seems to be easier for the children than the acquisition of the 3<sup>rd</sup> ps sg -s: Past tense forms do not require inter-phrasal information to be exchanged and are therefore easier to process.

marker for "verb" in general (cf. sections 3.2, 3.4.2). One reason for this assumption is the fact that most of the subjects do not vary their verbal inflections with respect to the different linguistic surroundings (cf. sections 3.4.2, 3.4.6 on the coding of lexical aspect), and those more advanced subjects who do (1 *exp*, 16 *exp*), do not use the progressive in as widespread a manner as the others. Child 16 (*exp*) even manages to tell the whole story without a progressive form. Moreover, all the other subjects who used the progressive in the first year almost exclusively preferred to choose the simple form in the second, thus suggesting that they simply 'didn't know better' in the previous year. Thirdly, it is important to note that German does not have any grammatically aspectual category. Thus, the grammatical aspect of the progressive expressed in an inflection is nothing the children could easily understand let alone transfer from their L1. Finally, it is striking that with the American comparison group, the correct use of V-ing as aspect-marker for progressive actions is clearly visible. The fact that the German children very rarely use the -ing form in their narration at the end of grade 2 may hint at the fact that they have generally not yet acquired the grammatically aspectual function of this form and therefore do not recognize its obligatory use.

One explanation for the early emergence of the progressive has been seen in the fact that a verb inflected with -ing is more saliently marked than others. Nevertheless, for L1 speakers of German another fact has to be taken into account, namely the similarity of the -ing (or colloquially often pronounced -in') to the German infinitive ending -en (*falling/fallin'* vs. *fallen*, *coming/comin'* vs. *kommen*, *looking/lookin'* vs. *gucken*; Rohde 1997). The most revealing example with regard to this is subject 7 (*inexp*), who uses both a German infinitive and the same verb inflected with -ing three sentences later; 7: "The boy rufen the frog. [...] The boy rufing the frog." Another important factor might be the high share of the -ing in the input because of its multiple function as progressive marker, gerund and participle.

With regard to the *AH*, we would assume that, after their first year of input,<sup>14</sup> the subjects show a strong bias towards inflectional marking of lexical aspect as predicted by the *AH*, and then, after the second year of input, show a tendency to reflect grammatical aspect more strongly. The former, however, is rarely the case. It seems, rather, that after one year of input (or of active production), the whole process of marking inflections is dominated by the V-ing inflections. This is true for *activities* as well as for *achievements* and *accomplishments*. Thus, the high amount of -ing forms, especially in cases where one would expect a different inflection, confirms the assumption that V-ing has been used as a marker for 'verb' in general, irrespective of lexical or grammatical aspect.

---

14 For the *inexp* learners, it was the first year of input; for some *exp* learners it was the third, however, for them it was also the first year in which they systematically started to produce sentences.

A different situation emerges in the second year. A closer look at the amount of intra-individual variation between two or more inflections reveals that the -ing suffix has lost its general verb-marking character. At first glance, the data seem to partly confirm the *AH*, i.e., in the case of a very small amount of -ing inflections appearing almost exclusively with *activities*, and half of the -ed suffixes appearing with *achievements*. However, this conceals the fact that there actually is no bias of -ed for *achievements* and -s for *states*.

In conclusion, in the IM context we examined – and taking into account all the different restrictions we have made – the data of the first year confirm to some extent the predictions of the *AH*, although other processes seem to be involved which are far more dominant than the marking of lexical aspect. This can not be concluded from the data of the second year. More data from our project, and data which are elicited at shorter intervals, is needed, however, to overcome the preliminary status of all the results presented in this analysis.

Finally, it can be stated that the success of the analyzed group of children exceeded many people's expectations by far. It is desirable that projects such as the *Kiel Immersion Project* initiated by Henning Wode do not remain unique in Germany, and that his vision of such programs accessible to all children across Germany become reality.

## Acknowledgments

The authors would like to thank Alex Housen and Gabriele Palotti for their information concerning the elicitation procedure, as well as for the exchange of data; all the teachers and children from the Claus-Rixen school, who participated in the study, for their cooperation; Kai Andresen, Kaja Beier, Jessica Bachem, Christine Biskup, Nadine Hansen, Svenja Klust, Saskia Motullo, and Anja Steinlen for their assistance with the data collection and transcription; and Petra Burmeister, Thorsten Piske and Andreas Rohde for comments on an earlier draft of this paper. We also would like to express our gratitude to Henning Wode for his permanent support and encouragement.

## References

- Andersen, R.W. & Shirai, Y. 1994. Discourse motivations for some cognitive acquisition principles. *Studies in Second Language Acquisition*, 16, 133-156.
- Beier, K. 2001. *Untersuchungen zum Stand der englischen Verflexion bei immersiv unterrichteten deutschen Kindern der ersten Klasse an der Claus-Rixen Schule Altenholz (Testjahrgang 2000, Test A)*. Unpublished manuscript: Kiel University.
- Berger, C. 1999. *Pilotuntersuchungen zum Lauterwerb des Englischen in bilingualen Kindergärten am Beispiel der 'roten Gruppe' in der AWO-Kindertagesstätte Altenholz*. Unpublished manuscript: Kiel University.

- Berman, R.A. & Slobin, D.I. 1994. *Relating events in narrative: A crosslinguistic developmental study*. Hillsdale: Lawrence Erlbaum.
- Brown, R. 1973. *A first language: The early stages*. London: Allen & Unwin.
- Döpke, S. 1992. *The one parent – one language approach*. Amsterdam, Philadelphia: John Benjamins.
- Dulay, H.C. & Burt, K. 1974. Natural sequences in child second language strategies. *Language Learning*, 24, 37-53.
- Flege, J.E., Munro, M.J. & MacKay, I.R.A. 1995. Factors affecting degree of perceived foreign accent in a second language. *Journal of the Acoustical Society of America*, 97, 3125-3134.
- Flege, J.E., Yeni-Komshian, G.H. & Liu, F. 1999. Age constraints on second language acquisition. *Journal of Memory and Language*, 41, 78-104.
- Hansen, N. 2000. *Frog Stories: Morpho-syntaktische Aspekte eines Pilottests bei 6-jährigen bilingual deutsch-englisch unterrichteten Kindern*. M.A. thesis, unpublished manuscript: Kiel University.
- Housen, A., Castro, I., Kern, A., Moussouri, E., Pallotti, G., Potolia, A., Sabatier, C. & Sougari, A. 1999. Report of the special interest group on second language acquisition. *Euroconference III: The teaching of foreign languages in European elementary schools*. San Sebastián, 26 Sept. – 2 Oct. 1999.
- Johnson, J. & Newport, E. 1989. Critical period affects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21, 60-99.
- Lauer, K. 1999a. *Deutsch-französischer Kindergarten 'Rappelkiste' in Rostock: Der frühe L2 Erwerb des französischen Vokalsystems*. Unpublished manuscript: Kiel University.
- Lauer, K. 1999b. *Preschool foreign language learning*. Paper presented at *Euroconference III: The teaching of foreign languages in European elementary schools*. 1999, San Sebastián, 26 Sept. – 2 Oct. 1999.
- Lauer, K. & Hansen, N. 2001. Second language English verb morphology with German students in a grade 1 immersion class: Some preliminary findings. In: Siv Björklund (ed.), *Language as a Tool – Immersion Research and Practices*. University of Vaasa: Proceedings of the University of Vaasa, Reports, 2001, 272-285.
- Kersten, K. in prep. *Äquivalenzklassifizierungen im Zweitspracherwerb in bilingualen Kindergärten*. M.A. thesis, unpublished manuscript: Kiel University.
- Maibaum, T. 2000. *Replikationsstudien zum Erwerb des Wortschatzes in der Fremdsprache in bilingualen Kindergärten*. M.A. thesis, unpublished manuscript: Kiel University.
- Mayer, M. 1967. *A boy, a dog, and a frog*. New York: Pied Piper.
- Mayer, M. 1969. *Frog, where are you?* New York: Pied Piper.
- Mayer, M. & Mayer, M. (no year given). *A boy, a dog, a frog, and a friend*. New York: Pied Piper.
- Perdue, C. (ed.) 1993. *Adult language acquisition: Cross-linguistic perspectives*. Cambridge: Cambridge University Press.
- Petit, J. & Rosenblatt, F. 1994. *Synthèse de trois années d'évaluation des classes bilingues, hors contrat et associatives à parités horaires. Rapport à l'intention du Conseil régionale du Haut-Rhin*. Colmar: Service langue et culture régionales.
- Petit, J. 1996. *Rapport d'évaluation sur les classes ABCM du Haut-Rhin. Année 1996. Rapport à l'intention du Conseil régional du Haut-Rhin*. Colmar: Service langue et culture régionales.
- Pienemann, M. & Johnston, M. 1987. Factors influencing the development of language proficiency. In: Nunan, D. (ed.), *Applying second language acquisition research*. Adelaide: National Curriculum Research Centre, Adult Migrant Education Program, 45-141.
- Pienemann, M. 1998. Language processing and second language development: Processability theory. In: de Bot, K & Huebner, T. (eds.), *Studies in Bilingualism*, 15. Amsterdam, Philadelphia: John Benjamins Publishing Company.
- Robison, R.E. 1995. The aspect hypothesis revisited: A cross-sectional study of tense and aspect marking in interlanguage. *Applied Linguistics*, 16, 344-370.



- Rohde, A. 1996. The aspect hypothesis and the emergence of tense distinctions in naturalistic L2 acquisition. *Linguistics*, 34, 115-1137.
- Rohde, A. 1997. *Verbflexion und Verbsemantik im natürlichen L2 Erwerb*. Tübingen: Gunter Narr Verlag.
- Rohde, A. 2001. *Lexikalische Prinzipien im natürlichen L2-Erwerb*. Unpublished postdoctoral thesis: Kiel University.
- Tiefenthal, C. 1999. *Die Entwicklung des Wortschatzes der Fremdsprache in einem deutsch-englisch bilingualen Kindergarten*. M.A. thesis, unpublished manuscript: Kiel University.
- Tonn, G. 1999. *Pilotuntersuchungen zum Lauterwerb des Englischen in bilingualen Kindergärten am Beispiel der 'grünen Gruppe' der AWO-Kindertagesstätte in Kiel-Altenholz*. Unpublished manuscript: Kiel University.
- Vendler, Z. 1967. *Linguistics in philosophy*. New York: Cornell University Press.
- Weber, S. & Tardif, C. 1991. Assessing L2 competency in early immersion classrooms. *Canadian Modern Language Review*, 47, 916-932.
- Wode, H. 1981. *Learning a second language – An integrated view of language acquisition*. Tübingen: Narr Verlag.
- Wode, 1988/1993. *Psycholinguistik: Eine Einführung in die Lehr- und Lernbarkeit von Sprachen; Theorien, Methoden, Ergebnisse*. Ismaning: Hueber.
- Wode 1995. *Lernen in der Fremdsprache. Grundzüge von Immersion und bilinguaem Unterricht*. Ismaning: Hueber.
- Wode, H. 1996. *Bilinguale Kindergärten und Vorschulklassen: Struktur, Funktionsweise, Leistungsfähigkeit, psycholinguistische Grundlagen*. Unpublished manuscript: Kiel University.
- Wode, H. 1998a. Bilingualer Unterricht – wie geht's weiter? In: Piepho, H.E. & Kubaneck-German, A. (eds.), *I beg to differ: Festschrift für Hans Hunfeld*. München: Iudicium-Verlag, 215-231.
- Wode, H. 1998b. Bilinguale Kindergärten: Wieso? Weshalb? Warum? *KiTa* 10: 203-207 [<http://ikarus.pclab-phil.uni-kiel.de/daten/anglist/linguist/public/docs/wieso.htm>].
- Wode, H. 2000. *Mehrsprachigkeit durch Kindergarten und Grundschulen: Chance oder Risiko?* Unpublished manuscript: Kiel University.
- Wode, H. 2001. Multilingual Education in Europe: What Can Preschools Contribute? In: Siv Björklund (ed.), *Language as a Tool – Immersion Research and Practices*. University of Vaasa: Proceedings of the University of Vaasa, Reports, 424-446.
- Wode, H., Berger, C. & Tonn, G. 1999. *L2 phonology in bilingual preschool: The age issue in reverse*. Paper presented at EUROSLA 1999, Lund, 10-12 June, 1999.
- Wode, H., Hansen, N., Imhoff, C. & Lauer, K. 2001. *Trilingual education in Germany: A European extension of Canadian immersion*. Unpublished manuscript: Kiel University.