Bilingual Preschools

Volume II

Best Practices

Edited by Kristin Kersten, Andreas Rohde,
Christina Schelletter, Anja K. Steinlen

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Introduction

The recent and intensified implementation of early foreign language education in European policies shows how multilingual competence has become increasingly important in a globalised world:

> Language competencies are part of the core of skills that every citizen needs for training, employment, cultural exchange and personal fulfilment … It is a **priority for Member States** to ensure that language learning **in kindergarten and primary school** is effective, for it is here that **key attitudes towards other languages and cultures** are formed, and the foundations for later language learning are laid, … **in particular by teaching at least two foreign languages from a very early age**.[1]

Early bilingual programmes are one of the most successful options to address the need for early foreign language education. However, compared to research in primary and secondary schools, there are very few systematic large-scale studies on very young learners at the preschool level.

The two volumes of this publication aim to fill this gap in the current research debate. They provide an insight into research studies which were carried out in eleven different bilingual preschools across Europe. The studies derive from a multilateral EU Comenius project carried out in Germany, Belgium, Sweden and England between 2008 and 2010. The ELIAS project (Early Language and Intercultural Acquisition Studies) comprises eighteen partners including academic and educational institutions, preschools, as well as the Magdeburg Zoological Garden in Germany. Under the lead management of Otto von Guericke University Magdeburg, every bilingual preschool in the project has been monitored by researchers over the last two years. The studies cover first and second language acquisition[2] of the children, the language input of the preschool teachers[3] who provide the input in the second language (L2) to the children, as well as intercultural education and bilingual environmental education ("green immersion") at the zoo preschool in Magdeburg.

More than 400 children and over 20 L2 preschool teachers participated in the ELIAS studies. To our knowledge, the project represents the largest longitudinal study in European preschools to date. The research team combined qualitative and quantitative approaches. Field observations and data elicitation were carried out by participant observers who took part in the daily preschool routines once a week over a span of two years between 2008 and 2010. Where possible, the team used existing data elicitation procedures. However, due to the special focus on very young learners not all required

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1 European Commission: *Promoting Language Learning and Linguistic Diversity: An Action Plan 2004 – 2006* (p. 8), emphases added.

2 The terms 'second language' and 'foreign language' are used interchangeably throughout the book.

3 Due to the vast differences in preschool terminology throughout Europe, educators and other pedagogical staff in the preschools is referred to as 'preschool teachers,' independent of the pedagogical approach used in the respective institution.

tools were available on the market. Thus, an observation checklist for the input of the L2 teachers, a score for the intensity of the L2 input, a comprehension test for grammatical phenomena, a field guide for the observation of intercultural encounters, and an observation tool for green immersion were developed by the research group. They represent an innovation to systematic data elicitation at preschool level.

Volume I presents the results of the different research studies in detail. It has a strong theoretical and empirical focus and is aimed at the research community in the fields of first and second language acquisition, intercultural communication, environmental education and foreign language teaching. The volume begins with a study on the L2 teachers' input and its relation to the results of the test results by Martina Weitz and her team. The data were elicited with a newly developed ELIAS observation tool, the IQOS (Input Quality Observation Scheme). In the following four chapters, the results of the language studies are presented, starting with Andreas Rohde's paper on L2 lexical comprehension based on the standardised and readily available BPVS II (British Picture Vocabulary Scale II), and Steinlen et al.'s paper on the comprehension of L2 grammatical phenomena based on the ELIAS L2 grammar comprehension test. Christina Schelletter & Rachel Ramsey's chapter includes comparison data of monolingual and bilingual speakers in England on both comprehension tests. Steinlen et al. then go on to describe the children's first language acquisition in the German project preschools, which is based on the standardised SETK test. Kersten et al. introduce a new angle to the preschool studies, describing the intercultural encounters observed in bilingual preschools between children of various cultural backgrounds, and between children and their non-native teachers who provide the L2 input in each programme. This paper develops categories of ICC observation, which present a new step in the research on intercultural behaviour of very young children. The following two chapters by Shannon Thomas and Inge Strunz & Shannon Thomas focus on research in the zoo preschool. Thomas identifies stages of development in the L2 encounters with nature and animals while Strunz & Thomas include the perspective of parents and teachers on the reactions of the children at the zoo preschool. Volume I concludes with a presentation of the profiles of each project preschool. Insa Wipperman & Christine Tiefenthal take various factors into account which constitute the unique structure of each programme and which help understand the multifaceted nature of preschools that the research studies were faced with. This final chapter may serve as a detailed reference point for the data presented in the preceding sections.

Volume II, on the other hand, contains a description of best practices in various different bilingual preschool programmes as well as background information on important preschool-related topics, which was derived from teacher training units developed in the ELIAS framework. It is of interest for practitioners, teachers and other educational staff, parents, politicians and researchers alike. The volume starts out with Henning Wode's introduction to bilingual preschools on the European level, which gives an example of a successful model of bilingual immersion education from preschool to high school in Kiel, Germany. The second chapter summarises the most important research

results from the first volume. It gives an insight into the studies without going into too much technical detail for the convenience of the reader. This chapter simultaneously constitutes a part of the project's final report (www.elias.bilikita.org). In the third and fourth chapter, a team of authors develop practical guidelines for the implementation of bilingual preschools and the role of language interaction between the L2 teachers and the children in the bilingual programme. The following part contains four chapters by Andreas Rohde, Ute Massler, Shannon Thomas and Christine Tiefenthal, which give introductory insight into the fields of second language acquisition, intercultural communication, green immersion and the development of learning materials for bilingual preschools.

The two volumes together give a comprehensive overview of research studies carried out as part of the ELIAS project as well as practical aspects of bilingual preschool education. They highlight the project's interdisciplinary approach to the both fresh and exciting research field of bilingual preschools in Europe. The editors hope that the studies presented in this two-volume work will foster theory construction in second language acquisition to pave the way for future studies, and that the chapters will be informative and inspirational to anyone involved in bilingual preschool education. The work has just begun.

This immense work would not have been possible without the tremendous help from over 60 members of the ELIAS team, and from many more colleagues and friends. We are very grateful for all the expertise and time they devoted to the project. A very special thanks must firstly go to the group of participant observers who contributed the data to the studies: Aafke Buyl, Maria Büllesfeld, Jutta Daszenies, Anna Flyman Mattsson, Lydia Gerlich, Lena Gotthardt, Sylvia Luft, Svenja Pahl, Rachel Ramsey, Annelie Schober, Marion Salentin, Ramona Thierer, Shannon Thomas, Martina Weitz, and Insa Wippermann. Their tasks were multifaceted, and their talents were required on many different levels. Not only did they have to make systematic observations, collect the data in the preschools and contribute to data analysis, they also functioned as an important connecting link between the preschools with their children and staff, and the research teams. The Zoological Garden in Magdeburg opened its gates for children and adults alike. The team shared their expertise on nature topics and, on top of that, left us with many unforgettable experiences of the animal world. Elke Kalbe and Dario Klemm provided us with a sound statistical analysis and an important focus in what at times seemed an overwhelming amount of data. Alexandra Hähnert, Jessica Levin and Reiner Lauer spent countless hours helping with the editorial process. We have to express our gratitude and appreciation for their patience and their keen eye for details. The European Commission provided us with a financial grant within the LLP Comenius Programme, which made the work possible in the first place.[4] We would also like to thank our partner institutions, and especially the English Department at Magdeburg

4 These volumes reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

University, directed by Holger Kersten, for making available substantial additional resources without which the work could not have been completed. The administration of the project turned out to be more challenging than expected, and we are grateful to all administration staff at our various institutions, notably Veronika Kauert and the team at Magdeburg University, and above all to Jane Gronner, the financial manager, whose relentless initiative in countless hours of work and her unparalleled communicative skills guaranteed a smooth and competent process at all times. Thanks also have to go to representatives at the political level for their support, first of all to Norbert Bischoff, Minister of Health and Social Affairs in Saxony-Anhalt, Germany, and patron of the project's final conference, Thomas Gericke from the Ministry of Health and Social Affairs, and Dr. Uwe Birkholz from the Ministry of Education and Cultural Affairs in Saxony-Anhalt. Most of all, however, we would like to thank our preschool partners for their contributions: the staff for their competent teaching and partnership, the parents for their confidence in the project and their time filling out our questionnaires, and last but not least all the children for their enthusiasm and their willingness to let us share their openness and their enthusiasm in learning. Apart from gaining important academic insights into their development, it has been a pleasure accompanying them in these steps over the last two years and sharing their excitement for the new language and all the persons they encountered with it.

Magdeburg, Cologne, Hatfield, and Kiel, October 2010,

Kristin Kersten
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Part A: Results and Best Practices

Foreign Language Education in Europe: Why Include Preschools?

Henning Wode

Abstract

The purpose of this paper is to provide some background for the ELIAS (Early Language and Intercultural Acquisition Studies) project in terms of how it reflects, and contributes towards meeting, the linguistic challenges arising from the political developments in Europe since World War II and as stated in the language policy of the EU. Its goal is to preserve the present-day linguistic and cultural diversity throughout its member states and beyond. There is a consensus at the present time that in order to achieve this goal multilingualism needs to be promoted on a large scale. Therefore, the EU's language policy states that each child growing up in the EU is to have the opportunity to learn at least three languages at a functionally appropriate level during his/her time in school – functionally appropriate meaning that the level of proficiency in the new languages should be such that the latter can serve professional purposes. The problem is that, with the exception of, perhaps, Luxemburg, none of the other national education systems throughout the EU is presently up to this task, although there is a consensus as to how to resolve these problems: We need to start much earlier; and our teaching methodology needs to become much more efficient. The key problem is how to achieve these goals. This paper highlights the contribution by preschools and immersion teaching (IM) in a network of IM programmes that cover the time span from preschool (age 3;0) till the end of secondary school (SEC) II (age 18;0).

In this scheme the first language (L1) is acquired at home; the second one (L2) comes in at age 3;0 via IM in preschool, and it is continued via IM till the end of primary school, i.e. at age 10;0. The third language (L3) is introduced at the beginning of SEC I. Additional languages can be added afterwards. Although such issues are a concern in many countries, including many beyond the EU, this paper is based on ongoing research from Schleswig-Holstein, northern Germany, for three reasons. First, these experimental programmes were expressly tailored to the demands arising from the current EU language policy with respect to starting early and aiming at the mastery of three languages; second, this project has already produced a wide range of empirical results that allow us to actually point out what can be achieved via IM in conjunction with an early start; and, third, the Schleswig-Holstein project is one that has given rise to the ELIAS project in the sense that the latter has, all in all, continued, broadened, and extended the original issues in various ways in line with the goals set by the EU. The key issue in this paper is why preschools have to be included. The answer sought is whether there is any empirical evidence to suggest that there are certain effects in terms of outcomes that can only be arrived at if preschools are included.

1. Introduction

The present debate on preschools is motivated by concerns about various shortcomings pertaining to the results that tend to be produced by the public education system(s). This includes, unfortunately, poor results in learning foreign languages. The problem has existed for many decades. However, people have become increasingly aware of it only when the EU's language policy began to capture the attention of the general public during the early 1990s (e.g. Wode 1991, 1992, 1995, 1998a, 1999b). Note that the problem is not solved by getting the public to agree that language learning in our schools needs to start in preschool; the real problem is how to best implement such an early start, given the many prejudices against early foreign language learning that many people still subscribe to (for a recent review see Wode 2009a) and given the fact that in Germany teachers have never been trained for such a job.

As for how to decide what may constitute the best way to implement IM in preschool and how to continue afterwards, a variety of approaches have been suggested and experimented with in the past. The view taken in this paper is that what is needed are reliable evaluations conducted on the basis of the scientific methodology current in the field.

Of course, there are many reasons why one may want to promote multilingualism. However, in the present debate on the desirability of learning additional languages two criteria stand out: One is outcomes with respect to languages and subject matter, including, in particular, the subjects taught via IM; the other criterion is the fact that these new teaching procedures should be accessible to all children, and not, say, to majority-language children only. These two criteria were crucial in developing the structure of the IM programmes in Schleswig-Holstein and the design used in their evaluation.

This paper has six major parts: The point of departure is the challenge arising from the current developments with respect to increasing globalisation and Europeanisation and highlighted, for example, in the EU's official language policy. In the next part the focus is on the network of IM programmes in the province of Schleswig-Holstein. They cover the age range of 3;0-18;0. Parts 3, 4, and 5 deal with the results achievable in SEC I-II (age 10;0-18;0), primary school (6;0-10;0), and preschool (3;0-6;0) in that order.

Since the terminology and the respective age ranges for the field of early foreign language teaching may differ considerably from country to country, the terms and definitions used in this paper are listed in Table 1. The scale is the one current in Germany. Unfortunately, there is not enough space to discuss this terminology in any detail.

age	German	English
3;0 - 6;0	Kindertagesstätte (KITA)	preschool
6;0 - 10;0	Grundschule	primary school
10;0 - 16;0	Sekundarstufe I (SEK I)	SEC I
16;0 - 18;0	Sekundarstufe II (SEK II)	SEC II

Tab. 1: Age-based terminological distinctions for early foreign language teaching current in Germany

2. The European scenario: The 3^{+}-language formula

Although politically the responsibility for education still rests with the individual member countries, the EU has, nonetheless, also taken the initiative in advancing various educational issues. In fact, promoting foreign language learning and multilingualism has been such an important concern in the EU that the Commission even devised a language policy of its own (e.g. Commission of the European Communities 2003). This language policy has quickly become the major yardstick for many countries, even beyond the EU's territory, in revising and re-structuring their education system(s). The key idea of the EU language policy is what has become known as the 3^{+}-language formula (e.g. Wode 2001, 2009a).

This formula stipulates that, during their time in school, all children in the EU are to have the chance to learn at least three languages at a functionally appropriate level and, possibly, more, hence the sign "+". As for which languages to choose, one should be one of the most widely spoken languages, like English, Spanish or Mandarin Chinese; the second one should be one of the many mid-sized ones, like German, Russian, Arabic, Hindu, French, etc; and the third one might well be one of the lesser used languages, such as Estonian, Danish, or Finnish. Moreover, the resulting scheme should be applicable to the full range of language situations current in present-day Europe, including the various majority and minority situations. In addition, it should go without saying that the opportunities to learn foreign languages need to be provided for via the public education systems in such a way that all children from all social ranks have access to them; and that the outcomes for each language taught should be such that the children stand a chance of reaching a proficiency level that will enable them to compete successfully in the international job market. At the present time, there appears to be a consensus on these goals; but the key problem still remains, namely, how to reach them.

In what follows, the present-day shortcomings and how to remedy them are discussed on the basis of the present situation in Schleswig-Holstein, northern Germany. It is argued that the bilingual education programmes (*bilingualer Unterricht*) for SEC I-II, i.e. starting at age 10;0, will do for one non-native language; but there is not enough time for an additional one. This problem has given rise to a general debate about the feasibility of starting earlier, such as in primary school or even in preschool. Such an early start based on IM in preschool and primary school is the main focus of this pa-

per. The model will be described in some detail and some pilot research concerning the outcomes will be summarised at two points in time, namely, during preschool and at the end of primary school, i.e. towards the end of grade 4.

3. The German scenario: Schleswig-Holstein

The first English IM project in the public schools in Schleswig-Holstein was started in 1991. It was a late partial IM programme for 10-16-year olds. In some schools it was extended till age 18;0. This programme was complemented by an English IM programme for three-year olds in a bilingual English-German preschool at Altenholz near Kiel in 1996 in preparation for English IM in primary school. It is the data from this preschool in conjunction with the Altenholz primary school that this paper is primarily based on. To be able to assess these facts requires some familiarity with the basics of the programme at SEC I which the preschool and the primary school are to feed into.

3.1 *Bilingualer Unterricht:* Late partial IM at SEC I-II

The SEC I programme follows the German model of bilingual education. In Schleswig-Holstein the foreign language, in general, is English. It is introduced at age 10;0 at the beginning of grade 5. During grades 5-6 English is taught in the traditional way of language-as-subject (LAS). During each of these two years English is given two booster periods, i.e. two extra periods in addition to the normal curriculum in order to make sure that the students' level of English proficiency is sufficient to deal with the complexities of the two subject areas of history and/or geography once they are taught via IM starting at the beginning of grade 7. These subject areas are also given boosters although only one period per subject (details Wode 1994a, 1995, 1998a, Wode et al. 1996).

Research shows that the SEC I programme is very successful, indeed (e.g. Wode 1994a, Burmeister 1994, Knust 1994, Kickler 1995, Cohrs 1998, Daniel 1998, 2001, Mukherjee 1998, 2000. For recent summaries see Wode 1998a, 1999, Wode et. al. 1996, Burmeister 1998, Burmeister & Daniel 2002). However, as pointed out in more detail in Wode (1998b), although such programmes may be extremely successful in promoting one additional language, they fail to meet the 3^{+}-formula. Since it is obvious that there is not enough time during SEC I or II to push the L3 to the required level of proficiency, the obvious move to take is to opt for an early start. In fact, several such options have been experimented with in Germany. Some start in grade 4, some in grade 3, and some in grade 1. But except for the early-start programme in Schleswig-Holstein, none use IM. (For recent surveys see Bludau 1998 or papers in Hermann-Brennecke 1999). The Altenholz early IM model has turned out to be by far the most successful one.

3.2 The early start: IM at preschool and primary school

In the early-start programme the L1 is acquired at home. The L2 is introduced via IM in preschool around 3;0. After preschool the L2 continues to be taught via IM until the end of primary school (age 10;0), preferably as early total IM, or near-total IM in case language arts is also offered for the L1. By the end of the primary grades, the students' proficiency tends to be high enough so that the amount of time normally allotted to this language in terms of LAS within the regular programme can then be reduced considerably and the time gained can be used to teach the next language. In fact, any reduction in the actual amount of exposure to the L2 can be made up by using the latter as the medium of instruction in other subjects. Moreover, it is thought important to continue to offer this language during SEC I-II to ensure that literacy continues to develop in age-appropriate ways.

By reducing the number of periods for the L2 in terms of LAS at the end of primary grade 4 enough time is won to start on the L3 upon entry into grade 5, i.e. around 10;0 in such a way that this language can be given the intensity of exposure needed to reach the functionally appropriate proficiency level. The approach to be used for the L3 is the late partial IM programme already in existence since 1991. Note that the basic cut of the German school system does not have to be altered, and further languages can be introduced later on during SEC II.

3.3 Two peculiarities of German schools

Although the Altenholz IM model was developed on the basis of Canadian French IM, the latter had to be modified, in particular, because of two characteristics generally lacking in French- and/or Anglo-Saxon-based school systems.

One point is that in Germany most schools are half-day schools. The children go to school only in the morning; there is no school in the afternoon. As for assessing IM programmes this means that specifying the intensity of exposure to the new language in terms of percentages, such as 100% IM or 50% IM, may be grossly misleading depending on whether the reference point is a German half-day school or an all-day school. Fortunately, preschools in Germany start at age 3;0 so that IM may start at that early age and not, say, at 5;0 as in Canada. Moreover, the results summarised below (sections 4-5) indicate that the early start at 3;0 does, in fact, amply compensate for the reduction in time due to the half-day situation.

The second peculiarity relates to newcomers who enter the programme at some later point and whose level of the L2 is either considerably lower than that of the other students or who may not have any knowledge of the L2 at all. Such newcomers are anything but rare. The problem arises because every province in Germany champions its own education system, thereby, in general, retaining numerous regional peculiarities even with respect to the curriculum. This makes it extremely difficult for parents to

find a school for their children to match their former one in case the family has to move, for example, for professional reasons. It is, therefore, very important for IM to be acceptable to the general public to check to what extent, if at all, children without any, or with only little prior knowledge of the L2 are able to benefit from IM by catching up.

In the analyses presented below three kinds of children are distinguished: The B(ilingual) children took part in the Englisch IM programme of the bilingual preschool for three years; the M(onolingual) children entered grade 1 of primary school without any knowledge of the L2, English, at all; and the V(isiting) children also attended the IM preschool but they were assigned to a non-English-based group. That is, their working language was German throughout. However, since the V-children were allowed to visit freely with the B-children, the former did know a good bit of English upon entering grade 1.

4. Preschools

To start with, it is important to warn against setting one's expectations too high. Although it is customarily believed that young children can learn additional languages fast and at native-like levels of competence, this does not mean that it may take only a year or two for their proficiency to become native-like. In particular, the kind of bilingual preschools that can reasonably be set up at the present time, tend not to produce such results. The reasons have to do with how preschools are organised and run. The English-German preschool at Altenholz, Kiel, mentioned in section 3, and a similar French-German one at Rostock will serve as illustrations.

4.1 Structure and functioning

Bilingual preschools are structured like monolingual ones and they function like them except for the use of the languages. Three issues are central: Who is to provide access to the L2? How to use it so that the children best benefit from it? And how much input/intake do the children get?

4.1.1 The person-language bond

The IM preschools at Kiel and Rostock follow the person-language bond, as do all the ELIAS preschools. That is, there are two teachers A and B. A represents the children's L1, B the L2. B will use only the new language with the children when with the group as well as outside of it as long as the children are around. In addition, however, B needs to have some competence for the children's L1 so that they can approach her to ask for favours, to voice complaints, etc. B, however, will only respond via the new language.

4.1.2 The language situation: Input, intake, language background of the children

Of course, the amount of exposure to the target language is a crucial factor in any kind of language acquisition. In monolingual areas the input for the new language can only come from the preschool teachers. The obvious principle to follow is the person-language bond, as pointed out above. However the amount of exposure may be difficult or impossible to specify, because of local requirements and because of the particular philosophy behind preschool education. For example, in Germany it is a basic principle of preschool education never to enforce anything onto the children. Consequently, they are never made to participate in any of the activities carried out in the new language. They are free to turn to something else that does not involve its use. Participation should not be mandatory.

Although it is impossible to quantify the input in any precise way, it can safely be assumed that the amount of input the children get at Altenholz or Rostock and the amount of intake they derive from it is anything but overwhelming. Unless there are visitors, there is only one person to provide input for the new language. The fact that the children are free to get exposed to it or to do something in their L1 is likely to reduce the amount of intake even more than tends to be the case in non-preschool situations. In addition the children all share the same L1 so that, from their point of view, there is no vital reason at all to take the trouble of resorting to an unknown language (for details see Wode 1998c, 2009a, Maibaum 2000). In view of such a situation it is surprising to note just how much these preschoolers do learn.

4.1.3 Language use: Contextualisation

In general, the teachers in the bilingual preschools proceed just as they do in monolingual ones. The major difference is the use of the new language. The children are left to acquire it from the way it is being used. That is, they go by situational and contextual cues just as learners do in non-tutored L2 acquisition. This implies that preschool teachers need to contextualise the use of the new language as much as possible (e.g. Wode 2004, 2009, Kersten et al., volume II). In principle, this involves the sort of techniques familiar from good preschool teaching anyway.

4.2 Preschool L2 outcomes: Some pilot findings with majority-language children

Given the educational background of this paper, two major perspectives need to be complied with. One is to determine the level of L2 competency the children are likely to reach after three years in preschool. This information is needed to enable the primary grade teachers to decide on, for example, the curriculum, to prepare teaching materials, etc. The second perspective is complementary to the first one. The teachers

need to be supplied with details as to the actual L2 learning process so that they can make sure that their teaching techniques feed into, and support, the learners' acquisitional processes, rather than that they go counter to them.

The latter information is, again, of two sorts. One is more general in nature, such as whether the children can follow a story, whether they can tell the time, or whether comprehension is ahead of production. The second kind of information needs to be much more fine-grained. What is required are details on the acquisition of the structural properties of the L2. How do preschoolers learn lexical items, phonemes, word order, inflectional morphology, and so forth? Will there be transfer? In which way do the preschoolers use contextual cues for inferring the structure of the new language? Which properties do preschoolers acquire on their own? Are there any that need to be given remedial treatment because otherwise the children are not likely to master them at all?

In what follows, we start out with a brief survey of the overall L2 development and then turn to some specific structural areas, notably, semanticisation, formulaic expressions, phonology, and word learning.

4.2.1 L2 development: Overview

Comprehension precedes production by quite a margin. Within approximately six weeks the daily routines and classroom/group management can be handled in the new language (e.g. Petit 1996, Petit & Rosenblatt 1994, Westphal 1998, Berger 1999, Wode 2001). Among the first elements to be picked up very early are the formulas and formulaic expressions that denote frequently recurring rituals, such as greetings, farewells, commands to quiet down, to clear up, to brush one's teeth, to take one's coat off, to head for the playground, etc. In the beginning, the children do not necessarily understand the structure and/or the meaning of such expressions in a target-like way, but the meanings they do attach to them tend to be close enough to the situation to serve their purpose (e.g. Vesterbacka 1991, Weber & Tardif 1991, Westphal 1998, Tiefenthal 1999, Maibaum 2000, Wode 2001).

Vocabulary items, in particular, those denoting frequently used objects and/or popular activities come in fast (e.g. Petit 1996, Petit & Rosenblatt 1994, Westphal 1998, Tiefenthal 1999, Maibaum 2000). Moreover, formulas and lexical items provide the way into the acquisition of phonology right from the beginning. Even for 3-year olds there is transfer from the L1 (Petit 1996, Berger 1999, Tonn 1999, Lauer 1999, Wode 2001, 2003, 2009a, b). This transfer follows the pattern familiar from L2 learners aged 4;0 and older as attested for other L2 learning situations (e.g. Wode 1981).

Syntax is much slower to develop. Depending on the preschool programme, it often remains rudimentary, at best, till the end of preschool. It may take two years or more before the first prepositions and other functors appear, if at all. Inflections tend to be still later (e.g. Petit 1996, Petit & Rosenblatt 1994, Wode 1998c, 2001, 2009b).

Such generalisations are problematic or misleading for two reasons. First, the children tend not to make much use of their new language even after three years. As indicated above, most of the time there simply is no need to do so. Therefore, in order to determine what these children do know, the necessity has to be created experimentally. Second, generalisations like the above are too global to allow for insights into the learning process that are likely to be helpful to the primary grade teachers to understand this process and to adjust their way of handling the children. Therefore observational techniques need to be supplemented with experimental ones to study specific issues.

Various techniques have been used so far, in particular, picture cards for identification and labelling tasks to test for word acquisition; acting out roles via hand puppets as a window on how the children semanticise what they hear; and various other designs to test for fast mapping and lexical principles. Note also that any task that involves production automatically yields data for phonological analysis as a by-product.

4.2.2 Semanticisation: Formulas and formulaic phrases

As pointed out above, frequently recurring items, i.e. words and/or phrases tend to be mastered very early. Although the children may be using them in a way that fits the situation there is no guarantee that they understand the structure of such strings nor that the meaning attached to these expressions is as required by the target. This can be checked by asking the children to participate in using hand puppets to act out certain situations that are familiar to the children from their everyday preschool experience (Weber & Tardif 1991).

For example, the child is asked to help out as an interpreter. There are two puppets. One is a newcomer to the preschool and does not understand English or French, respectively; the other one is not. The child is asked to take the part of the experienced puppet. Some careperson will then give directions in the new language. The newcomer will ask the other puppet what these directions mean. The experienced puppet/child then explains the situation in German thereby showing whether and to what extent s/he got the message. The same procedure can be used to elicit production in the new language by suggesting that a non-German speaking puppet is on visit in the preschool. Directions are then given in German so that the non-German speaking child can ask to have it translated into the new language (e.g. Westphal 1998, Tiefenthal 1999, Maibaum 2000). Table 2 has some telling examples from the French-German preschool at Rostock. Note that there is a wide range of individual variation among the children and that target-like renderings as in (4) of Table 2 are, by far, the exception.

Ex.	French formula	German equivalent	child	child's German utterance
1	on va chanter une chanson (let's sing a song)	lasst uns ein Lied singen (let's sing a song)	G L	tschüss (bye) Schuhe (shoes)
2	on va jouer (let's go and play)	lasst uns etwas spielen (let's go and play)	A B I, L	Hände waschen (wash your hands) waschen gehen (go and wash) guten Tag (good day)
3	on range maintenant (we need to clear up)	Lasst uns aufräumen (let's clear up)	I	'ne Orange (an orange)
4	on va dehors (let's go outside)	Lasst uns rausgehen (let's go outside)	I	dann gehen wir raus (then we go outside)
5	on rentre (we go back in)	wir gehen wieder rein (we go back in)	A, B C	aufräumen (clear up) Eisenbahn spielen (play with the toy train)

Tab. 2: Some translations of formulaic expressions derived from role play experiments using hand-puppets by German children from the French-German bilingual preschool in Rostock. Examples are numbered on the left. Capital letters indicate individual children (Wode 2001, excerpted from Westphal 1998).

Note that all of the children's explanations in Table 2 capture some aspect of the situation in which such phrases tend to occur. Moreover, more often than not, the renderings reflect the children's interest in the situation or its effects rather than the careperson's intention or the literal meaning of the phrase (5). This also includes misconstruals on the part of the children, such as mistaking a word like *chanson* (song) for *chaussures* (shoes) (1) or *on range* (we are going to clean up) as *orange* (orange) (3). And situational misinterpretations, like mistaking singing a song as the leave-taking ritual as in (1), is anything but uncommon.

Note furthermore that the regularities behind the semanticisation of formulaic expressions as can be inferred from the data of Table 2 are not restricted to the Rostock preschool or to L2 French. Comparable data are available for L2 English from the Altenholz IM preschool (Maibaum 2000) and for L2 German acquired by L1 Italian speaking children learning German as an additional language via IM in preschool in Northern Italy, although a modified version of the puppet procedure was used in the latter case (Wode & Girotto 2008). Moreover, it should be pointed out that the way the preschoolers handle formulaic expressions is quite parallel to what is known about the acquisition of formulas and frames in non-tutored L2 acquisition (e.g. Hakuta 1974, Fillmore 1976, Wode 1981, Bahns et al. 1986).

4.2.3 Phonology

Various theoretical issues aside, one view, popular both with lay people and researchers, is that young children learn additional languages easily, effortlessly, at native-like proficiency levels, in particular, with respect to phonology, and that young children do it in a different way than adult learners. The preschool data now available are not consistent with these earlier views. Instead they are in line with such critical reviews as,

e.g., Wode (1994b), Harley (1986), Harley & Wang (1997). Our data show that even three-year olds rely on transfer from their L1, that their transfer patterns match those reported for older learners ranging from age 6;0 to age 50 or older, and that certain target sounds are not acquired via transfer (Kersten 2002). Moreover the detailed studies of the development of the pronunciation of the IM preschoolers in primary school show that they can, and, in fact, do, reach an impressive level of proficiency, although they tend to retain a slight German accent based primarily on the retention of certain syllable-structure processes of German (e.g Sieg 2004, Osbahr 2007, Eckhardt 2010, Ulbrich 2010, Wode 2009b, in prep.).

4.2.4 Word learning

The L2 acquisition and development of the lexicon in preschools and elsewhere poses the same paradox as L1 acquisition or non-tutored L2 acquisition. If L1 children can be assumed to comprehend 14.000 words by age six (e.g. Templin 1957, Carey 1982, Fenson et al. 1993), they cannot possibly spend as much time per lexical item as students normally are allowed to do when learning new words via LAS. Moreover, the paradox remains even if a more conservative estimate is taken of, say, 7.000 words by that age. To account for such figures it needs to be assumed that learners apply some kind of tactics that allow them to map meaning on to what they hear on the spur of the moment, i.e. without any prolonged deliberations. This phenomenon is known as *fast mapping*. The notion was first developed by Carey & Bartlett 1978 for L1 acquisition research. Note that the same issue needs to be raised for L2 acquisition in view of the fact that it may take L2 learning children no longer than half a year to build up their L2 lexicon so that they are difficult or impossible to identify as non-native speakers on account of their vocabulary (Wode 1988/1993, Wode et al. 1992). To get at this issue Andreas Rohde and Christine Tiefenthal started a series of experiments in which the research techniques developed in recent work on fast mapping and lexical principles in L1 acquisition were adapted to the L2 preschoolers at Altenholz.

That the IM preschoolers were, in fact, learning the lexical items from the input they got could easily be checked via picture identification and/or picture labelling tasks. These experiments showed that the children were, indeed, learning words. More than that, the preschoolers were doing it in age-appropriate ways (Westphal 1998, Maibaum 2000).

Building on these findings Rohde and Tiefenthal checked whether fast mapping and lexical principles were also available for L2 acquisition. The results clearly showed that they were (e.g. Rohde 1999, 2005, Tiefenthal 1999, 2008, Rohde & Tiefenthal 2000).

To illustrate the nature of lexical principles consider Markman's taxonomic assumption. It refers to the way children extend their words to new objects (e.g. Markman 1989, 1994, overview in Rohde 2005). Suppose a child is shown a picture of a cap and it is told that it is a *sib*. The child is then shown more pictures one of them denoting another, although different, cap and the other one some object that is functionally, i.e. thematically associated with it, such as a head, because caps are normally worn on

one's head. The child is then asked to find another *sib*. Will s/he point to the *cap*, that is, will s/he choose taxonomically, or will s/he point to the head, i.e. functionally? The solution depends on the way the question is phrased. If the child is given the word *sib* and then asked to find another *sib*, the majority of the subjects tend to point to the cap. However, if the child is not given the word by simply asking: "Do you see this? Show me another one like it" then most children point to the head. That is, they generalise on a functional basis, although the task in both conditions is, clearly, to elicit a taxonomic choice. Note that Rohde found this pattern for L1 and L2 children.

Rohde concluded that drawing the children's attention to a lexical item functions like a challenge for category formation. One may want to move a step further and suggest that this challenge for forming new categories probably contributes to the fact that bilingual children have often been found to be cognitively more advanced than their monolingual peers (see, notably, Bialystok 2001, 2005). Moreover, note that such principles are not categorical in the sense that every learner has to go by them. Rather, such principles function like default procedures that can be overridden if there are compelling reasons to do so (Rohde 1999, 2005). In addition, the primary school data reviewed below show that that these tactics remain available to the individual learner even after they have been used for L1 acquisition.

5. Primary school

In keeping with the IM model outlined in the beginning of this paper we continue to trace the development of the IM preschoolers as they progress through primary school. Recall that English is continued in grade 1 via partial IM amounting to around 70% of the curriculum. Only German language arts is taught in German. Note that we do not only test the children for their English, but we also include their L1 development and their development with respect to subject matter. In fact, parents tend to be much more concerned about the latter two than about the nature of the children's English.

5.1 L1 (German) reading comprehension

This aspect is particularly important for the German scenario, because of the shamefully low scores the PISA evaluations continue to attest for reading comprehension among 15-year-old German students. Their native-language reading comprehension has been shown to be average or even below average in comparison with other countries. Note that these children have had all their instruction throughout primary school in German, their native language. Therefore, it is no surprise that many parents get concerned about the IM children's L1 reading. The parents argue that given the fact that the IM children spend around 70% of their teaching time exposed to English, and only 30% in contact with German, their L1 reading abilities cannot possibly match those of their peers who are taught in German all the time. There is no justification for

this concern at all; in fact, given the research results presently available from Altenholz and elsewhere the situation is just the other way around.

The IM children's L1 reading comprehension is tested using the *Hamburger Lesetest* (HAMLET (Lehmann et al. 1997)). Three cohorts of a little more than 20 children each have so far taken this test. The findings agree across the cohorts. On average the IM students perform 5-10% and sometimes even 15% above the national average for students who have been taught in German only (Bachem 2004, von Berg 2005, Lossin 2009b). Comparable results are reported by Zaunbauer and her co-authors in a series of studies using other test instruments and evaluation procedures (Zaunbauer et al. 2005, Zaunbauer & Möller 2006, 2007). Their subjects included some of the Altenholz IM children, but they also recruited additional ones from a number of primary schools that offer English IM by following more or less closely the Altenholz model. In these studies it was found that the IM children performed as well as their non-IM peers or better in L1 reading and mathematics. The authors even suspect that the IM children's cognitive abilities measurable in terms of IQ or some equivalent may have been enhanced by their IM experience. These findings, therefore, provide further support for the claim that being taught in a language less well known than their L1 tends to lead IM children to develop reading strategies that are more efficient than those that tend to originate from being taught in one's L1 (Wode 2004, 2005, 2009a). Note also that these findings from Germany are neither radically new nor unique. They are in line with the reports from, e.g., Canada with respect to English in French IM (overview Genesee 1987, Wesche 2002) or the British isles with respect to English in Gaelic IM (Johnstone et al. 2004).

5.2 Subject matter

Since all IM teachers at Altenholz have many years of experience in teaching primary school children using German as the language of instruction, testing for subject matter was not regarded as a top priority. It was assumed that the teachers would notice any such deficits once they occurred. In fact, this regularly turned out to be the case during the first half of grade 1. That is, the IM students tend to be slightly behind during the beginning. However, these deficits tend to disappear on their own by the end of grade 1.

5.3 L2 (English) proficiency

The overwhelming bulk of our research has gone into documenting and analyzing the structure of the kind of English developed by the IM children. These analyses do not lend themselves very well to comparisons as to the level of proficiency of the IM children vs. children from other programmes. For one thing, the latter sort of data is presently not available, nor is it likely to become available in the near future either. Therefore, a different option was brought into play, namely, to find a test instrument that is widely used internationally and that allows for such comparisons without specifying

how the children were taught or exposed to English. These considerations led Thielking (2006) to opt for the Cambridge Young Learners English (CYLE) flyers version. This instrument tends to be administered each year to more than 70.000 students from all over the world irrespective of the teaching method used. The only prerequisite for participation is that the students must have had at least 250 hours of English instruction. So far two cohorts from Altenholz, each numbering around 20 children, have taken the CYLE flyers version. One cohort came out as the top group world-wide, the other one was among the top groups.

5.4 The structure and development of IM English

The structure and development of IM English has been our main focus for a number of reasons ranging from teacher training to being able to convince parents and decision makers of the advantages of IM teaching.

To test for the – structural – nature of the IM children's English they are asked to tell the picture story *Frog, where are you?* (Mayer 1969) to an interviewer in English. Mayer (1969) has been used frequently as a research instrument both for L1 and L2 acquisition. At Altenholz, this test is administered towards the end of each grade level. That is, the test instrument and the task is the same each year. The advantage of this procedure is that it provides for a detailed longitudinal record of the IM children's L2 development through grades 1-4.

The narratives produced by the students can be analyzed with respect to a wide range of structural properties. So far we have looked at verb inflections (e.g. Beier 2001, Imhoff 2002, Kersten et al. 2002, Sieh-Böhrnsen 2004, Meier 2005, Strand 2007, Kersten 2009, Meyer 2009), negation (Heye 2007, Rasch 2008); subordinate clauses (Strehl 2007); phonology (e.g. Oldörp 2002, Sieg 2004, Osbahr 2007, Eckhardt 2010, Ulbrich 2010); communication strategies (e.g. Steigenberger 2006, Daschke 2007, Joswig 2007, Rosen 2008); and various aspects relating to vocabulary development, e.g. type-token ratios, word class distribution, verb-suppliance ratios, (e.g. Sauer 2002, Hempel 2004, Jessen 2009, Renner 2008, Grimm 2008), word formation processes, notably, compounding (e.g. Daschke 2007, Joswig 2007, Grimm 2008, Rosen 2008, Garbsch-Rathjen 2010), cohesion and coherence (Maschewski 2002, Möller 2003, 2010), fast mapping (Güldensupp 2008, Schweers 2010).

There is not enough space to summarise the findings for each of the topics above. Only fast mapping and word formation can be singled out. The reason for this choice is that both of them highlight in a very clear way the basic idea of IM, namely, that the children activate their natural language learning abilities, i.e. those that they were never taught.

5.4.1 Fast mapping

The way the frog story is administered allows for some insights into fast mapping. Recall that each student does the test twice. The first time, labelled the A-version, the

student is told that the interviewer speaks English and German. This allows us to ask the child to use English, but to also suggest that in case there is problem, s/he may switch to German, for example, to ask for an English word, to clarify some picture, or the like. The second version, the B-version, follows approximately 20-30 min. later. This time the child is told that this interviewer speaks only English so that s/he can no longer use German.

Fast mapping is said to have occurred if a word asked for in the A-version is reproduced in the B-version. Note that there is no compelling reason for the child to use the new term. S/he may paraphrase it, create a new word on his/her own, code-switch into German, or avoid the respective episode altogether. Note, therefore, that only if the word asked for in the A-version is actually reproduced in the B-version can the child be credited with an instance of fast mapping. By the same logic, non-occurrence does not signal that there was no fast mapping. It may well have occurred; but we simply cannot tell.

grade	**1. grade**			**2. grade**			**3. grade**			**4. grade**		
Test vers. / child	**A**	**B**		**A**	**B**		**A**	**B**		**A**	**B**	
B1	4	0	0%	5	2	40%	2	0	0%	0	0	0%
B2	14	3	21,4%	9	5	55,6%	6	2	33,3%	0	0	0%
M3	11	0	0%	11	4	36,4%	6	3	50%	9	2	22,2%
M4	6	0	0%	7	5	71,4	6	3	50%	4	3	75%
V5	14	0	0%	7	3	42,6	9	4	44,4%	13	5	38,5%
B6	12	4	33.4%	4	2	50%	6	1	16,7%	12	4	33,3%
M7	3	2	66,7%	13	6	46,6%	3	1	33,3%	6	4	66,7%
M8	7	3	42,8%	5	2	40%	5	3	60%	4	2	50%
M9*	15	5	33,4%	10	7	70%	-	-	-	-	-	-
M10	8	2	25%	5	3	60%	1	0	0%	1	1	100%
V11	10	5	50%	3	3	100%	5	1	20%	5	2	40%
B12	3	1	33.4%	5	4	80%	4	2	50%	2	2	100%
B13	11	3	45,5%	24	13	54,2%	11	9	81,8%	19	6	31,6%
B14	4	1	25%	5	3	60%	9	4	44,4%	3	2	66,7%
B15	9	4	44,5%	9	5	55,6%	6	4	66,7%	5	0	0%
B16	4	2	50%	9	8	88,9%	3	1	33,3%	7	6	85,7%
B17	8	2	25%	4	2	50%	10	5	50%	6	1	16,7%
V18	11	6	54,5	6	4	66,7%	14	2	14,3%	7	2	28,6%
total	**154**	**43**	**27.9%**	**141**	**81**	**57.5%**	**106**	**45**	**42.5%**	**103**	**42**	**40.8**
range	**3-15**	**0-6**	**0-66.7**	**3-24**	**2-13**	**36.4-100**	**2-14**	**0-9**	**0-81.8**	**0-19**	**0-6**	**0-100**
average per child	**8.6**	**2.3**	**27.9%**	**7.8**	**4.5**	**57.6%**	**6.2**	**2.7**	**41.9%**	**6.1**	**2.5**	**40.9%**

Tab. 3: Reproduction of the words asked for in the A-version and reproduced in the B-version. Number of words in A absolute; number of reproductions in B absolute and in terms of percent of A. *Child changed school at the end of grade (modified on the basis of Schweers 2010)

The analysis is carried out in the following way: We first establish the fast mapping profile for each student individually by determining the percentages at which the words asked for in the A-version were reproduced in the B-version. This is a given child's fast mapping ratio (Table 3). The next step is to determine the average fast mapping ratio for the entire class and to indicate the range of individual variation. The former is presented in Figure 1, the latter in Table 3. In addition, we also look at whether fast mapping may be restricted to certain word classes (Figure 2). The final move is to check whether the IM children differ in their fast mapping ratios as a function of their prior knowledge of English when they entered primary school (Figure 3). Recall that this grouping is given in terms of the B-, V-, M-distinction.

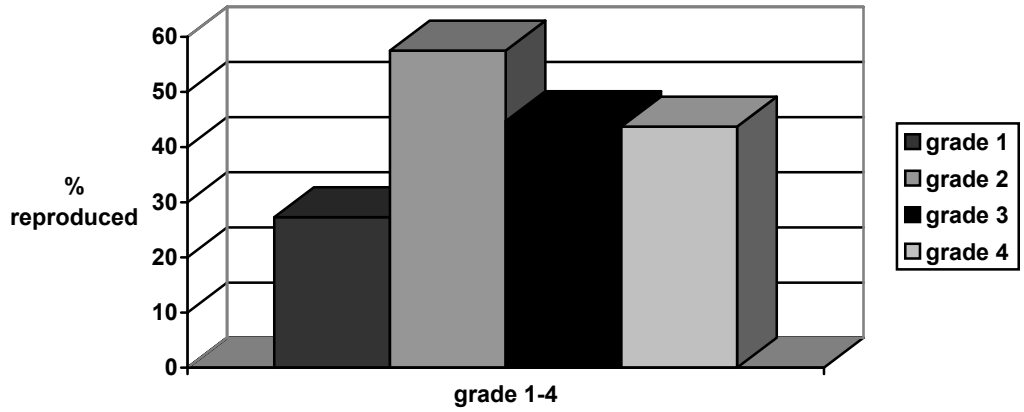

Fig. 1: Reproduction ratios in percent for the words asked for in the A-version and reproduced in the B-version. Group totals as a function of grade level (modified on the basis of Schweers 2010)

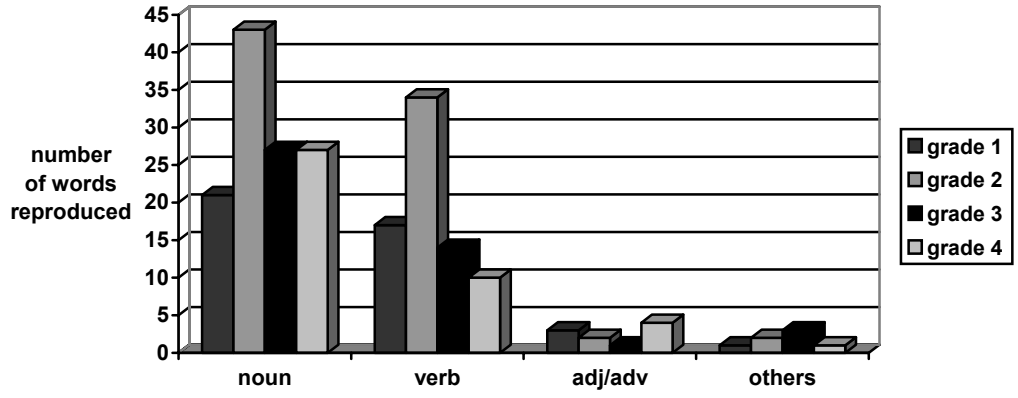

Fig. 2: Reproduction of words asked for in the A-version and reproduced in the B-version. Absolute numbers as a function of word class and grade level (based on Schweers 2010)

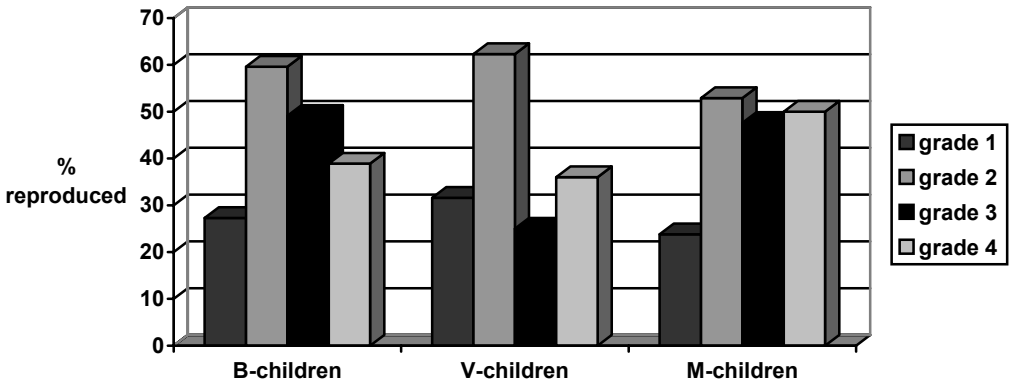

Fig. 3: Percentages of the reproduction of the words asked for in the A-version and reproduced in the B-version as a function of prior knowledge of English according to B, V, M (based on Schweers 2010)

All in all, it seems that among the conclusions that can be drawn from Table 3 and Figures 1-3, four are particularly important with respect to language acquisition across the age range: First, the data clearly show that fast mapping did occur with each IM child. Second, although fast mapping with nouns and verbs by far outnumbers its occurrence with other word classes, there is no compelling evidence to suggest that fast mapping may be restricted to certain word classes. The most likely reason why nouns and verbs predominate is probably due to the fact that they are more essential for telling the story than the other word classes. Third, although the individual fast mapping ratios tend to vary from child to child, this cannot be taken to indicate that the children differ as to their ability for fast mapping. They can all do it. Fourth, the differences in the individual fast mapping ratios do not justify the assumption that there may be changes in the ability to fastmap with respect to the B-, V-, M-distinction nor with respect to age in general.

Note that the notion of fast mapping is somewhat fuzzy. As Rohde (personal communication) points out, in a naturalistic setting it is difficult or impossible to decide whether a given speaker when asking for a word does, or does not, know it; or whether he is familiar with it, but cannot remember it at the particular moment. The way the frog story test was administered in the Altenholz experiments does not allow for conclusions of the first sort, but it is not ruled out either.

5.4.2 Compounding

The ability to create compounds is a powerful tool to overcome gaps in one's vocabulary not only with L2 learners, but with speakers in general. Given the fact, that word formation is rarely, if ever, taught in traditional LAS classrooms, it is all the more important to determine whether the IM context will enable children to acquire word formation rules on their own. The occurrence of compounds in the frog story narratives is a clear indication that the answer is yes.

There are several situations in the frog story where the vocabulary required is such that it is practically impossible not only for L2 learners to be familiar with the L1 terminology. This includes words like *beehive*, terms relating to family structure, the names of certain animals, notably, *deer, mole, owl*, and *tadpole*, or some of their typical properties like *antlers*.

grade	A-version			B-version			A + B	
	child	word		child	word			
3	**B1**	barn owl		B1	barn owl 2			
	B2	-		B2	tree hole frog parents			
	M3	mouse hole 2		M3	mouse hole 2 beehive 3			
	M4	tree hole girlfriend		M4	boyfriend			
	V5	frog noise frog family		V5	frog noise frog family			
	B6	bee nest 3 tree hole frogs baby(s)		B6	frogs babies			
	M7	tree hole lady frog baby frogs		M7	bee house lady frog baby frogs			
	M8	bedroom 2 bee nest 2		M8	bedroom windowsill 2 bee nest 3 frog family			
	M10	-		M10	bee house			
	V11	mouse hole		V11	stunk hole 2			
	B12	bee homes baby frog frog family		B12	frog family			
	B13	-		B13	windowsill hamster hole bee safe baby frog(s) 3			
	B14	window-silf (sill)		B14	window-silf bee nest frog noise			
	B15	-		B15	beehive *Bienen* hole			
	B16	bedtime		B16	bee nest 2			
	B17	windowsill 2 wasp nest 2		B17	windowsill nest hole			
	V18	bee nest 2 baby frogs		V18	bee nest 4 frog family			
total		**Ty 16**	**To 32**		**Ty 21**	**To 47**	**Ty 24**	**To 79**
average per child		**0,94**	**1,88**		**1,23**	**2,76**	**1,41**	**4,64**

Tab. 4: Compounds in the A- and B-versions of the frog story narratives according to child (grade 3)

Children who have never been into situations involving such creatures are not likely to be familiar with the pertinent terminology in their L1, let alone in their L2. To resolve such gaps in their vocabulary the IM children follow various communication strategies, all of them familiar from L2 acquisition research. For instance, they may code-switch into German; they may ask for the missing word; they may paraphrase the notion; they may avoid the episode altogether; or they may attempt to create a new term. As for word formation, the IM students already make use of it towards the end of grade 1; and they continue to do so till the end of primary school. However, throughout this entire time span, the evidence for word formation in the frog stories relates exclusively to compounding.

As for the analysis of the compounds, the starting point is the individual profiles for each child for each of the 4 grade levels. These profiles list all the compounds produced by a given child. Table 4 is to illustrate such profiles on the basis of the narratives of grade 3. These individual profiles then form the basis for calculating the averages per child (Table 5). We list the total number of compound types and tokens produced per grade level, the range of variation, and the average number of compounds produced per child. Table 6 differentiates the data of Table 5 according to the B-, V-, M-distinction.

grade	1		2		3		4	
	ty	to	ty	to	ty	to	ty	to
total	10	33	20	54	24	79	29	87
range	0-2	0-3	0-6	0-9	1-4	1-11	1-6	1-12
average per child	0.55	1.83	1.11	3.0	1.41	4.64	1.70	5.11

Tab. 5: Types and tokens for the compounds as a function of grade level. Total per grade and averages per child. The figures are based on the addition of the A- plus the B-versions of the frog story narratives.

grade / prior Engl.	1		2		3		4	
	ty	to	ty	to	ty	to	ty	to
B total	4	5	16	30	18	34	15	48
average p. child	0,44	0,55	1,77	3,33	2,0	3,77	1,66	5,33
V total	4	18	4	9	7	19	10	14
average p. child	1,33	6,0	1,33	3,0	2,33	6,33	3,33	4,66
M total	5	10	9	15	13	28	12	24
average p. child	0.83	1.66	1.5	2.5	2.6	5.6	2.4	4.8

Tab. 6: Number of compounds and group averages in terms of types and tokens as a function of grade level and prior knowledge of English according to B, V, M. The numbers result from adding test versions A + B.

Note that all IM children at some point produced compounds (as in Table 4). There is a wide range of individual variation in terms of the number of compounds per child, and the children do not necessarily produce the same compounds (Table 4). But their

basic structure is the same. That is, all the compounds probably created by the children on their own are endocentric compounds (Table 4). Moreover, transfer from German shows up in many ways. Just as with the other structural areas, by the end of grade 4 the B-, V- and M-children have become indistinguishable on the basis of their English compounds (Table 6). That is, all IM children produce compounds and the range of variation with the M-Children is the same as the one found with the B- and V-children. These findings imply that all children have the ability to develop compounds, irrespective of whether they did, or did not, attend the English group in the bilingual preschool.

I. Definitely *native-like*
pet frog, glass jar, waterfall, girlfriend, boyfriend, barn owl, mouse hole, headache, bedroom, moon light, window-sill, beehive, bedtime, wasp nest
II. Definitely *unintelligible*
frog glass, outgo, *Bienen* hole, *Bienen*nest, *Bienen* hive, stunk hole, window-silf, window-sild, window-silk, window-silt, window bench, bee wick, wee running, bee stick, bee stickes, bee stucks, bee stock, bee have, bee hide
III. Uncertain whether *native-like*
frog noise, skunk hole, frog family, earth hole, dog kiss, tree hole, owl hole, hamster hole, baby frog, lady frog, tree stem, bee nest

Tab. 7: Acceptability rating for IM compounds by adult native speakers of English from the US, GB, Australia, and South Africa (Lossin 2009a)

One of the key issues is to determine the origin of the compounds produced by the children. There is a sizeable number of peculiarities to account for. Their detailed analysis is still in progress. Table 7 is intended to provide some directions for these analyses. It is based on a questionnaire presented via e-mail or telephone to adult native speakers from various parts of the English-speaking world (Lossin 2009a). These informants were not familiar with the frog story, they could not see the pictures, nor were they given any details about either the story or the pictures. The speakers were asked to decide for each compound whether it was (I) native-like ("that's okay"), definitely unacceptable ("I don't get it. What does it mean?"), or acceptable but not current ("I understand but that's not the way we would say it").

The compounds under (I) in Table 7 are target-like and they are current in present-day English, for instance, *girlfriend, boyfriend, waterfall, bedroom, bedtime, headache,* and many others. Such compounds can be learned from the input the IM children get exposed to in class. Therefore, there is no need to assume that such items are created by the IM children on the basis of word formation rules. These words were probably acquired as single lexical items without any recourse to their internal structure as compounds.

The compounds listed under (III) may not be current, but they may nonetheless fit current English usage so that native speakers will understand and accept them, although

they tend to note that these items are not the accepted terms. For instance, *baby frog, bee nest, frog family, dog kiss, tree stem,* or *owl hole* are not the accepted terms in present-day English, so that the children's compounds cannot be derived from it, let alone from the input provided by the IM teacher. German may be a more likely source, because of the underlying metaphors expressed in the IM children's attempts at English, e.g. *tree stem, frog noise, earth hole, frog family*. Whatever their source, these compounds must have been created by the children on their own.

Note that in many cases the IM children resolve their lexical problems in the same way as their native English-speaking age mates do whenever they lack the pertinent terms. After all, which child can be expected to be familiar with, e.g. *tadpole, beehive,* or *beaver lodge*, if s/he is growing up in some inner city area, where children may never get into a situation pertinent to such things?

And, as one would expect, there are many ways in which German, the children's L1, comes into play ranging from slight touches of German, as in some of the examples listed under section 3 and discussed above, to mixing English and German as in *BIENEN hole, bee nest/NEST, bee STOCK, or BIENEN hive.* In other cases the morpho-phonology may be thoroughly English but the meaning may just as thoroughly be German. For example, *window bench* was not used to refer to some bench near the window but the reference was to *window-sill.* It is items like *window bench* that tend to get miscued or rejected as unacceptable by native speakers (e.g. Lossin 2009a, Gregor 2010).

6. Why preschools?

The considerations above and the research findings provide a basis for developing a number of arguments why preschools need to be included if the 3^{+}-language formula is to be met. Some arguments have to do with the structure of the IM programme; others relate to outcomes; still others concern the children's cognitive development; and some relate to financial aspects.

Recall that there is a consensus among IM researchers and practitioners that for IM to produce good results requires an adequate number of years of continued and intensive exposure to the target language (e.g. Wode 2009a). Given the structure of the German school system and given, in particular, the fact that in most cases the children only go to school in the morning, i.e. for half a day, it was argued in the introduction (section 1) that, from the point of view of continued exposure, preschool and primary school should be linked so that by starting in preschool at 3;0 and continuing till the end of primary school the children can be given seven years of continued exposure to their first foreign language. In fact, as shown in section 5.3, research shows that this time span tends to produce the kind of L2 proficiency level that places the Altenholz IM children among the top of what schools can achieve world-wide with respect to teaching English to ten-year-olds. It is probably safe to assume, therefore, that these chil-

dren, once they leave school, should be able to compete successfully on the international job market.

As for IM outcomes, the latter can be thought of as post-hoc justifications for the early start at 3;0. The results reviewed in sections 4-5 for the Altenholz IM children are very clear: L1 (German) reading comprehension, subject matter taught via IM, and L2 (English) proficiency did not turn out to be inferior to the results based on other teaching approaches. In fact, in line with the results from IM teaching in other countries L2 (English) proficiency tended to be by far superior, subject matter was not deficient, and the children's L1 development also benefited from IM.

There is less evidence yet concerning the impact of IM on the children's cognitive development. The research from other countries shows that early bilingualism tends to enhance children's cognitive development. Note that this also applies to early L2 bilingualism including IM (see Baker 2001, Bialystok 2001, 2005, Wode 2005, 2009a, Festman & Kersten 2010 for reviews). Recall also that the little research that has so far come out of Germany, namely, Zaunbauer et al. 2005, Zaunbauer & Möller 2006, 2007, is in line with this.

As for the issue of why to include preschools, there is one truly crucial argument, because it is particularly pertinent to the European perspective underlying the Altenholz IM approach. This argument relates to the newcomers, i.e. the M-children described in section 3. To what extent can newcomers without any, or very little, prior knowledge of the new language join the IM programme in grade 1 of primary school or even later and still arrive at the same level of proficiency as the other children who started on English at the beginning of preschool? The research results on the M-children are quite clear: At first the latter are behind, but they do catch up so that by the end of grade 4 they cannot be identified on the basis of their English any more. This is so with respect to all the structural areas of English evaluated so far (section 5.4) as well as their knowledge of subject matter (section 5.2). Note that these achievements are not due to any remedial teaching on the part of the teachers. The newcomers do it on their own. However, to be able to do so the M-children need some trail blazers to follow. It is only the more advanced children, i.e. those with 3 years of English in preschool, who can fulfil this role. The B-children are indispensable, and so is their preschool.

Finally, there is the financial argument. Many people tend to assume that innovations require a good amount of financial support and that this also applies to IM. This is not correct. Since IM does not require any additional periods to be taught, no additional teachers need to be hired. As a consequence, IM is the least costly approach to teach a foreign language available at the present. Paradoxically enough, although no additional periods need to be taught, the level of intensity of exposure to the new language is by far the highest that can be reached in any foreign language teaching approach. Note that this effect is not due to any reduction in the time allotted to other subject areas, but simply because the same teacher serves two subject areas at the same time, namely, the new language and the particular subject.

7. Conclusion

Although preschools set up to promote bilingualism are anything but rare, there is hardly any detailed research on how they need to be organised and function in order to produce the kind of results needed not only within the EU. Therefore, whether intended as such or not, a project like the one at Altenholz is likely to have a pilot function both with respect to providing a good example in terms of best practice as well as with respect to the scientific insights that are required to understand why IM preschools are so successful once they follow the regularities of L2 acquisition.

What is needed on the part of the practitioners is to accept the fact that children at any age acquire additional languages best if they learn them from the input they get via intensive exposure to the target language through everyday interactions. To disentangle the details of the WHYs and HOWs should be left to experts in the various fields, notably, to psycholinguists.

From this point of view the ELIAS project can truly be said to have been most timely, because it has taken some of the steps that needed to be taken at this point. Amongst other things, the range of languages has been enlarged beyond English; the spectrum of structural properties targeted has been broadened considerably, for example, by including early L2 grammatical development from the point of view of comprehension; some attempts have been made to sharpen old concepts, notably, the notion of input and how to quantify it; processability theory and implicational analysis have been included; and the range of socio-cultural settings for IM preschools has been enlarged, amongst others, by the zoo scenario – probably the most heart-warming innovation of them all, at least from the children's and the parental point of view. And above all, the ELIAS project was rightly aimed at preschools, because this is the time span that so far has attracted the least amount of attention from L2 acquisition researchers.

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Results of the ELIAS Research Studies: A Summary[1]

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This chapter provides an overview of the most important research results as presented in the first volume of this publication. It summarises the major findings and their implications from the longitudinal study carried out in 11 preschools between 2008 and 2010. The chapter comprises an overview on the nature of language input by the L2 teachers in the bilingual preschools (section 1), the most important findings of the children's L2 vocabulary and grammar comprehension (sections 2, 3 and 4), the acquisition of the mother tongue in the project's seven German-English preschools (section 5), a report on intercultural encounters in the bilingual preschools (section 6), and a documentation of the concept of "green immersion," i.e. bilingual environmental education in the project's only zoo preschool at Magdeburg Zoo in Germany (section 7). A more detailed academic description of each study can be found in the respective chapters in volume I. Each section in this chapter corresponds to the chapter with the identical title. This chapter will also form part of the project's final report, which is submitted to the European Commission. The report can be downloaded from the project's homepage at www.elias.bilikita.org.

1. The Input Quality Observation Scheme (IQOS): The Nature of L2 Input and its Influence on L2 Development in Bilingual Preschools

1.1 Introduction

Second language input has been dealt with in several studies supporting different views of the role that input may play in second language acquisition. The necessity of input in second language acquisition is undisputable; the subject of debate has rather been on what the input should look like and how it turns into acquisition. One of the most influential theoretical positions has been the Input Hypothesis (Krashen 1981), where he claims that comprehensible input is the single crucial and necessary factor in

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acquiring a language and that input becomes comprehensible through simplification and with the help of contextual and extralinguistic clues. The role of comprehensible input in second language acquisition was further stressed by Michael Long (1980), but with a greater emphasis on interactive input. Finally, Swain pointed to comprehensible output as a crucial factor in negotiation of meaning that leads the learners to native-like speech (Swain 1985).

One of the ELIAS project's aims was to investigate the nature of input provided in bilingual preschools and, therefore, to develop an instrument which is able to capture the quality of the input offered by the L2 teachers. The assumption was that the quality of input matters in SLA, i.e. that a qualitatively more beneficial input correlates with a more successful L2 development. As quantifiable data can be compared more easily, the ELIAS team developed a quantitative observation tool to gather quantifiable data in the different preschools which would describe the input and interactive features used in the preschools. Already-existing quantitative observation methods served as a first point of departure: For example, Ullman & Geva (1983) combined two instruments in one scheme with TALOS (Target Language Observation Scheme) whose first part is rated in real-time in the classroom and its second after the lesson. Such a comparison ensures a better control of interrater agreement. The most well-known and used observation scheme is COLT (Communicative Orientation of Language Teaching, Allen, Fröhlich, and Spada 1984). COLT was developed with the purpose of investigating the effects of instructional variables on learning outcomes and aimed at a systematic description of instructional practices and procedures in different L2 classrooms.

However, the ELIAS project is concerned with bilingual preschool settings which differ in many respects from the L2 classroom. Therefore the existing observation schemes could not be transferred directly to the ELIAS project's needs but were used as a basis for the development of the *Input Quality Observation Scheme* (IQOS), which accounts for the peculiarities of the preschool setting.

Just as COLT or TALOS, the IQOS is an instrument that uses a systematic approach to observations, i.e., it clearly states what is to be observed, by whom and when the observations should take place, and how the observed behaviour should be recorded (Bortz & Döring 2006: 270). The aim of the IQOS is to compare different L2 teachers with regard to their language use and to relate the obtained data to the children's L2 development. A quantitative observation tool was chosen over purely ethnographic observations in order to make the data gathered in the various preschools more comparable.

The IQOS incorporates both low-inference and high-inference categories (see Mackey & Gass 2005: 191ff.). Low-inference categories do not require any judgement and comprise general information, such as the categorisation of a situation and activity or the duration and the overall focus of the activity (i.e. form, when the activity is clearly language centred; form in a communicative context, when specific linguistic elements

are emphasised and embedded in the context of a game/song, or meaning, e.g. genuine discussions or conversations which clearly focus on the content). Furthermore, these categories include information on the number of children who are participating, their average age, etc. The low-inference categories are used in order to obtain background information on the setting of the activity and to facilitate a general description of the observed sequence. High-inference categories, on the other hand, require the observer to decide whether a certain feature is present to a "very low," "low," "high" or "very high" degree. The high-inference categories cover aspects such as quantitative data (i.e. L2 amount, absence of L1 use), input characteristics (i.e. adapted speech, varied input, ritualised language, verbal acknowledgment of children's interactional moves and focus on form), the promotion of comprehension (i.e. contextualisation, explanation & comparison, and ensuring children's comprehension), output (i.e. encouragement and maintenance of L2 output, implicit corrective feedback, absence of explicit corrections and absence of forcing correct imitation) and, finally, whether the children actually listen to the L2 preschool teacher.

Apart from the quality of L2 input, the quantity of L2 input also plays a crucial role in foreign language learning which may be expressed as L2 contact (indexed in month of L2 exposure) or as L2 intensity whose impact on L2 development, motivation, L1 development or transfer has been shown in many studies (e.g. de Jabrun 1997, Kecskes 1998, Pavlenko & Jarvis 2002). Usually, L2 intensity is indexed as the number of L2 classes per week, for example in studies which compare total vs. early immersion programmes and which show that a more intensive exposure to the L2 leads to better achievements in the L2 (e.g., Genesee 1987, Lapkin et al. 1998, Wesche et al. 1994). Similar assumptions may be posited for the preschool context: The higher the L2 intensity is, the better the children will perform in their L2. However, in contrast to the school context, L2 intensity cannot be measured as the number of L2 classes in preschools because the L2 is the medium of communication and not restricted to classes. For the preschool context, L2 intensity would rather include factors such as L2 teachers' and children's attendance time in the preschool per week, opening hours of the preschool and number of children in the institution. This is the first time that the effect of L2 input intensity on preschoolers' L2 abilities has been assessed.

1.2 Method

The IQOS was used by the observers during their weekly observations. The checklist was used with every L2 teacher who participated in the ELIAS project and who provided input to the preschool children. The observers selected an activity in which an interaction between the L2 teacher and the children took place, and in which the input was rated by means of the checklist. Observed interactions typically lasted less than 10 minutes, so that several sequences could be rated during one observational sequence.

The IQOS includes 9 low- and 15 high-inference categories. In every observed activity, each of the high-inference categories is given a score on a Likert scale from 1 to 4, with 1 indicating a 'very low' presence of the observed category, 2 indicating a 'low' presence, 3 a 'high' presence and finally 4 signalling that the category was present in the observed situation to a 'very high' extent. It was hypothesised that a very high use of a certain feature would be particularly conducive for L2 development.

The IQOS categories were scored in real-time, i.e. filled out during the observed activity. If this was not possible, for example because the observer participated in the activity, the checklist was completed shortly after the observation. The teachers knew about the observations as the checklist was used openly but were not familiar with the research topic. Furthermore, both children and teachers were familiar with the observers, hence, the influence on the teachers' and the children's behaviour due to observations could be kept to a minimum.

The checklist results were obtained between February and April 2010 in nine ELIAS preschools (i.e. in all preschools except for the two comparison groups in England). The preschools were situated in Germany, Sweden and Belgium. In total, 21 teachers were observed. Every L2 teacher was rated within at least 15 activities, with the number of observed activities per teacher ranging from 15 to 36. In total, 372 observations were used for analysis. Interrater reliability was highly significant. The internal consistency of the IQOS ranged between .819 (for all 15 categories) to .761 (for all 5 supercategories), using Cronbach's Alpha. Hence, reliability was satisfactory for a newly designed tool.

1.3 Results and discussion

Considering the data obtained for all 21 L2 preschool teachers, their medians of the overall scores (henceforth IQOS scores) ranged from 30 to 51 (60 was the highest and 15 the lowest possible score that could be achieved). The data is not normally distributed which indicates that all teachers predominantly used means to render their input comprehensible and adhered to any other features which seem to be supportive for L2 development. The teachers' input differed quite dramatically in terms of individual category scores. Except for the category "absence of translation / absence of L1 use" (rated between "2" and "4"), all category scores alternate between 1 and 4 (for 336 observations), thus exhausting the full range of possible ratings.

The IQOS scores were also related to the amount of progress over a period of ±12 months concerning the children's receptive L2 grammar and lexical knowledge. Has qualitatively more beneficial input actually led to a higher amount of progress in L2 grammar and lexical knowledge, respectively?

First, the 148 children who completed the ELIAS Grammar Test at both test dates (T1 and T2) were subdivided into three IQOS-score groups, i.e. a group with a low, a mid and a high IQOS score. The results showed significant differences between the three

groups, i.e. the children of the high IQOS score group displayed a significantly greater increase of receptive L2 grammar knowledge than children of the mid or low IQOS score groups. The same holds true for children with mid IQOS scores, who developed significantly better (in terms of L2 grammar knowledge) than those children who had received the least beneficial input (IQOS score low). The results, therefore, suggest that a qualitatively more beneficial input amounts to more progress in receptive L2 grammar knowledge.

Second, the 200 children who completed the BPVS at T1 and T2 were subdivided into three IQOS-score groups, i.e. a group with a low, a mid and a high IQOS score. In contrast to the results of the ELIAS Grammar Test, the results for the BPVS II did not indicate any significant differences between the IQOS score groups. In other words, the BPVS scores did not improve as a function of increased input quality, as indexed by the IQOS.

How can these differences in the results be accounted for? For example, new vocabulary may also become accessible to learners with qualitatively less beneficial input. Whereas rich sentence structures are indispensable for the development of morpho-syntactic knowledge, receptive word learning and the development of the mental lexicon (in terms of breadth, see Quian 2002) may be less dependent on rich input. Word meanings may, thus, be accessible merely from a high frequency of certain lexical items in the input and deduced from the use of these items within a clear context. Therefore, naming objects or activities without embedding these forms in structurally rich sentences may be sufficient for understanding (and passively recalling) these labels. Furthermore, it is vitally important to distinguish between receptive and productive lexical knowledge. Whereas the *productive* use of lexical items often requires the speaker to connect the words with each other and impose syntactic structures on their utterances (see Gass 2003: 227), the perception of words may not necessarily include any morpho-syntactic knowledge of the given lexemes (i.e. vocabulary knowledge in depth, see Wesche & Paribakht 1996).

As for input intensity, the ELIAS Input Intensity Score was also related to the amount of progress over a period of ±12 months concerning the children's receptive L2 grammar and lexical knowledge. It was hypothesised that a higher Input Intensity Score would show in higher scores as obtained in the BPVS II and in the ELIAS Grammar Test. The children were subdivided into four groups which differed with respect to their Input Intensity Score (i.e. high, upper middle, lower middle, or low). As shown in the chapters on lexical and grammatical L2 development, the results did not show any significant differences between the four input intensity groups as to the amount of progress in L2 knowledge, i.e. the children who had more opportunities to access L2 input did not seem to develop better than those with fewer opportunities for L2 input. Apparently, it seems that input quality has a greater impact on the development of L2 receptive grammatical and lexical knowledge than the mere amount of L2 input per

week (input intensity). However, more studies are needed to examine the effects of input intensity in more detail.

In sum, the IQOS was developed as an observational tool for bilingual preschool settings which aimed at i) identifying and describing differences in the nature and quality of the L2 input offered to children in these settings and ii) further analysing the effects that these differences may have on the children's L2 development. As the results indicated, the IQOS is an appropriate tool to examine the nature of input provided in such a setting. Further studies are, however, needed to explore the feasibility of the IQOS in more detail.

2. Receptive L2 Lexical Knowledge in Bilingual Preschool Children

2.1 Introduction

It is not the speech sounds or the rules of grammar that require the most extensive learning, but the lexicon (Miller 1996: 5), yet in 1984, Meara stated "interlanguage theory has traditionally had very little to say about the lexical behaviour of non-native speakers" (Meara 1984: 225). One of the reasons why L2 lexical acquisition or L2 vocabulary learning[2] was not given much attention well into the 1980s may have been that it was not clear which research questions should be asked in connection with the L2 lexicon: Unlike L2 phonological or morpho-syntactic development, where similar developmental sequences were able to be identified for large populations of L2 learners (Ellis 2008, Wode 1993 for reviews), lexical development evades the notion of developmental stages and appears to be highly individual (Rohde 2005, Singleton 1999). In the past 25 years, however, not least due to new approaches such as minimalism (Radford 2004), the lexicon has no longer been viewed as a separate issue, as an isolated inventory of content and function words. Rather, it has been regarded as playing a dynamic part in morpho-syntax. It is the choice of lexical items that drives the syntax, determining what structures are and are not possible in a sentence (Cook & Newson 2007: 8). Due to this "new dynamic image," the lexicon has gained new ground, leading to a number of research questions in vocabulary learning (Ma 2009, Singleton 2009).

The task of the naturalistic L2 learner resembles the task which confronts the infant: Lexical units in the speech stream have to be isolated and connections have to be made between these units and the meanings they are intended to communicate. The difference is that the L2 learner can draw on her experience of making such connections

2 Both expressions are used synonymously in this chapter. There appears to be a tendency to refer to "vocabulary" in lieu of "words" or "lexicon" in L2 contexts as "vocabulary" often refers to specific word lists used in classroom scenarios (Hatch & Brown 1995: 1, Lipka 1990). However, I do not see a substantial difference between "lexicon" and "vocabulary," especially in view of the fact that the term "L2 mental lexicon" (Singleton 1999) is well established.

between lexical forms and meanings in her L1 (Singleton 1999: 48). The involved languages in the ELIAS study (i.e. French, German and Swedish) are typologically and genealogically related to the target L2 English to varying degrees, therefore, a considerable amount of cultural overlap can be assumed between them, so that a large number of concepts that has been lexicalised in the learners' L1 can be expected to be at least similar in the L2 and to facilitate the formation of new concepts (ibid.).

2.2 Method

The BPVS II (Dunn et al. 1997) is a standardised test instrument to determine the receptive vocabulary of 3- to 15-year old L1 speakers of English as well as the vocabulary of children learning English as an additional language (EAL) in Great Britain. It consists of 14 sets with 12 cards, every card contains 4 pictured items, one of which is asked for when the BPVS II is administered. Thus, maximally, 168 words were tested. Each child is tested individually by two experimenters in a quiet, familiar preschool room. Testing usually does not exceed 10 minutes. The examiner asks the child to point to the appropriate picture when giving the respective prompt (e.g. "Show me *baby*"), the second examiner records the responses. Testing starts with the initial set, the *basal set*, for every child, and is discontinued after the *ceiling set* in which 8 or more incorrect answers have been provided.

In 2009 and 2010, a total of 200 children, 96 girls and 104 boys (48% girls and 52% boys) from seven bilingual preschools in Germany, one in Sweden and one in Belgium were tested on the BPVS II twice at an interval of 5 to 15 months. The children's age range was between 34 and 88 months at T1 (test 1) (mean: 56.4 months, SD = 13.1 months) and they had been exposed to English between 1 and 50 months at the time of T1 (mean: 14.2 months, SD = 9.7 months). At the time of T2, the children were between 42 and 98 months old (mean: 67.3 months, SD = 13.3 months) and their contact time to English was between 10 and 61 months (mean: 25.1 months, SD = 9.3 months). In addition, twenty children from a monolingual English background in a preschool in Hertfordshire, England (HS) also took the BPVS II twice. At the time of test 1, the monolingual English children were between 3-5 years old (mean: 52.9 months).

2.3 Results and discussion

The purpose of this study was to examine the development of L2 receptive vocabulary in children with different L1s (i.e. German, French and Swedish) who were exposed to the L2 English in a preschool context. The results suggest that children learn an L2 as early as preschool and steadily improve their receptive vocabulary. The study revealed significant differences for the children's L2 vocabulary at two test times with respect to L2 contact duration (in months) and L2 intensity (which took the opening hours of the preschools and the L2 preschool teacher-child ratio into account). The L2 contact and

the L2 intensity results share one characteristic: Both measures reveal that contact and intensity only make a difference in receptive vocabulary knowledge after an extended period of time. Within the first year of L2 contact, children appear to build up a considerable receptive lexicon but then only gradually add to their vocabulary so that a significant improvement can only be stated in the third and highest contact group (25-72 months) in the programme. It is obvious that the contact time in terms of the total time a child has spent in a programme is not particularly revelatory as the actual exposure to the L2 may be rather scant, if e.g. English is only heard once or twice a week. The proposed ELIAS Input Intensity Score (see Weitz et al., volume I) avoids the shortcomings of the "L2 contact measure" by determining the potential time of exposure for the children of the different European preschools. A third measure complementing L2 contact and L2 intensity is the L2 input quality (see ibid.).

In line with the results of the other studies in this volume, girls and boys did not perform significantly differently in their acquisition of a receptive lexicon. It is true that the girls may have had an advantage at test time 1 but, more importantly, at test time 2 the boys' and the girls' results did not significantly differ.

Furthermore, the comparison between children with and without a migration background did not produce any significant differences either. This is a very encouraging result as it is often informally reported that children with a migration background are disadvantaged in a preschool setting in which yet another "new" language is introduced. It is perhaps even more surprising that even the children who do not speak the ambient language at home do not lag behind in L2 acquisition. It is these children who are reportedly likelier to be disadvantaged in learning contexts as neither their L1 (a minority language) nor their L2 (the ambient majority language) may be age adequate (Apeltauer 2004).

This study of the development of children's L2 receptive vocabulary knowledge within the ELIAS project is necessarily limited in scope. That is also why the contribution of this study to the general issues in lexical/vocabulary acquisition has to be rather modest.

Lexical principles: The *whole object assumption* is not explicitly tested with the BPVS II, however, both L1 and L2 children tacitly assume that the tested labels refer to the entire objects in the pictures rather than to parts or shapes of those objects. The *taxonomic assumption* is not tested either but the BPVS II contains a large number of basic level terms (*cat*, *tractor*, *gate*, *cow*, *tortoise*, *penguin*) reflecting that children in both L1 and L2 acquisition first predominantly acquire and extend new labels on the basic level (Rohde 2005: 153, Witt 1990).

Vocabulary breadth vs. vocabulary depth: When compared to *the vocabulary knowledge scale* (Wesche & Paribakht 1996), step 3 in the VKS ("I have seen this word before…") corresponds most closely to the task of selecting one out of four pictures upon hearing a particular word in the BPVS. Thus, the BPVS can only test the breadth of learners' vocabulary as only core meanings have to be identified when mapping an L2 label to a picture and no deeper semantic knowledge of a word is tested.

The L2 mental lexicon: Initially, L2 word associations are more strongly based on formal (phonological and/or morphological) similarities between L1 and L2 words than on semantic relations that hold between words (e.g. hyperonymy, synonymy, antonymy). While it is true that the BPVS II is not intended to elicit information on learners' mental lexicons, the children's responses may yet allow the conclusion that, left to their own devices, the children use phonological similarity plus the semantic information in the picture in order to identify object words. Upon hearing English words such as *cow* or *dancing* and seeing, amongst other possible choices, pictures of the animal and the activity, e.g. German L2 learners of English tend to notice the similarity between German *Kuh* and English *cow* (the initial plosive is similar and both words have a CV structure) or the phonological and morphological similarity between German *tanzen* and English *dancing*. These formal similarities prompt them to first establish (receptive) lexical entries for the two L2 words *cow* and *dancing*, following in fact a principle or an assumption akin to the *taxonomic assumption* which could be referred to as the "phonological similarity assumption" in order to establish a mental lexicon: Similar sounding words in two languages refer to the same object/activity.

Growth rates: Despite the conspicuous qualitative differences between the programmes tested in the ELIAS study, it has been shown that there is in fact a progress in the children's development of receptive vocabulary over time. This result is in line with the scant evidence from naturalistic L2 acquisition which indicates that at the onset of L2 acquisition there is veritable vocabulary surge, whereas growth rates take a dip as early as six months into the acquisition process (Rohde 2005, Wode et al. 1992). An early peak of growth rates and a henceforth slow acquisition of vocabulary may be due to an early satisfaction of children's communicative needs in the L2 and may go along with possible fossilisation process.

More detailed studies in the preschools are clearly required to bear out such a speculation. The problem, however, is that all the studies within the ELIAS project have shown that it is very difficult to control for a number variables related to both the individual children and the respective preschool programmes.

3. Receptive L2 Grammar Knowledge Development in Bilingual Preschools

3.1 Introduction

The present chapter focuses on bilingual preschools in Germany, Sweden and Belgium, which offer partial immersion programmes in English. The staff members are preschool teachers from the respective countries, but usually one preschool teacher is a native speaker of English or has near-native-like competences. The children from these bilingual preschools investigated in this study are all non-native speakers of English. The bilingual preschool teachers abide by the "one person-one language" principle (e.g. Ronjat 1913). The foreign language is used according to immersion principles,

i.e., English is not taught as a subject but, rather, used as a medium for classroom communication and for teaching. In the initial stages of immersion education, when the children have no or only a very limited knowledge of their L2, the preschool teachers contextualise their use of English as much as possible as the children must rely on non-linguistic contextual cues to comprehend the L2 input directed at them. As the children's ambient language outside the preschool is not English (but German, Swedish or French), their L2 acquisition situation is not comparable to being exposed to English in a country where it is spoken as the dominant language or the first language (L1) for most of the population (see e.g. Rohde 2005).

Learning a foreign language entails developing many types of knowledge and mastering many different skills, e.g. phonetic, phonological, lexical, morphological, syntactic, discourse-pragmatic as well as sociolinguistic skills. The present chapter focuses on children's development of grammatical skills. Although the learner's primary concern in the earliest stages of L2 acquisition may be on the acquisition of the lexicon (Hatch 1983; Singleton 1999), mastering the grammatical principles of the L2 is also crucial for efficient communication in the language (Klein & Perdue 1992).

Furthermore, the present chapter investigates children's development of receptive (rather than productive) grammatical knowledge of the L2, for both practical and theoretical reasons. It is generally assumed that during the very first stages of L2 acquisition under investigation here, learners' productive skills lag behind their receptive skills. In particular, child L2 learners have been shown to go first through a 'silent stage' during which they are not yet able to produce many utterances in their L2 although they may well already have acquired some 'tacit' knowledge of the language (Ellis, 2008). This is also the case for the children in the bilingual preschools in the ELIAS project. These children typically produce very few English words and sentences (see e.g. Wode 2001, Rohde 2005). It was therefore deemed not feasible to analyse production L2 data because these are still scarce. Instead, the focus of the present study is on preschoolers' grammatical comprehension abilities with respect to their L2 English. The ELIAS Grammar Test, which has been used in this study, is a picture pointing task. This testing format has been successfully used with children between three and seven years of age, often in the form of standardised measurement instruments, to assess grammatical comprehension. The focus of this study is on the performance in the ELIAS Grammar Test by bilingual preschool children's as a function of L2 contact duration, L2 input intensity, sex and their home language background.

3.2 Method

In 2009 and 2010, a total of 148 children (51% girls and 49% boys) from seven bilingual preschools in Germany, one in Sweden and one in Belgium took the ELIAS grammar comprehension test twice at an interval of 5 to 12 months. The children's age range was between 3 and 6 years (mean: 54.4 months) and they had been exposed to

English between 1-42 months at the time of Test 1 (mean: 14.2 months). In addition, twenty children from a monolingual English background in a preschool in Hertfordshire, England (HS) also took the ELIAS Receptive Grammar Test twice. These monolingual English children served as a benchmark against which the performance of the bilingual preschool children could be compared. The benchmark children were of approximately the same age as the bilingual preschoolers. At the time of test 1, the monolingual English children were between 3-5 years old (mean: 52.9 months).

The children in the preschools were tested individually in a quiet room they were familiar with. First, the child looked at three pictures. The child then listened to a sentence that corresponded to one of the pictures. Responses were made by pointing to the picture which the child thought to be appropriate to the sentence. Before testing, the children were given two training items consisting of three pictures of different objects and an appropriate single word utterance to ensure they knew how to make the responses. The three pictures in each set differed in the following way. Two of these pictures contrasted only in the target grammatical dimension (e.g. absence/presence of the plural inflectional marker -s: cat/cats). The third picture was a distractor (see Rohde 2005). The children were tested on nine grammatical phenomena (see Table below). In total, there were 54 test items (9 grammatical phenomena x 3 picture pairs x 2 test presentations per picture set). The session did not take longer than ten minutes.

Abbreviation	**Phenomenon**	**Example sentence**
AGRc	Subject-verb agreement: copula verbs Singular/plural	*the deer is white* *the deer are white*
AGRv	Subject-verb agreement: full verbs Singular/plural	*the sheep eats* *the sheep eat*
GEN	Possessive case: Absent/present	*the girl is kissing the boy* *the girl is kissing the boy's dog*
NEG	Sentences: Affirmative/negative	*the boy is running* *the boy is not running*
PLU	Inflectional morpheme: +/- plural -s	*cat* *cats*
POSS	Possessive pronoun singular: Masculine/feminine	*his cat* *her cat*
PROog	Personal pronoun singular (object) Masculine/feminine	*the girl is kissing him* *the girl is kissing her*
PROsg	Personal pronoun singular (subject) Masculine/feminine	*he is singing* *she is singing*
SVO	Word order	*the boy is touching the girl* *the girl is touching the boy*

Tab. 1: Nine grammatical phenomena were tested in the ELIAS Grammar Test. The phenomena are listed alphabetically. Column 1 shows the abbreviations, column 2 explains each phenomenon and column 3 provides example sentences ("prompts").

3.3 Results and discussion

The purpose of this study was to examine the development of grammatical comprehension abilities in children with different L1s (i.e. French, German and Swedish) who were exposed to the L2 English in a preschool context. The results clearly demonstrate that it is feasible to learn a second language as early as preschool, using immersion methods.

First, increased L2 contact duration (as measured in months) positively affected the results of the ELIAS Grammar Test. This result clearly demonstrates the feasibility of a bilingual programme in preschools which offer English as an L2 in an immersion context (see Wode 2001, Rohde 2005, Rohde & Tiefenthal 2002, Burmeister & Steinlen 2008, Steinlen 2008, Steinlen & Rogotzki 2009).

Second, the results clearly showed strong effects of L2 input intensity on the results of the ELIAS Grammar Test. In agreement with findings from the school immersion context (e.g. Curtain 2000, Wesche 2001), L2 input intensity is apparently also an important factor for L2 learning in a preschool context, which, in addition to L2 contact duration, may account for differences in the children's performance in the ELIAS Grammar Test.

Third, the children's sex did not influence the results because boys and girls performed equally well in the ELIAS Grammar Test. This finding agrees with results from other studies on lexical acquisition (comprehension and production, e.g. Natorp 1975, Rohde & Tiefenthal 2002) and small-scale studies on L2 grammatical comprehension (Steinlen 2008, Steinlen & Rogotzki 2009) in a bilingual preschool context. We suggest that under optimal conditions, the variable sex does not play a role in foreign language acquisition settings taking place in preschools.

Fourth, no differences were found for children with a non-migrant and children with a migrant background with respect to their performance in the ELIAS Grammar Test. The results showed that L2 receptive grammar of children with a migration background developed the same way as L2 receptive grammar of their non-migrant peers did, i.e. their scores of the ELIAS Grammar Test differed as a function of L2 contact. This finding is surprising, given that migrant children (especially minority language children) in German primary schools seemed to be less successful in foreign language learning than their monolingual peers (see e.g. Elsner 2007). In order to account for these results, we suggest that the learning situation in a preschool context is particularly beneficial for migrant children because the L2 is not taught but used as a medium of communication and can therefore be acquired from the way it is used.

Fifth, the children did not identify the nine grammatical phenomena equally well. For example, in both tests, the grammatical phenomena SVO and NEG were better identified than AGR or PRO. Similar results were obtained in a study on L2 grammatical comprehension of Turkish and Cantonese EAL children in London (Howell et al. 2003) and in tests administered to monolingual English children (Fraser et al. 1963,

Lowell & Dixon 1967, Nurss & Day 1973, Au-Yeung et al. 2000, Howell et al. 2003). Apparently, some grammatical phenomena are easier to master than others, independent of the language acquisition setting. Several possible explanations have been suggested, i.e. underrepresentations of grammatical phenomena in the L2 input (as in the case of 3rd person pronouns where often proper names were used instead), perceptual salience and frequency (as in the case of the negator), or transfer from the L1 to the L2. In terms of a theoretical framework, Processability Theory (Pienemann 1998) may be used to account for the variability within the data (especially for the morpho-syntactic phenomena) although this model has not been used with comprehension data yet.

Finally, many aspects have not been dealt with in this study and are left for further research. For example, a large amount of individual variation was noted in this study (as shown in the standard deviations, for example). Such a finding has been reported in many studies (e.g. Paradis 2005, Tabors & Snow 1994). Among the many factors to be considered, personality traits may serve as one explanation. It is imperative to consider the child's biography, her character and her relationship to native and non-native speakers in the preschool context in order to adequately account for these individual variations (e.g. Burmeister & Steinlen 2008, Wong Fillmore 1979).

Furthermore, this study did not examine how or whether the children's L1 (i.e. French, German and Swedish) affected the results of the ELIAS Grammar Test. It may be expected that typological differences or similarities between grammatical phenomena may facilitate or hinder the development of L2 grammar. For example, from Canada, Bild and Swain (1989) reported that non-anglophone pupils whose L1 is a Romance language acquired French faster than children whose L1 is a non-Romance language.

Last, the results of the grammar test need to be related to the parents' questionnaires, in order to show whether, for example, the parents' socio-economic background, their attitude to English and L1 background may affect their children's grammatical comprehension development. In the literature, the parents' background and their involvement in their children's education have shown to be an important variable in predicting their children's academic achievements in a school context (e.g. Edelenbos et al. 2006, Lopez 2005), although such effects have not been studied yet for foreign language acquisition in a preschool context.

In sum, the ELIAS Grammar Test is a useful tool which, for the first time, assessed the comprehension of English grammar by bilingual preschoolers in three European countries. Undeniably, the children showed great success in foreign language learning in such a context, as compared to their monolingual peers in England. Moreover, it could be shown that such an immersion setting is also advantageous for migrant children whose L1 may not correspond to the official language of the host country. Finally, the study showed similarities between L1 and L2 acquisition, especially with respect to the comprehension of different grammatical phenomena, whose ease or difficulty of comprehension may depend on processing strategies that the learner has available at a

certain point in time. It seems that the learning language abilities activated in preschool are the same as those activated in non-tutored second and in first language acquisition (see also Wode 2001).

4. Lexical and Grammatical Comprehension in Monolingual and Bilingual Children

4.1 Introduction

This section focuses on the results of lexical and grammatical comprehension tests in preschool and school-age monolingual and bilingual children living in the UK. The tests used are the same as those described above, namely the British Picture Vocabulary Scale II (BPVS II, Dunn et al. 1997) and the ELIAS Grammar Test which was developed for ELIAS Project.

The ELIAS project aimed to capture the development of children growing up in a German speaking environment learning English at preschool in an immersion setting. Including a group of monolingual children in the two receptive tasks served the purpose that the results of the preschool children can be compared with monolingual comparison groups, which is particularly important for the ELIAS Grammar Test, where no information on monolingual performance is available. In addition, a group of children with a dominant German background living in the UK will also be considered in comparison to the monolingual English subjects. These children have been exposed to English for longer but also attend a preschool where both German and English are spoken by native speakers, hence the setting is similar to that of the immersion preschools in Germany.

The tasks used as part of the ELIAS project are receptive language tasks, hence they evaluate children's receptive lexical and grammatical skills. This is because the German children's language level is not yet advanced enough to include tests of their productive skills. The aim of the chapter is to provide a background against which the German children acquiring English as a second language can be compared.

In order to assess children's lexical and grammatical development, the development of monolingual as well as bilingual children needs to be taken into account. In general, comprehension develops earlier than production (Benedict 1979, Goldfield & Reznick 1990) and word learning is guided by different constraints (Markman et al. 2003). Bilingual children learn words in both languages and there has been some discussion as to whether they accept cross-language synonyms (Pearson, Fernández & Oller, 1995, Quay, 1995). Evidence suggests that bilingual children use translation equivalents from early on (Au & Glusman 1990, Köppe 1997, Schelletter 2002) and a number of studies of bilingual language development have argued in favour of the bilingual child separating the languages from the start (de Houwer 1990, 1995, Meisel 1989, Paradis & Genesee 1996, Sinka & Schelletter 1998).

Studies concerned with bilingual children's vocabulary skills have found that while bilingual toddlers are comparable to their peers in terms of their lexical development (Pearson et al. 1993), bilingual children perform below the level of monolingual children on standardised vocabulary tests of one of the languages (Hoff & Elledge 2005, Pearson & Fernández 1994). The extent of bilingual children's word knowledge depends on the length and amount of exposure of each of the languages.

With regard to receptive grammatical skills, MacWhinney (2005) has described sentence processing in terms of 'cues', language forms that are evaluated in order to work out the structure and meaning of the sentence. For example, different cues can be used to work out which noun is the agent in a sentence. In languages with a consistent word order, the order of nouns is a clue. In languages where nouns have case marking, this can be used as a cue instead. Different cues in the sentences can be in competition with each other (The Competition Model, Mac Whinney & Bates 1989). Children initially attend to the cue they perceive as the strongest one and acquire the adult pattern gradually. For example, young children tend to make a choice of agent based on animacy rather than word order or case marking but their processing changes as they get older.

MacWhinney & Bates also make a distinction between 'local' and 'global' cues. Local cues are forms such as plural marking which can be evaluated locally. Agreement, on the other hand, is a global cue which requires processing of the noun as well as the verb in order to process the sentence correctly. Agreement is therefore a later acquired cue for sentence interpretation.

It is hypothesised that the bilingual children will score lower than the monolinguals in receptive vocabulary, particularly as the bilinguals had more exposure in their other language German compared to English. We also expect the two groups to differ in the way they make use of different grammatical information to interpret sentences as the bilingual children have processed sentences in German as well as English and the two languages differ in terms of the strength of different sentence processing cues (MacWhinney 2005). We expect both groups to improve in their lexical and grammatical skills when tested the second time round.

4.2 Method

Between March 2009 and May 2010, 60 children between the ages of 3 and 5 years were tested. Thirty children attended institutions in Hertfordshire (UK) that function monolingually in English. The remaining children attended a bilingual German-English nursery that is part of the German school in London. In the monolingual group there were 10 children at each of the age level 3, 4 and 5. There were 5 girls and 5 boys at each age level. The children were recruited from two preschools and an infant school. All of them were English monolinguals. At the first set of tests the average age for the group is 53 months.

In the bilingual group, there were seven 3-year-olds (3 girls and 4 boys), twelve 4-year-olds (8 girls and 4 boys) and eleven 5-year-olds (3 girls and 8 boys). All children attended preschool groups where a native English and German speaker were present. The background of the children differs between those where German is the language spoken by the mother or both parents (German dominant) and others where English is the home language English dominant. Overall, there were 22 children who were German dominant and 8 children who were English dominant. The overall average age of the bilingual group is 56 months. The focus of the analysis in this chapter is between monolingual English and German dominant bilingual children, for this reason the English dominant bilingual children are not considered.

All children were tested using the BPVS II (Dunn et al. 1997) and the ELIAS Grammar Test. The range of grammatical phenomena tested is given in table 1 below. A second set of tests was delivered after the first set; the monolingual children were re-tested after about 7 months, and a subset of five German dominant bilingual children (4 girls and 1 boy) were re-tested after up to 12 months. At this second set of tests the mean age of the monolingual group was 59 months and 66 months in the bilingual group at the time of test 2.

Abbreviation	**Phenomenon**	**Example sentence**
AGRc	Subject-verb agreement: copula verbs; singular/plural	*The deer is white* *The deer are white*
AGRv	Subject-verb agreement: full verbs; singular/plural	*The sheep eats* *The sheep eat*
GEN	Possessive case: absent/present	*The girl is kissing the boy* *The girl is kissing the boy's dog*
NEG	Sentences: affirmative/negative	*The boy is running* *The boy is not running*
PLU	Inflectional morpheme: +/- plural -s	*Cat* *Cats*
POSS	Possessive pronoun singular: Masculine/feminine	*His cat* *Her cat*
PROog	Personal pronoun singular (object): masculine/feminine	*The girl is kissing him* *The girl is kissing her*
PROsg	Personal pronoun singular (subject): masculine/feminine	*He is singing* *She is singing*
SVO	Word order	*The boy is touching the girl* *The girl is touching the boy*

Tab. 2: Structures tested in the grammar task

As can be seen in table 1, nine grammatical phenomena were tested in the grammar comprehension task. The phenomena are listed alphabetically. Column 1 shows the abbreviations; column 2 explains each phenomena and column 3 provides example sentences (prompts).

4.3 Results and Discussion

For the first testing of the BPVS II the results show that the monolingual children scored above their L1 age equivalent by about 8.7 months on average. This difference is higher in the 3-year-olds (14.7 months) and lower in the 4-year-olds (4.1 months). For the 5-year-olds, the difference is 7.3. For the bilingual children, there was a steady developmental increase in mean raw score by age. The difference between the age groups as well as between monolinguals and bilinguals was significant. This finding is in line with previous studies (Pearson & Fernández 1994, Hoff & Elledge 2005) that have found a similar difference between monolingual and bilingual children. A comparison between the results for boys and girls on the other hand showed no significant difference.

The scores of the bilingual children were also compared to the BPVS II norms for children with English as an additional language (EAL norms). Their EAL equivalents were 13.5 months ahead of the EAL norms. Across the age groups the difference is 11.4 months for the 3-year-olds, 6 months for the 4-year-olds and 10.5 months for the 5-year-olds. These results show that the bilingual children are ahead of children learning English as an additional language.

For the second round of testing, the average raw score for both monolingual and bilingual speakers had increased. As would be expected, the children's scores improve significantly, indicating that this period sees a considerable growth in vocabulary in all three age groups and in both, monolingual and bilingual children. During this period, it is proposed that the older children's abstract vocabulary develops, allowing them to progress to stages of the test which test increasingly abstract concepts. In both rounds of the test, most of the children achieved a score higher than is expected for their age group. In the second round, it became clear that their achievements had become significantly more advanced.

Given that the bilingual children scored lower than their monolingual counterparts in the first round, it is conceivable from the second round of testing that this group will catch up with the monolinguals eventually, depending on their further amount of exposure. It will be interesting to examine the lexical productive skills of both groups to see whether the difference in lexical skills is even more evident, as would be expected.

Regarding grammatical skills, there was no overall significant difference between monolingual and bilingual children in the ELIAS Grammar Test, though the monolinguals achieved higher scores than the bilinguals. There were differences in the individual phenomena tested though, such that the bilinguals scored lower on comprehension of pronouns in particular. Both groups were quite low on agreement (the bilinguals scored slightly above the monolinguals in this category) which confirms MacWhinney's (2005) assertion that global cues such as agreement are acquired later than other cues. Both groups show a significant increase in their receptive grammar skills between the first and the second test. This shows that the ELIAS Grammar Test

is a useful tool which captures the development of grammar skills in this age group for both, monolingual and bilingual children. Further work needs to relate these findings to children's productive grammar skills in order to determine further the relationship between comprehension and production.

The monolingual English children were included in the receptive tasks carried out as part of the ELIAS project in order to obtain a measure of comparison for the German preschool L2 learners of English. The fact that differences were found in the results between different age groups ad well as the monolinguals and a group of preschool German-English bilingual children living in England confirms that the tests are able to capture developmental trends as well as differences between monolinguals, bilinguals and second language learners. Further analyses, particularly with regard to the different categories of the grammar task, would need to show more specifically in what respects the non-native speakers show slower development and in what areas prior knowledge of another language facilitates acquisition.

5. SETK 3-5: A developmental language test on German for 3-to-5-year-old children

5.1 Introduction

Since the 1960s, immersion programmes have been in operation in the French speaking areas of Canada, in which English children are sent to schools where all or a majority of lessons are taught in French (e.g. Lambert & Tucker 1972). Although these programmes have been shown to be very successful in terms of academic and L2 achievement (see e.g. Wesche 2002 for an overview), a frequently asked question by parents is the following: "What about English language skills? Will they suffer if my child attends a French immersion class?" (Canadian Parents for French 2006). A similar question is often asked by German parents of those children who attend a bilingual preschool: "Will the German language skills of my child suffer because the native English teachers in our preschool exclusively use English?"

For an immersion school setting, this question has already been answered: Many studies have shown that the children's L1 does not suffer, at least with respect to their L1 reading and writing skills or with respect to their cognitive development (see e.g. Genesee 1987; Turnbull et al. 2001, Zaunbauer et al. 2005, Zaunbauer & Möller 2006, 2007, 2010). However, such an assessment has not yet been conducted in bilingual preschools. The aim of this study is, therefore, to examine whether the children's L1 German is affected by the use of English in bilingual preschools in Germany.

The SETK 3-5 (Grimm et al. 2001) was used in the ELIAS project. It was chosen over the other tests because it has a standardised measure of language abilities that is appropriate for German children from 3 to 5 years of age, that is, it includes the age range of German preschoolers from 3.00 until 5.11 years. The SETK 3-5 has originally

been designed to identify and diagnose children at risk for language impairment as early as possible. As explained in more detail below, the SETK 3-5 relates language production and comprehension to phonological working memory. According to Fried (2004), the SETK 3-5 currently is the most appropriate tool for analysing children's L1 German skills because it is less time consuming than other tests and it can also be administered by persons other than language test experts. In the ELIAS project, however, the SETK 3-5 was administered by speech therapists.

Apart from age-appropriate development, two additional aspects of L1 development have been explored in the study, namely how it may be affected by sex and home language background. As regards sex, we examine whether the L1 German skills of preschool boys and girls differ and if so, to what extent. A well-known stereotype purports that girls are better than boys in terms of acquiring their L1. For instance, Bornstein et al. (2004) found that girls older than age five consistently outperformed boys on multiple specific and general measures of language achievement. For German, Blossfeld (2009) reported that the German skills of preschool girls were better developed than those of their male peers. However, the empirical evidence for the supposed advantage for girls is not consistent. A meta-analysis of several hundred studies examining girls and boys from ages 4-18 found that alleged advantages of girls were either slight or non-existing (Hyde & Linn 1988). For the preschool context, Grimm et al. (2001) reported that the results of the norm group of the SETK 3-5 indicated no sex-related differences in the acquisition of the L1 German (see also Kretschmann 2004). In her detailed review on the effects of sex on language development, Klann-Delius (2005) concluded that empirical studies did not conclusively support the notion that the L1 acquisition process proceeds faster or better in girls than in boys. In this study, the gender issue is further investigated, in part because this question has not been examined in an acquisition setting where preschoolers not only further develop their L1 skills, but also simultaneously acquire an L2 (in this case English).

Second, this chapter will also examine whether the children's home language background has an effect on their German skills as assessed by the SETK 3-5. To this end this study will assess whether the acquisition of German by migrant children is affected by the fact that these children attend a bilingual preschool and are exposed to yet another language (English) than the ambient language of the host community (German) and their home language (e.g. Turkish, Arabic, Russian). It may be hypothesized that children whose home language or L1 is not German will show deficits in the acquisition of German because, due to their exposure to English, these migrant children may not receive enough German input.

In summary, the focus of this study is on the German skills of children who attend a bilingual preschool. To our knowledge, it is the first study that examines whether the L1 skills of preschoolers develop in an age-appropriate way although their ambient language in preschool is not only German but also English. In addition, this study in-

vestigates to what extent the German skills of preschoolers in a German-English bilingual programme are affected by the variables migrant background and sex.

5.2 Method

The SETK 3-5 (Grimm et al. 2001) is a standardised and norm-referenced instrument which examines the language proficiency of German-speaking preschool children. This battery has been standardised on a group of 495 German-speaking children between 3;0 and 5;11 years of age and has been found to have high validity and reliability (with Cronbach's Alpha between .62 and .89). The test consists of two different test versions depending on the age of the children (a version for 3-year-olds and a version for 4- and 5-year-olds). In particular, it assesses the domains of linguistic understanding, production, and memory. The SETK 3-5 includes different subtests, i.e. linguistic understanding is measured by the subtest *understanding of sentences*, for linguistic production there is the subtest *formation of morphological rules* and linguistic memory is measured by *phonological working memory for non-words*. Testing took place in a quiet room at the child's preschool and lasted between 15 and 30 minutes per child.

In 2009 and 2010, 83 children (45 girls and 38 boys) from seven bilingual preschools in Germany completed the SETK 3-5 twice at an interval of between six to twelve months. The age range of the children was between 3-5 years at the time of test 1 (mean = 52.3 months, SD = 6.0 months). At the time of Test 2, the children were between 4-5 years old (mean: 59.7 months, SD = 5.9 months). Of the 83 children, 12 children had a migrant background. Their home languages were Arabic, Cantonese, Croatian, Estonian, Hebrew, Russian, or Turkish.

5.3 Results and discussion

The purpose of this study was to determine whether the L1 German of children, who were exposed to the L2 English in a preschool context, develops age-appropriately. Therefore, the SETK 3-5 (Grimm et al. 2001), a standardised and norm-referenced German language test, was administered twice during the duration of the ELIAS project.

First, the results of the SETK 3-5 for 71 German monolingual children showed an age-appropriate development for German which was not negatively affected by the use of L2 English in the bilingual preschools. Similar findings were reported from the primary and secondary school context, at least with respect to the children's development in L1 reading and writing (see e.g. Genesee 1987; Turnbull et al. 2001 for Canada, and Zaunbauer et al. 2005, Zaunbauer & Möller 2006, 2007 for Germany).

Second, the results of this study also showed that the children's sex did not influence their performance on the SETK 3-5 test; boys and girls in the bilingual preschools performed equally well. This finding agrees with several other studies which found no

significant differences between boys and girls in L1 acquisition, at least with respect to 'no risk' children (e.g. Tomblin 1997, Grimm et al. 2001).

Third, this study also examined whether the children's migration and/or home language background had an effect on their German skills. Based on a literature review, it was hypothesised that children with a migrant background would obtain lower scores in the SETK 3-5 than monolingual German children because their L1 skills were less developed than those of their monolingual peers (e.g. Penner 2005, Kaltenbacher & Klages 2007, Knapp 2006, Schöler et al. 2004). Additionally, it was speculated that the reduced amount of German input (resulting from the fact that the preschool staff also consisted of teachers who only spoke English) would result in lower SETK scores by children with a migrant background because the amount of input has been shown to play an important role for the acquisition of German in a German preschool (e.g. Becker 2010). Surprisingly, the results of this study showed that this was not the case. The progress rates of children with a migrant background did not differ significantly from the progress rate of children without migration background and both groups improved significantly over time. However, note that these results are only preliminary as only the data of twelve migrant children could be used. Furthermore, the twelve migrant children investigated here came from five different preschools in Germany. It cannot be ruled out that in these particular preschools, all variables which contribute to successful foreign language learning were available, e.g. sufficient German input (Chilla et al. 2010, Tracy 2000), parental support (e.g. Apeltauer 2004, 2007, Biedinger 2009, Kuyumcu 2006), long preschool attendance (see also Becker 2010), maintaining and fostering the children's L1 (e.g. Apeltauer 2004, 2007), and preschool staff that is adequately trained in order to provide appropriate language support. Finally, it is possible that the migrant children's German skills were positively affected by the strongly contextualised input children in bilingual preschools are typically exposed to (e.g. Chilla et al. 2010, Wesche 2002). One can speculate that just like the strongly contextualised English input appears to have helped the children in the bilingual preschools in Germany to show measurable progress in their comprehension of English, strongly contextualised German input may have helped especially the migrant children to show measurable progress in German.

In conclusion, the objective of this study was to assess the children's knowledge of German, using a standardised and normalised test battery, i.e. the SETK 3-5 (Grimm et al. 2001). This language test was administered to 83 children in seven German bilingual preschools, which all offered English as a foreign language. Although parents of children in such bilingual preschools often worry about the development of their children's L1, the results of the SETK 3-5 indicated that the children's L1 German was not negatively affected by the use of English and developed, indeed, age-appropriately. Thus, foreign language acquisition in a preschool context may well be an asset with respect to the development of the children's L1 German. It is, therefore, feasible to introduce an L2 in a preschool context, without being detrimental for the children's L1.

6. Intercultural Encounters in Bilingual Preschools

6.1 Introduction

The ongoing process of European unification requires an intensified cooperation of the member states, and the phenomenon generally labelled "globalisation" has led to an increased exchange of products and workers. Moreover, it appears that the issues of migration and the problems of refugees resulting from wars, deteriorating living conditions in some areas of the world, and the problems of the planet's ecology can only be addressed in a context of international cooperation. All of these developments make it either necessary or desirable for a steadily growing number of people to be able to interact and communicate in societies that become increasingly multicultural. Based on the assumption that lack of intercultural knowledge and appropriate strategies for intercultural interaction will create problems and hamper communication processes both in a personal realm and in an institutional framework, intercultural competence has become a central concern in the modern world.

Convinced that fruitful and successful communication across cultural boundaries requires specific forms of knowledge and a repertoire of appropriate strategies, scholars from various academic disciplines have studied the determinants and the processes that govern intercultural interaction. Their research efforts have supplied educational institutions throughout the world with the knowledge necessary for the development and implementation of training programmes to create or enhance the skills of their citizens. It seems only natural to expand the scope of such activities into the early learning phases and sensitise young children to the specifics of intercultural encounters.

6.2 Children, intercultural competence and other languages

As a matter of fact, preschools and other child care centres, networks, or programmes may be particularly useful in achieving positive effects in the context of intercultural activities since they are a nexus of rich and complex social and linguistic interactions in the communities they serve (Burns 2009: 27f.). If such institutions feature specific educational frameworks, such as language immersion programmes, the learning effects may enhance each other's effectiveness. With their exposure to a second (foreign) language (L2), children do not only acquire a skill that may turn out to be useful in their future careers. Learning another language will also enable them to access and relate to a cultural reality that differs from their habitual world view. In engaging in a new language, "speakers are enacting sociocultural phenomena; in acquiring language, children acquire culture" (Buttjes & Byram 1991: 18). In a setting in which children are embedded in a multilingual environment where native speakers represent their cultures by way of the language(s) they speak, children will find themselves exposed to a broader variety of behavioural models and cultural stimuli than in a monolingual context.

In a bilingual preschool working under the premise of an immersion programme (see Wode, this volume), intercultural contact would above all refer to the interaction between

individuals whose cultural difference is manifested by the fact that they speak different languages. Since it is a common assumption that different languages generally imply different national backgrounds with their distinctive national cultures, the sense of cultural difference would be based on national, ethnic or racial characteristics. While there are doubtless other features that could be used to distinguish between people, these categories are exceedingly powerful and act, in the words of psychologist Gordon Allport, as "labels of primary potency" that overshadow "all finer discriminations that we might otherwise perceive" (1979: 179). Seen from this perspective, members of a given nation share a common set of specific rules, rituals, symbols, and myths. These specific features constitute the basis for a world view that may contrast with that of other national groups and thus may become a stumbling block for communication across cultural boundaries.

Communicative obstacles based on this type of cultural difference have been noticed on various levels in the world of adults, most notably perhaps in the sphere of politics and the economy. Despite the diversity in definitions and descriptions, Wiseman reported a growing consensus regarding the concept and identified "knowledge, motivation, and skills to interact effectively and appropriately with members of different cultures" as the three main features which have come to be accepted as main components of "intercultural communication competence" (Wiseman 2002: 208). These criteria are best reflected in Michael Byram's model (1997) which, in the course of the past decade, has repeatedly served as a point of reference in the discussion of intercultural competence in the European context. Moreover, he is noted for his work regarding the implementation of intercultural competence in EFL classrooms. His research is of special importance to European teachers because it constitutes the basis for the concepts formulated in the Common European Framework (Council of Europe 2001). Byram sees "intercultural communicative competence" as a unit of culture-related knowledge, skills, and specific attitudes, combined with linguistic, sociolinguistic and discourse competences. What he regards as factual knowledge refers to "social groups and their products and practices in one's own and in one's interlocutor's country, and of the general processes of societal and individual interaction" (Byram 1997: 51). Among the required skills Byram lists an ability for discovery, interpretation, and interaction together with a critical cultural awareness. Finally, the attitudes he associates with intercultural competence comprise openness, curiosity and a readiness to refrain from passing judgment on cultures (both other people's and the speaker's own). Equipped with this set of intercultural skills and knowledge, he claims, individuals find themselves in a much better position to navigate the challenges of intercultural contact.

6.3 Intercultural aspects in the context of bilingual immersion programmes: ELIAS

6.3.1 Setting: Preschools and children

The ELIAS project (2008-2010) monitored the development of young children's first (L1) and second language (L2 English) acquisition and studied the behavioural pat-

terns discernable in situations of intercultural contact in the settings of nine bilingual preschools in different European countries. The project's goal was to shed further light on the effectiveness of the bilingual preschool concept and to document the children's learning progress. Two other preschools were located in England and served as comparison groups for the language acquisition data. However, no data on intercultural behaviour was elicited there.

The number of children per preschool varied between 15 and 90; the average group size was 17. The age range was between 36 and 72 months. The percentage of children with a migrant background (L1 not the ambient or majority language) ranged from 6.7% to 18.2%. All preschools employed native speakers of English (from a variety of countries including Great Britain, USA, Canada, Australia, Malaysia, Trinidad and Tobago) to provide naturalistic language input. The children came from various family backgrounds, covering a wide range of the social spectrum.

6.3.2 Research

Since intercultural situations at the preschool level have so far not been extensively studied, there is little research to draw on. In view of the complex nature of such an endeavour and in the absence of an established research routine, the research team decided to pursue its own work with a pronounced descriptive dimension and chose an ethnographic approach because it promises the best results for the specific conditions to obtain in the context of preschools (Corsaro 2005). By observing children interacting with each other in the bilingual preschools through participant observation, it was attempted to provide a rich description of the context of behaviour and development. It was assumed that by taking this approach previously unanticipated features of intercultural behaviour would be uncovered that deserve more focused observation and investigation. The ultimate goal was to derive a detailed and comprehensive description of the children's behavioural repertoire.

The observations and experiences accumulated during the project's pilot phase led to specific research questions:

1. Can intercultural competence be observed and described in the context of bilingual preschools?
2. What are the situations in which intercultural competence becomes visible?
3. What forms of intercultural behaviour do the children exhibit, i.e. what are the indicators for intercultural competence in children aged 3-6 in bilingual preschools?
4. Does continued exposure to situations involving contact with other cultures and their representatives lead to a change in these children's behaviour?

Additional questions, such as "How can changes in intercultural behaviour be explained?" or "How can intercultural competence be fostered in child-care environments?" could not be addressed in the limited time frame of the ELIAS project, but they remain important issues in further research on the topic.

The results from the first phase of observations led to a more refined set of categories with corresponding examples and descriptions. Following this, a detailed observation catalogue derived from theoretical underpinnings and practical experience was developed and distributed to the observers in all ELIAS preschools. With the help of this guide, the individual observers compiled a corpus with intercultural incidents in their respective preschools. The final version of the ELIAS ICC Field Guide was put into use in the last phase of observation which began in January 2010 and ended five months later.

The categories which emerged from this inductive process were then related to categories found in other studies on interculturality (Auernheimer 2005; Bennett and Bennett 2004; Byram et al. 2001; Byram 1997; Erll & Gymnich 2007; Kühlmann & Stahl 1998; Prechtl & Lund 2007; Witte 2009) and were ultimately shaped into a grid that covers the extent of relevant data collected during the lifetime of the ELIAS project. The main division into the superordinate categories of Attitude, Knowledge and Skills has been adapted from Byram (1997: 34). Section 6.4.1 provides an overview of the categories. For more detailed information on the research method used see Gerlich et al., volume I, and Gerlich (2010).

6.4 Results and Discussion

6.4.1 Categories of intercultural encounters in bilingual preschools

A variety of terms have been used by different authors to describe the complex phenomenon of intercultural competence (Byram 1997, Erl & Gymnich 2007: 7, Bennett & Bennett 2004: 153, Kühlmann & Stahl 1998: 217f., Prechtl & Lund 2007: 472, Ruben 1976: 340, Witte 2009: 55; for more details see Gerlich 2010). These terms have been used, adapted and complemented with our own observations. As a result, categories used for coding the data include (A) fear / rejection, judgmental statement, tolerance / acceptance, hesitation, regret, interest, no interest, motivation for contact, motivation for language; (B) factual knowledge, language knowledge, lack of knowledge, meta-linguistic knowledge / meta-communication; and (C) verbal communication strategy, non-verbal communication strategy, lack of communication strategy, negative strategy of communication, skill of discovery, deduction / transfer, mediation / translation, guidance. These categories were ordered according to the threefold division into (A) Attitudes, (B) Knowledge, and (C) Skills, used by Byram (1997: 34) and Erl & Gymnich (2007: 7), which was found to be the most basic one and comparable in various sources. The data do not allow formulating stages or levels. Most of the descriptions of competence demand a kind of "Can Do" statement (compare BMBF 2007: 154; Council of Europe 2001: 25), a statement describing the existing feature(s) of the competence. Nevertheless, observation reveals several instances of behaviour that could be related to the term "competence" in a "Can't Do (yet)" statement. Therefore, each main category can be completed with its "Can't Do" counterpart, for exam-

ple "knowledge" and "lack of knowledge," "tolerance" and "lack of tolerance," and so forth. It has to be stated, however, that not all counterparts were present in the current data set, and were therefore not included in the description.

A Attitudes

In accordance with Byram's proposition, the ELIAS framework is limited to "attitudes towards people who are perceived as different in respect of the cultural meanings, beliefs and behaviours they exhibit, which are implicit in their interaction with interlocutors from their own social group or others" (Byram 1997: 34). The subcategories classified under attitudes comprise reactions which may either facilitate or impede successful communication (Table 3). Inhibitors of intercultural communication were placed into the two subcategories: "fear / rejection" and "judgmental statement." Byram identifies curiosity, openness, readiness to suspend disbelief and judgment with respect to others' meanings, beliefs and behaviours as "precondition for successful intercultural interaction" (Byram 1997: 34). In the bilingual preschools, instances displaying behaviour of this type have been grouped as "tolerance / acceptance," "interest," "motivated for language" and "motivated for contact." "Hesitation" was added as a subcategory to cover situations in which no clear orientation towards openness or rejection could be detected.

Category	Definition
fear / rejection	children cry, flinch, avoid contact, yell or show other signs of discomfort when exposed to manifestations of cultural difference; children refuse contact with certain persons, languages, objects or actions related to another culture
judgmental statement	children utter phrases which express disrespect for or negative assumptions about another culture; children laugh about utterances, actions, beliefs or habits of persons from a different culture in a disrespectful way
tolerance / acceptance	children show openness or a welcoming reaction toward persons, objects and actions from a different culture; children respect rules of an intercultural situation
hesitation	children seem to avoid or seem cautious or shy towards persons from a different cultural background, their actions or objects associated with them, but they do not show signs of rejection
regret	children express sadness or disappointment about certain conditions associated with an intercultural situation
interest	children appear curious or want to gain knowledge about other persons, objects and actions that are connected to a different culture
no interest	children appear disinterested in displayed objects, themes or other newly introduced features
motivation for contact	children appear eager to become involved or to be in contact with L2 teachers or with children from different cultural backgrounds
motivation for language	children appear willing to learn the L2 spoken in preschool context or other languages; children show appreciation for language skills

Tab. 3: Definitions of ELIAS Categories for Attitudes

B Knowledge

Knowledge plays an important role in intercultural encounters because, as "relational knowledge," information about other countries is "acquired within socialisation in one's own social groups and often presented in contrast to the significant characteristics of one's own national group and identity" (Byram 1997: 36). Byram distinguishes between knowledge about the specifics of social groups and their cultures in a person's home country and their equivalents elsewhere on the one hand ("declarative knowledge"), and knowledge about the processes of interaction on the other ("procedural knowledge").

Since the preschool environment does not offer any extensive or systematic formal education about other countries and their people, the children's knowledge is based on informal socialisation in the form of information provided and stories told in the family, the preschool, or the neighbourhood. Often such stories are marked by stereotypes and prejudice (Byram 1997: 36). This knowledge may be supplemented and modified by practical experiences individual children have, but the children's cognitive abilities at this age limit the level of sophistication that can be expected with regard to their critical self-awareness, let alone with regard to Byram's "meta-linguistic knowledge" or "meta-communication." Due to these constraints, the factor "knowledge" does not contain a category for this dimension of intercultural competence. It does, however, include "factual knowledge of culture" which subsumes a child's knowledge of his or her own and/or another culture together with any kind of world-knowledge the children have acquired so far. As an important prerequisite of successful intercultural communication, "language knowledge" is listed separately in the survey grid. The category "lack of knowledge" was introduced to document those situations which indicated that the children had no appropriate frame of reference for their interaction. Table 4 gives an overview of the study's knowledge categories and their definitions.

Category	Definition
factual knowledge	children utter, reproduce, or recount facts relating to national or ethnic culture, identity, habits, rules, etc.
language knowledge	children utter, reproduce, recount words or phrases in a language which is not their L1; or in their L1, if L1 is not the majority language nor the target L2 of the preschool
lack of knowledge	children appear to have a deficit in factual knowledge on culture-related issues or language knowledge; this does not necessarily include a negative connotation or interpretation
meta-linguistic knowledge / meta-communication	children utter assumptions or factual knowledge about language, language construction, or communication; children talk about different languages and/or about communication strategies

Tab. 4: Definitions of ELIAS Categories for Knowledge

C Skills and Abilities

The third factor in Byram's (1997) model, skills and abilities, by its nature strongly depends on the level of an individual's cognitive development. Since the skills of "interpreting and relating" (p. 52) which also depend strongly on a person's knowledge,

and "critical cultural awareness" (p. 53) are advanced skills, they will be rare to find in preschool children. Being able to interpret, to explain, and to relate events experienced in the context of an intercultural encounter requires a degree of sophistication that young children simply do not possess. Byram's description of the skills of "discovery and interaction" (p. 52f.) likewise include complex intellectual operations that are beyond what can be expected of preschoolers. However, this is not to say that this part of Byram's model cannot be adapted to the age level under consideration. In essence, several of the abilities listed in Byram's model can be found in young children's behaviour and can therefore be incorporated into the observational framework. Some aspects of the skills of "discovery and interaction" (the ability to acquire new knowledge of a culture and to transfer it to real-time communication and interaction) are so fundamental to human contact that they must be considered a basic ingredient of human interaction. Similarly, skills needed to reduce uncertainty and anxiety when confronted with unusual circumstances are also very relevant for the development of young children. Therefore, it should not come as a surprise to learn that children do indeed manage, more or less successfully, to "tolerate ambiguity, to deal effectively with situations even when there is little objective information present and outcomes are difficult to predict," "to empathise, involving cognitive, affective and communication components," "to adapt, especially adapting behaviour to the expectations of others" and "to make accurate predictions and explanations of others' behaviour" (ibid., p. 16). These considerations have made it possible to create a set of categories to describe such skills as were observed in the course of the project (Table 5).

Category	**Definition**
verbal communication strategy	children use verbal utterances to react to or interact with their chosen interlocutor/s from another culture, for example by choosing the adequate language, or by adapting their own language to the interlocutor's abilities
non-verbal communication strategy	children use mime and body language to react to or interact with their interlocutor/s
lack of communication strategy	children appear to lack a verbal or non-verbal strategy to interact with their interlocutor/s, which results in unsuccessful communication
negative strategy of communication	children use a successful strategy of communication to fulfil their intention, but the children's intention is to stop communication rather than to enhance it, e.g. by excluding other children
skill of discovery	children use a successful strategy to acquire knowledge or gather information, for example by asking questions
deduction / transfer	children combine factual and/or unconscious knowledge to establish interrelations between facts of which they had previously been unaware
mediation / translation	children use a successful strategy to solve a misunderstanding or a dysfunction in communication between individuals of different cultural background, for example by mediating, translating or explaining
guidance	children successfully use a strategy to include another individual from a different cultural background into a group, an activity, or to introduce him or her to certain knowledge; this strategy is not restricted to dysfunctional communication, and it usually includes other strategies, such as the skill to mediate and translate

Tab. 5: Definitions of ELIAS Categories for Skills

6.4.2 Category analysis

Due to limited space this section can only describe one example representative of the ELIAS data interpretation (see below). Interested readers may refer to Gerlich et al. (volume I) where each category is explained and illustrated with examples. It has to be noted that, due to the complexity of the situations observed, in most cases there were several categories which pertained to one situation. This is intuitively clear as, for instance, a certain skill of intercultural competence usually also involves a certain attitude towards the other person, etc. As the data samples frequently include more than one person, several attitudes and instances of knowledge or skills can be identified simultaneously. For this reason, and the observation effects described in Gerlich et al. (volume I), a quantitative analysis of the data would not yield valid results. Frequency measures were given, however, to make possible a rough comparison between situations which the observers noted very frequently (such as different strategies of verbal communication), and those which were observed only in exceptional cases (such as a negative strategy of exclusion, Table 6).

Attitudes	#	Knowledge	#	Skills	#
fear / rejection	12	factual knowledge	38	verbal communication strategy	41
judgmental statement	8	language knowledge	57	non-verbal communication strategy	14
tolerance / acceptance	35	lack of knowledge	32	lack of communication strategy	2
hesitation	11	meta-linguistic knowledge / meta-communication	30	negative strategy of exclusion	2
regret	3			skill of discovery	28
interest	28			deduction / transfer	19
no interest	2			translation / mediation	10
motivation for language	32			Guidance	7
motivation for contact	40				

Tab. 6: Categories used to describe intercultural competence in the context of the ELIAS project

The example of Sit. 9-10-21 shows clearly why, in a complex situation with several participants, more than one category of attitudes, knowledge or skills comes into play:

Situation 9-10-21:
09-49 is jumping on the mattress. 93 (L1): "09-08, do you know that 09-49 only knows very little German?" 09-08: "Yes!" 93 (L1): "Who told you?" 09-08: "Nobody." 09-08 pulls at 09-49's sleeve to indicate that he should go off the mattress. Then she jumps on the mattress and lets herself fall. 09-49 observes her and imitates her movements. 09-08 keeps ongoing eye contact with him and observes what he is doing. (They go on playing, 09-08 models movements for 09-49 and helps him imitating them. Both laugh and keep eye contact. 09-49 speaks in Hebrew from time to time and goes on laughing, playing with 09-08 and imitating what she does.) 09-08 pushes 09-49 for fun and invites him to do the same. He does, and both laugh.

Comment:
09-08 and 09-49 were really in contact with each other, mutually observing the other. 09-08 shows great sensitivity in talking to 09-49, her German was fitting to 09-49s level of understanding. The combination of action and talking helped 09-49 a lot to find into a play, together with 09-08. Although the children don't remember with whom they talked about 09-49's difficulties communicating in German, 09-08 did a great job adapting her speech to 09-49 level of understanding. The atmosphere was really relaxed and funny. For the first time I saw 09-49 really relaxed. [translated and adapted situation from data set]

The readiness of child 09-08 to help child 09-49 and to explain how to do things makes it possible for the two children to play together although they share neither language nor culture. Both show tolerance and high motivation to get in contact with each other. The girl understands the new boy's language level and his difficulties to understand. Both children use non-verbal and verbal communication skills, but the girl's adaptation of her language and the combination of different modelling strategies go far beyond such skills and show true guidance to integrate a child from a different culture into her own activities.

6.4.3 Discussion: The Study Outcome

As the preceding sections have shown, it can be said that children do actively engage in intercultural encounters and recognise them as such in many observed examples. Issues such as different languages, different places of origins or skin colour attract children's attention and prompt them to explore and negotiate the situations in which they arise. In the majority of the cases in which this happened, the children in this project mastered the multilingual, intercultural environment very well. On many occasions, they exhibited positive attitudes, knowledge about their own and other cultures, and skills with the help of which they solved problems arising in intercultural communication. An open and positive attitude towards cultural difference was found not only with regard to adult L2 teachers (who hold a position of authority) but also in contact situations between children and their peers from migrant backgrounds.

Given this generally positive climate it seems only logical that instances of negative behaviour (e.g. by excluding, ridiculing or insulting others on the basis of their cultural difference) are a rare exception in the data set. There is no evidence that children would generally reject foreign language teachers or children from a different cultural background. Attending a bilingual preschool where exposure to different cultures and languages is a daily occurrence seems in no way to subject children to a condition in which they might feel scared, intimidated or uncomfortable. Children who did show initial reservations, fear or signs of rejection in early encounters with members from other cultural groups abandoned such behaviour as their involvement in intercultural situations intensified (see Thomas et al., volume I). All observers reported that the atmosphere in their respective preschools was friendly and accepting.

Children growing up in the framework of a bilingual preschool find themselves in an environment which sends important signals to everybody who comes in touch with it: Becoming accustomed to the fact that people speak different languages, and experi-

encing that it is possible and not at all exceptional to learn other languages. This furthers a positive attitude towards multilingualism and has the potential to sensitise young children to the benefits that arise from a varied linguistic competence. It may also help create an atmosphere in which children and students who speak an L1 that differs from the majority language come to be seen as an enrichment to life in schools and preschools, rather than a problem.

6.5 Conclusion

Observations collected in the context of the ELIAS project have provided a basis for the assumption that an intensive contact with members of a (national/ethnic) culture other than their own confronts children with the necessity of adapting themselves to a previously unknown form of interaction and provides opportunities for the formation of behavioural strategies and patterns that enable them to navigate and negotiate intercultural encounters with confidence and competence. As they grow up they may discover that their early experiences and successes in a multilingual and multicultural environment have given them an important tool to master the challenges of a world increasingly shaped by the transformative processes of internationalisation.

7. Green Immersion

7.1 Introduction

In a world that is emphasising the need for individuals to carefully consider their impact on the environment because of population explosions and increasing use of natural resources, it is important to be prepared to deal with these demands. Environmental education is a solution to an individual's need for developing their character of Action Competence (Stokes et al. 2001, WAZA 2005). To strengthen this development, environmental education should begin during the early stages of childhood (Wilson 1995). Therefore, preschools are the opportune institutions to prepare children. Currently, formal environmental education encompasses ecological, economical and societal aspects (Earth Summit Conference 1992). Even though these topics are complex and highly interconnected, preschool programmes have the opportunity to create fun and stimulating activities which invite a child to learn about these environmental topics in a child-friendly way. The children of today are those who will have to live in and deal with the environmental problems of tomorrow. Therefore, early environmental education may be the key for creating future individuals with the potential for positive role-playing in the sustainability of the environment.

The *Zoo-Kindergarten* in Magdeburg, Germany, combines early childhood environmental education and second language acquisition in their preschool programme. The children at the zoo preschool are presented with environmentally themed learning activities conducted entirely in their second language English. This method of education

has been labelled "Green Immersion" (GI) by the ELIAS project (Kersten & Perret 2008). Over a period of 19 months a research study was conducted on the GI programme, which examined the effectiveness of the education of GI, how to effectively teach GI, and to note if children exhibited a difference in their environmental learning abilities. The overall research question was: How, and to what extent, do the children in the zoo preschool learn through the teaching of GI? The expected outcome was: When the children in the zoo preschool are provided with appropriate environmental education they should exhibit a development and expansion of environmental sensitivity.

7.2 Structure of the Research Study

Green Immersion (GI) is an environmental education programme that assists children in their understanding of environmental topics by presenting the children with a weekly, two-part activity, taught all in the foreign language, without translation. The environmental education themes GI presents to the children are based on current environmental issues. These broader environmental issues are broken down into child-friendly activities and supported with appropriate educational materials. The weekly activities are two-part sessions; a preparatory session on that week's environmental topic and a corresponding practical application session.

The study began in October 2008 with qualitative teacher observations of the children's learning growth. These observations noted the children's attitudes and the children's responses to the environmental topics. Five months into the research study a pilot study was conducted to evaluate the effectiveness of the materials, which was intended only as an assessment for understanding the zoo preschool children's comprehension of GI materials and the effectiveness of the teaching method. Later, a more quantitative checklist was developed. The aim of the new checklist was to observe both group and individual growth through the various levels of GI learning which were based on a model by Janßen (1988).

Janßen's model describes an individual progressing through six different levels of encountering nature and it was chosen because it accounts for language, which is a focus in GI. Progression through the levels signifies that an individual was acquiring more environmental knowledge and how they respond to that knowledge; i.e. by simply experiencing, then describing it, etc. To be incorporated into the GI research study, Janßen's model was adapted to fully appreciate the subtleties of GI.[3] The original model had only one repetition cycle, from the highest level (Action Competence) back to the first level (Experiencing nature), signifying environmental learning is continuous; i.e., even though a learner has reached the highest level, with each new environmental topic/theme presented, they would go back to the first level of environmental

3 Janßen's model was as follows: Experiencing nature, Describing nature, Explaining nature, Understanding nature, Environmental awareness, Action competence.

learning, beginning the process of experiencing nature again. However, since GI has more emphasis on language acquisition, an additional repetition cycle was needed to show how the children learned and negotiated the second language. Hence, a second cycle was added between the third and fourth levels of the adapted GI model, as explained below.

The GI model was adapted such that the names of the various levels were slightly changed to better describe the level in English and, as mentioned previously, an extra repetition cycle was added to show language negotiation and acquisition. The six adapted levels of GI learning are the Emotional Level, the Describing Level, the Repetition Level, the Understanding Level, Environmental Awareness and Action Competence. The model shows how an individual – in this case a child – begins his or her environmental experience by *emotionally* engaging the environmental topic/activity. Then as the child grows in his or her environmental knowledge, that child *describes* the topic/activity in his or her own words.[4] As the child continues, the next level would be an introduction to the new foreign language and to the accurate environmental facts. At this level the child is encouraged to *repeat* back the facts in either language. As the child acquires the language and environmental facts, the child is encouraged to *describe* the topic/activity again. Then as the child becomes more confident with the language and environmental facts, more language and facts are introduced and the process of *describing* and *repeating* occurs again. It is between these two levels, Describing and Repetition, where the extra cycle was added. Then, as the child acquires more knowledge of language and environmental facts, the child begins to better *understand* the environmental topic/theme. In the final two levels, Environmental Awareness and Action Competence, higher cognition takes place. In these levels the child begins to comprehend the interconnectivity of the various environmental issues, as obtained through the knowledge acquired in the GI programme as well as their own personal reflections. Then the child takes these connections and creates a personal guideline, applying the guideline in ever-expanding spheres of influence. To elucidate, first the child personally applies his or her environmental knowledge as a guideline of how to positively impact and interact with the environment, then progressing to include family members, friends and finally society.

The checklist was also created to observe each level as to the degree of participation in the group or the individual, on a Likert scale of 1 to 4; the degree of participation being how intensively the children participated in the activity at the various levels. Each level of GI learning had set goals and indications which helped to sort the observer's observations of the children's progression into more uniform results. The observations collected using this checklist covered a period of five months from January 2010 to May 2010.

4 Note that the description of the topic or activity does not have to be scientifically accurate. Instead, the child is to simply talk about the topic/activity. Also, the descriptions may be in either language.

7.3 Results and Discussion

During the first weeks of the GI programme, it was very interesting to observe that some children in the programme displayed unfavourable behaviours towards English, and consequently GI. The unfavourable behaviour towards GI stemmed from the fact that all GI activities were led by English speakers. As some children rejected the English activities, this led to a rejection of those teaching GI. Granted, the rejection of GI could have been unique to this particular situation, resulting from other factors.[5] Unfortunately, these forms of adverse behaviours did have an impact on the children's GI learning abilities. Since these children avoided GI activities, which hindered them from emotionally engaging in the environmental activities, their growth through GI was either absent or minimal regarding the related activities. The L2 preschool teachers knew that in order to overcome these adverse behaviours and to begin realising the fundamental goal of GI, something needed to change. Therefore, the L2 preschool teachers began to create highly contextualised materials and sessions.

In the following months, there was a steady increase in the children's use of English and their interest, and even anticipation, of the GI sessions. It was considered that the changes in the teaching approach, as well as an increase in child-teacher familiarity, brought about this increase. The increase in the children's interest was very positive to note; reasoning that the changes to the GI programme were profitable for this group of children as they grew through GI learning.

As mentioned in the introduction, after the first few months of GI in the zoo preschool, a pilot study determined whether the children were indeed following the GI sessions. More importantly, the pilot study helped to identify how the materials affected the learning of the children. The results obtained from the pilot study assisted the researchers in determining a new educational method: the creation of two teaching levels of Green Immersion. The first teaching level was created for those children just beginning their GI experience. The second level was intended for the more experienced children (experienced in both languages and environmental topics). With the creation of two levels, and corresponding appropriate materials, the children had more opportunities for becoming active participants in their learning. This active participation in the GI sessions is important for the child's growth through GI learning and hence for the child's environmental cognition. Active participation, or active learning, in a child helps to establish new connections and a new understanding of environmental topics (Wilson 1995, Bandura 1999, Breiting et al. 2009).

The same GI checklist, which was developed to observe the children's progress through GI, was also used to monitor the effect of materials. Learning with all five senses, i.e. sight, sound, taste, touch and smell, can help to enrich a child's learning experience and create a deeper meaning of the topic explored (Wilson 1995, Dumouchel 2003). For example, activities which use a variety of educational materials such as

5 For a more detailed explanation please see the Green Immersion chapter in volume I.

'real' objects, photos and/or videos, provide children with more opportunities to experience that particular environmental topic/activity. With each opportunity they are able to connect in a different way, making that topic/activity a richer experience.

The study conducted on the GI programme in the zoo preschool showed that the children in the programme did learn and comprehend environmental topics, and that the children did in fact progress through the levels of GI learning; even into the higher levels of GI learning. The educational goals for this study were also reached: children in this preschool showed an increased appreciation for nature-related/environmental themes. Furthermore, the research goals for this study were achieved, in that the researchers determined that there was little difference in learning ability between girls and boys. However, there was a difference in learning ability between younger and older children. Finally, the results of this study also showed that materials which are used in a GI session do impact the children's learning ability, in both a positive and negative way. The study could also show which GI teaching materials encouraged a positive effect in the children's learning and growth.

7.4 Conclusion

The research conducted on GI helped to identify how a child acquires environmental knowledge in a bilingual setting. The data collected also indicated that the children in the GI programme increased in their environmental knowledge and environmental appreciation. The observations and data also helped to determine which educational materials positively stimulated the children in the GI programme, and which materials did not.

The limitations of this research study were such that only a small group of participants were observed, and of those participants none came from a background of 'high' environmental awareness. Also, the children were only observed over a 19 month period. In order to determine if the patterns observed in the zoo preschool's children were applicable to other groups, a larger study group would need to be observed and should be observed for a longer period of time. The GI checklist created for this research study was tailored to that particular preschool group. However, the checklist was adapted from a generalised model and should be applicable for other GI programmes. A difference which might be present in other GI programmes would be the speed at which the individuals progress through the levels of GI learning.

Children are the hope for a more environmentally sustainable future. They are the agents of the future and it is the present preparation which will assist them in becoming positive participants in their future roles. However, children do not become action competent without guidance along the way. Whether parents provide an example of love towards animals and/or the environment for their children, or school teachers provide their students with the same example, it is much easier for a child to become an individual of action competence when they see it in everyday life. For those young

children with parents or caregivers who provide surroundings fit to nourish growth in action competence, their future of being positive participants in a world of environmental issues will be more stable and certain.

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How to Start a Bilingual Preschool: Practical Guidelines[1]

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1. Introduction

For several decades, bilingual preschools have been an integral part of the education system in some European countries (Eurydice Survey 2005, 2006), and more and more institutions are striving to implement bilingual groups into their programmes. Despite these indications that an active interest in establishing and running bilingual preschools has been increasing over the past years, it has been our experience that the initial set-up phase is – almost unavoidably – hampered by a set of practical questions which seem to be the same everywhere.

Research and the experience of many practitioners in the field have pinpointed many such problems, and a range of solutions has been suggested for some of them. Though a variety of information resources are available, we have observed that many of these problems re-occur when new programmes are implemented. The following guidelines are designed to raise awareness of the various difficulties that may arise when new programmes are started and to help avoid unnecessary problems. Building on insights from research studies and the input provided by experienced practitioners[2] from the ELIAS project and elsewhere, we will outline best practices from well-established bilingual preschools with respect to a wide range of factors that may affect the success of a bilingual programme. Such factors include the overall goals, the setup of the bilingual groups, the role of educators, parents, heads of preschools and politicians, as well as organisational and practical recommendations. Many of these issues refer to bilingual primary schools as well as to preschools.[3]

Up to now, we have used the term "preschool" to refer to children in pre-primary education in general – yet, pre-primary education covers a range of distinctly different concepts. Some programmes differentiate between children up to three years (nurseries, crèches, Krippen) and children of three years or older (preschool, Kindergarten, école maternelle, Vorschule), but the age at which pre-primary education ends and

1 We are grateful to Aafke Buyl, Anna Flyman Mattsson, Holger Kersten, Christina Schelletter and Anja Steinlen for comments on an earlier draft of this paper.

2 If not indicated otherwise, all issues and recommendations discussed in these guidelines arise from a workshop held in the context of the ELIAS project and are based on the experiences of researchers and practitioners from ELIAS preschools.

3 Guidelines with a special relevance for the implementation of immersion in primary schools can be found in Kersten (2010) and Kersten et al. (2010).

primary school education starts differs throughout Europe and world-wide. The term "kindergarten" is used variably to include both groups, or only children in their final preparatory year before they enter regular schools. The different job titles used for pedagogues in pre-primary education reflect how differently their function is perceived in different countries. They are referred to as nurses, educators, teachers, to name but a few terms, and their professional training requirements differ accordingly.

In these guidelines, we use the term "pre(-)school" as a cover term to include the whole range of institutions which lead up to primary school education, independent of the age of the children. We use the term "teacher" for the pedagogic personnel if the staff involved perform specific educational tasks. Finally, we use the term "bilingual" for a preschool if the L1 and L2 teachers adhere to the one-person-one-language principle, and are equally involved in guiding their respective groups. For reasons of brevity, we will refer to the first language or the mother tongue of a child as to her or his L1 (Language 1)[4] and to the second or foreign language in the preschool as L2 (Language 2).[5]

Part A of these guidelines will give a brief introduction to the immersion concept on which bilingual programmes are based; Part B will relate best practices in bilingual preschools.

Part A: The Immersion Concept

2. Why choose bilingual education?

Knowing different languages is of growing importance for personal development. Language skills provide better chances for communication and exchange in the European market and in an increasingly globalised world. In its 2004 Action Plan, the European Commission takes these new developments into account and, consequently, promotes foreign language learning at a very early age:

> Language competencies are part of the core of skills that every citizen needs for training, employment, cultural exchange and personal fulfilment … It is a priority for Member States to ensure that language learning in kindergarten and primary school is effective, for it is here that key attitudes towards other languages and cultures are formed, and the foundations for later language

4 Note that this is not necessarily the national language of the country where the preschool is situated nor the language which the majority of children and adults in the preschool speak. For a child whose parents speak Turkish and who attends a German-English preschool in Germany, Turkish would be the L1.

5 In this paper, we do not differentiate between the terms *second* and *foreign* language. Note also that the L2 of the preschool, e.g. L2 English in a German-English preschool in Germany, although being the L2 of most of the children in the preschool, may be the third or even fourth language of an individual child, if he or she comes from a multilingual background.

> learning are laid, … **in particular by teaching at least two foreign languages from a very early age."**
>
> (European Commission: Promoting Language Learning and Linguistic Diversity: An Action Plan 2004 – 2006, p. 8; our emphasis)

Bilingual preschools are the first part of an educational programme which is aimed at achieving functional multilingualism (Council of Europe 2001). To fully accomplish this goal, it is necessary to continue successful foreign language programmes in primary and secondary education (section 8, see also Wode, this volume).

Factors which enhance the second language

Providing early opportunities for contact and interaction with a foreign language results in a longer overall contact time with the L2 and thus in improved opportunities for language learning. Additionally, bilingual preschools provide further factors which have been identified as beneficial for the child learner (e.g. Burmeister 2006, Met & Lorenz 1997, Piske et al. 2001, Wesche 2002, cf. also Kersten et al., this volume, Weitz et al. volume I): The young age of the learner, a long exposure to the L2, a high intensity of the language programme, the active use of the L2 and also the specific pedagogic strategies used in bilingual programmes have been found to advance the children's language attainment: data from the ELIAS project have shown for the first time that the teaching principles used by L2 teachers have a significant effect on the children's language learning, that is, children show the best results when teachers provide a high quantity and quality of language input, when they ensure comprehension by visualising and contextualising everything they say and when they explicitly encourage the children's language production (Weitz et al., volume I, see also section 6 below).

Naturalistic learning and authentic communication

Immersion programmes work best when teachers use the target language in the authentic contexts of the children's everyday life. Language in preschools should always be content-based, i.e. the language is not in the prime focus of attention but is used as a means of communication instead (e.g. Richards & Rodgers 2001). By ensuring this, teachers provide an ideal learning environment for learning another language, as well as for learning different contents. If it offers children audio, visual and tactile information in their encounter with the new language, it fosters multi-sensory learning, and thus caters to the children's different learning styles. To establish contact with their L2 teachers, children also need to and do experiment with different verbal and non-verbal communication strategies, a fact which adds to their repertoire of expressing themselves.

General cognitive advantages

For these reasons, scholars believe that early intensive multilingualism also fosters the general cognitive development in a child. Children are able to think more abstractly

and they have a higher awareness of languages and their similarities and differences (metalinguistic awareness) than their monolingual peers. Using two languages actively also raises the children's cognitive control, their working memory and selective attention, i.e. their capacity to focus on one language without completely suppressing the other, and their general planning and problem solving abilities (e.g. Bialystok 2001, for an overview see Festman & Kersten 2010).

High level of second language attainment

Children attain a competence in their L2 which is much further advanced than that of most of their monolingual peers at that early age. Generally, comprehension precedes production, i.e. children understand the L2 better than they are able to speak it. Sometimes, children even produce the L2 in full sentences at the end of their preschool years. Under favourable circumstances (e.g. extended contact with and high intensity exposure to the L2, as well as competent L2 input), some ELIAS children were able to reach a level in the L2 comprehension of English which resembles (but does not exactly equal) that of monolingual English children (Steinlen et al., volume I). This level of language competence depends on various factors, many of which will be described below.

The first language does not suffer

Preschoolers at the age between three and six years are still in the process of acquiring their first language. Parents often ask the question whether the first language will suffer from an extensive exposure to a second language at such a young age. However, research conducted over several decades has repeatedly shown that this is not the case. On the contrary, children who learn a second language in an early intensive bilingual programme may equal or even outperform their monolingual peers in their first language (e.g. Swain 1974, see also Steinlen et al., volume I and this volume).

Learning about different cultural backgrounds

Moreover, bi- or multilingual preschool groups are, in most cases, bi- or multicultural as well. Most of the educators in bilingual preschools are native speakers of the preschool's L2 and originate from another country. Thus, even if all children are from the same cultural background, at least one of their attachment figures (the preschool teacher) introduces them to a different culture. Children in the ELIAS preschools have been observed to overwhelmingly react in a positive way to cultural differences: they accept and trust the native speakers, they are interested in their language and their origin, they ask questions and talk about language, they help each other understand the unfamiliar language and they even translate for each other. In other words, the bilingual preschool context creates opportunities for the development of social competences. Rejection or negative prejudices are rare. The few children who initially showed fear of a person from a different background overcame these attitudes quickly and later created a close bond to the L2 preschool teacher (Gerlich et al. and Thomas

et al., volume I). The bi- or multicultural situation of these preschools presents a valuable context for all educators to raise awareness of and tolerance for cultural differences.

Bilingual learning is suitable for all children

All children have the ability to learn a second language (Chilla et al. 2010) and bilingual preschools provide a beneficial environment for the acquisition of a new language plus the above-mentioned competences. This happens regardless of the children's social or cultural background, their language aptitude, or other differences that might exist. No special talent for language learning is needed to benefit from bilingual education in the preschool. Metalinguistic understanding of the language, reading and writing are not required in bilingual preschools.

In the discussion of bilingual education, questions are often raised about children with a migrant background. In our research context, we have observed that children whose cultural and linguistic background differs from the surrounding majority adapt very well to the bilingual preschool setting. The results of their receptive L2 vocabulary and grammar learning does not differ significantly from that of their monolingual peers (see Rohde and Steinlen et al., volume I).[6] However, one word of caution is in order at this point: parents and preschools have to make sure that a child learns his or her first language, i.e. the language(s) spoken at home, as well as the majority language, in an age-appropriate way (Council of Europe 2006). Researchers have claimed that, if a child's first language does not develop at an appropriate rate, children may run the risk of becoming "semilingual" (e.g. Cummins 1982, 2000)[7] and thus fail to develop sufficient academic language skills in either of their two languages. At this particular age, the general cognitive development is, after all, linked to language development.

However, this problem has really nothing to do with bilingual preschools – it is rather an effect of parental attitudes and the general conditions of educational systems. It can also be found in monolingual programmes. Educators who are aware of such problems should make sure that both home language and majority language receive equal attention. More often than not, it is not a good idea for parents to abandon their own native language in favour of the majority language in an attempt to "help" the child in the new education system. Further information on the suitability of bilingual programmes is provided below (section 10).

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6 For children with a migrant background, the preschool's L2 is their second new language. What we observe here fits in well with results regarding the general cognitive advantages pointed out above. However, more research is needed to support the claim that bi- or multilingual migrant children indeed have an advantage over monolingual children when it comes to L2 learning in bilingual preschools.

7 The term "semilingualism" has been influential in studies of language acquisition, but the approach has also been criticised for methodological shortcomings with regard to sociological and psycholinguistic factors (see Chilla et al. 2010 for a discussion).

3. Education in a bilingual preschool

Education in bilingual preschools follows two main approaches. The first is the so-called *one-person-one-language* principle (Ronjat 1913, Döpke 1992). It is derived from bilingual families in which each parent uses his/her own mother tongue consistently with the child. Preschool teachers imitate this strategy. While one teacher uses the majority language (L1) in contact with the children, the other teacher uses the target language (L2). In most cases, both are responsible for one group of children, thus rendering the input truly bilingual.

The second approach is the immersion principle. The term immersion, in a linguistic context, is a metaphor which means that the children are "immersed" in the L2 just as they are immersed in water when taking a bath. It has originally been used for school contexts where the L2 is not taught as a subject but is used as a means of communication in at least 50% of the curriculum instead (e.g. Genesee 1987, Wode 1995, Zydatiß 2000). As many preschools do not have a teaching curriculum comparable to schools, the term has to be adapted to the preschool context. In this paper, we use it in the sense that *at least 50% of the language input provided in a bilingual preschool needs to be given in the L2* (based, e.g., on Genesee 1987, Wode 1995). Some exceptions to this principle will be discussed below (section 4).

As is characteristic of the immersion principle, the L2 is not "taught" in a bilingual preschool. Instead, it is used as the everyday language of conversation and activity by the L2-speaking teachers. The immersion concept has successfully been used for over 40 years around the world, and has been especially well documented in Canada (for an overview, see Wesche 2002). An increasing number of case studies shows that the concept has successfully been transferred to Europe as well.

Even so, it was pointed out that educational systems in Europe differ significantly from one another and that, as a result, the setup, starting age, terminology and educational goals of European preschools are difficult to compare. Part B will show that and why these differences are important in the setup of a new bilingual preschool.

Part B: Best Practices

4. Factors and conditions

Starting a bilingual preschool means, first of all, to be aware of the entire legal framework within which the programme will have to operate. Conditions pertaining to the fundamental design of the bilingual programme, language selection and the teaching staff (see below) are relevant to all preschool forms. However, some important differences exist between preschools operated by a public institution or by private initiative. In public institutions who would like to implement an immersion concept, the pre-

school is usually already in operation. They are not concerned with issues concerning location or funding. If, however, the preschool is built up from scratch, a whole range of other issues becomes important. Unfortunately, for instance, some private programmes still lack the institutional support they would need to offer good bilingual education and are forced to charge a higher fee than communal programmes. Therefore, the following sections first give an overview of some logistic factors pertaining primarily to private institution, and then moves on to factors of general relevance to bilingual preschool programmes.

Finding a suitable location

The building should be located in an area populated by families with young children and a financial basis which allows them to pay the rates charged by private institutions. It should provide enough space for several groups of children. It is recommendable to optimise the ratio of children per group and the room size with regard to the number of teachers that have to be provided for them. Note that the size of a room presents a limitation to the group size: since at least one qualified teacher needs to be in the same room with the children at all times, more teachers have to be provided for groups with small rooms than for groups with large rooms, even if the overall number of the children may be the same in the preschool. This may result in an additional financial burden for the institution.[8]

Identifying the official authorities responsible for legal and technical questions

There are a number of safety rules and other legal and technical regulations which apply to preschools. To protect the children in the best possible way, these measures are often more restrictive than in other buildings. These requirements should be checked with the local authorities in advance in order to ascertain the suitability of the chosen location. Other prerequisites concern the preschool concept, the language choice and the selection of staff. Other authorities, such as e.g. the ministries of education or social affairs, are responsible for these questions. It is recommendable to identify and contact ahead of time the appropriate people in charge of legal issues, to find out about all conditions to be met and to ask for advice and help.

Acquiring sponsors and money for the basic equipment

Usually, existing buildings need to be renovated and adapted to become suitable for the requirements of a preschool environment. To meet the costs of a partial reconstruction and the purchase of basic equipment – if they cannot be covered by the monthly payments coming from the parents – it is advisable to have a starting capital. This often presents a serious obstacle for the project initiators. In such a situation it is very helpful to find local sponsors who are able to provide this money. Sometimes, banks

8 According to our experiences, small groups are beneficial for the children's language acquisition process. Some ELIAS partner institutions recommend an adult-child ratio of 1:4 for very young children at the age of 1-2 years, and of 1:6 for children of 3-6 years.

are willing to make money available at reasonable interest rates. Many creative solutions are possible to enhance such cooperations, such as specific marketing procedures (e.g. advertising opportunities) or special contracts and reduced membership rates for the sponsor's employees. It is very important that all logistic preparations be finished well ahead of the preschool's opening day (cf. Kubanek-German 1996).

Choosing the concept and the language

The concept of the preschool programme represents the cornerstone of the future work. In addition to the pedagogical approach (e.g. Montessori, Reggio, Waldorf, etc.) the group structure (open, semi-open, or closed, cf. Wippermann et al., volume I), and the preschool's content focus of their conceptual design, the choice of the language and its implementation in the preschool routine is of vital importance to a bilingual preschool. Our experience with the ELIAS preschools shows that bilingual education is compatible with all of these different approaches. As was explained in Part A, a language approach is recommendable which is based on the one-person-one-language-principle, and which offers at least 50% of the daily routines in the L2. This condition can easily be met if two teachers are fully responsible for the children, one of whom speaks the L2 at all times in contact with the children.[9]

The choice of the second language is also an important issue. The majority of preschools in Germany choose English as their foreign language. This is understandable since English is, for most children, the first L2 they will learn in school, but also with regard to the increasing importance of English as the vehicle language for communication in a global market. However, other reasons are important as well, such as language contact in border regions, the preservation of minority heritage languages, or the introduction to different cultures other than those from the Anglophone world (Wode 2009). In the decision about which language to choose, it is important to keep in mind that, in a second step, trained teachers have to be found to maintain the concept over time, especially if a language is chosen as L2 which is less frequently found. If a preschool already employs staff members who speak a different language at a native-like level, this language might present an easy option for the choice of the L2.

Selection of the staff

A. Languages: The preschool team is one of the most important building blocks of a bilingual programme. Therefore, the selection of the staff becomes a crucial issue for the setup of a preschool. There are several important issues which need to be recognised: As most bilingual preschools prefer to work with teachers who are native speakers of the target language (henceforth referred to as *native speakers*),[10] the staff will

9 Note that in trilingual preschools, such as the ELIAS preschool in Lund, Sweden, the language input will come from three different teachers. The amount of input in each language will necessarily be reduced to 33% for each teacher.

10 Some preschools consider the option to employ a non-native speaker with a very good competence in the L2. Such a decision, however, should be made only after the L2 language proficiency

consist of an international and intercultural team. This means that the team has to find forms of communication that enable its members to cooperate smoothly on an everyday basis. That this cannot be taken for granted is borne out by the following statement from a preschool teacher with several years of experience in bilingual teams (the survey from which this quotation is taken will be introduced below):

> **Quote 1:** I know from my own experiences working in an [intercultural] team and from other institutions that there might be problems between the L1-speaking colleagues and the native speakers. These problems often result from the different way of life, the different approaches to education, and also from language barriers, which complicate the communication within the team. If not both sides are willing to approach each other (with regard to the language and to social issues) and to understand their diversity, this may lead to problems and may hinder communication, which may affect the work or the immersion concept. (L1 teacher, translated by the authors)

To avoid such communication problems, it is desirable that all staff members should be bilingual. As this is rarely the case in a bilingual preschool, either the native speakers or some other staff member(s) should at least be able to understand the other language. Native speakers of the L2 are usually required to understand the first language of the majority of the children as a legal prerequisite for them to be given full responsibility for a group. Their language competence should be such that they can react quickly, appropriately and without help or translation in an emergency situation. However, this is not always the case. In most cases, the native speakers do not speak the majority language at a native-like level, a fact which may create an asymmetry in everyday communication. It is vital to the cooperation within the team to avoid any kind of imbalance between the group members arising from an unequal distribution of language skills. The responsibility for the groups as well as for questions of organisation, of the educational approach, of discipline and so on, has to be equally distributed among all team members. If the necessary language skills are lacking, alternative solutions have to be found to ensure that this will not adversely affect the role distribution in the preschool. Patience is a very important asset in this respect: language learning takes a long time, and a willingness to learn another language and dedicated support for this goal are needed from everyone in the team. It is an essential requirement for a successful operation of a preschool that the head of the institution is able to speak both languages in order to be able to discuss administrative questions with all parties involved. Otherwise, the linguistic hurdles might lead to frustrations, as the following

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of that particular person has been evaluated and verified. The L2 should be spoken at what is called a "near-native" level. More often than not, the level of language competence attained after having graduated from school is not sufficient for the tasks required in this line of work. In our experience, it has generally proved difficult to find teachers who have both the formal training and the language skills needed for a position in a bilingual preschool. In addition to that, it has been argued that such teachers usually lack the cultural (and intercultural) knowledge which native speakers of a language acquire in the course of a long socialization process in their own country. Very few non-native speakers have at their disposal the rich repertoire of language use with very young children, such as nursery rhymes, songs, and games, which is always a part of an authentic cultural heritage (Wode, personal communication).

quote from a survey on team communication documents. The survey was carried out after six months in a new international team in one of the ELIAS preschools.

> **Quote 2:** [Team communication within the first six months was] partly successful – unsuccessful: my choice is based on both intercultural differences and 'mono-cultural' differences. Some of the current issues could have been avoided if there was more of an open/clearer communication between all parties. Many frustrations stemmed from not being understood, even after repeated explanations, and then having to resign to the fact that my questions or comments would go unanswered. (L2 teacher)

> **Quote 3:** The organization of the school makes it difficult to find time to communicate things to other teachers, and this is compounded by the problem of things needing to be translated from someone's first language. If a note needs to be left to inform me of something, sometimes my [preschool L1 competence] is not good enough to understand completely, even if I understand the words, I am not sure what I am supposed to do about whatever the note said. Sometimes I also feel that the [L1] colleagues (being more direct or forward) don't wait for the English-speaking colleagues to finish their thoughts before jumping to a conclusion or making a decision. (L2 teacher; "L1" replaces name of the preschool's first language)

Such frustrations are easily avoidable if appropriate measures are taken to enhance the quality (and, if necessary, the quantity) of team communication and to ensure that each team member understands the issues at stake.

B. Training background and selection: Apart from skills in both languages, native speakers need to have a training background which will be accepted as an equivalent to that of the host country. Recognition of different foreign training degrees by the local authorities has proved to be *the* major obstacle in the recruitment of suitable personnel. In addition, the accreditation process often involves several administrative agencies and may therefore take several months to be completed (see also Schilk et al. i. pr.). For this reason, it is vital to learn as early as possible about all the legal prerequisites to be met and the measures which need to be taken at each of the multiple stages of the process. To rule out the possibility that an agency might reject an applicant, key contact persons should be identified and contacted in person well before any hiring is finalised.

It is important to realise that a teacher's educational training background is of importance not only for the recognition of personnel, but also for internal staff communication. Intercultural differences in training, educational approaches, questions of discipline and the like, will definitely arise and will need to be solved by mutual agreement. Significant differences among staff members in training and expertise are another potential source of frustration and conflict which can put an additional burden on the intercultural team (see section 5 for more details).

A thorough acquaintance with immersion principles is important for a smooth and successful operation of the programme. Knowledge in the field of second language acquisition is recommendable, but it is not a vital criterion to begin a position in a bilingual preschool. Further on the job-training should be provided from the very beginning. Contacts with local academic institutions (see section 9) for mentoring and training may be helpful in this respect. This volume of the ELIAS publication and extensive

training materials on the ELIAS website (www.elias.bilikita.org) also provide helpful introductions to, and background information and training materials on various topics related to bilingual preschool education.

All these issues call for a thorough selection process of new staff members. In view of the long time required for the recognition of foreign diplomas and degrees, job announcements should be published far ahead of time. They should include the precise name and description of the required training background. The job interviews should preferably be carried out by a team of staff members and external advisors who are able to evaluate the training, the educational qualification, the experience and the language level of the applicants. For obvious reasons, teaching experience in preschools is an important prerequisite in any application. If applicants do not have any prior experience, a careful selection process becomes even more important. However, many applicants come from abroad and can thus not easily be invited for a personal interview. In this case, video technology has proved to be a very helpful tool. Interviews can be set up via skype. In addition to the usual applications materials, preschools may ask (or require) their applicants to submit a teaching video in which the teacher has an opportunity to present her- or himself in the daily work with children. If interviews take place in preschool, it is helpful to let the applicant take part in the preschool routine. Our experience has shown that such measures are very effective for gaining a more complete picture of the applicants and their respective qualifications.

5. Working in a bilingual preschool

Additional costs

First of all, employing the bilingual principle of the person-language bond is not necessarily more expensive than a traditional preschool programme. Therefore, a bilingual preschool may get by with just the same amount of staff costs as a monolingual one. Experience has shown, however, that bilingual preschools are often interested in employing additional staff for their language programme, or need to bridge a gap between two employments of native speakers with creative solutions, such as bringing in external help for a limited period of time. This creates additional costs for which financial resources should be set aside. While a preschool's non-written materials are usable in a broad range of activities in both languages, there may be a need to purchase instructional materials that can be used in culture-specific teaching situations as well as materials for initial literacy training in the context of L2 activities (see below). Some of these materials are commercially available, others will have to be created by the preschool teachers from scratch (see Tiefenthal et al., this volume). This is an activity which, apart from background knowledge and creativity on the part of the teacher, requires time slots in which such preparations can take place. The L2 teacher's job specifications should therefore explicitly allow for hours spent in the creation of learning materials and count them as working time. In our experience, neglecting to set aside an

adequate amount of preparation time leads to feelings of frustration and overwork which may, in the worst case, push teachers to resign.

Formation of the team

A. Work load and initial help: Teachers in bilingual preschools need to have a high level of enthusiasm and a willingness to put in extra hours, at least at the beginning of the programme. Usually, the first year on the new job is filled with a variety of challenges. Not only do L2 teachers have to get acquainted with their new work environment and a programme of a very special nature, but their whole life has to be adjusted to a different country and a new culture. These professional and social adjustments, together with all the administrative rules and regulations imposed on foreign employees, are time-consuming in themselves. The first year is also a very labour-intensive time on the job because instructional materials have to be adapted or created for the immersion context.

To help native speakers overcome these obstacles and to provide support for a successful transition into the new job and culture, guidance from the employer is indispensable. Newly arrived teachers experience the language barrier often as the greatest obstacle as they become involved in the administrative processes that invariably mark their initial weeks and sometimes months in the new country. Legal language and technical terms may render it virtually impossible for non-native speakers to manage their affairs on their own. This may understandably lead to feelings of helplessness, insecurity and dissatisfaction. It is also often paired with a sense of embarrassment arising from a constant need of having to ask for assistance. It is easy to see that such moments of frustration are annoying for the person concerned and may also affect the entire team. To avoid such irritations, the preschool should plan ahead of time and provide help on how to procure visas and work permits, and on how to deal with the essentials of everyday life, such as health insurance, apartment contracts, communication equipment (telephone, internet), and the like. Providing sufficient background information, practical advice and help in these instances will help minimise the negative effects that such time-consuming and often baffling tasks can have on a newcomer. Since the colleagues at the preschool are usually the first contact persons the new staff member can turn to, they need to be aware of these initial difficulties, and to understand that the process of acclimatisation, during which all team members have to adjust to each other, tends to last about an entire year.

B. Working in an international team: Apart from this transition time, cultural differences may manifest themselves visibly in others aspects of the daily work. These may concern educational approaches (e.g. teacher-centred vs. learner-centred activities, guided activities vs. free play), different ideas of discipline (e.g. which ways of sanctioning a child are appropriate or acceptable in the preschool, what rules have to be followed, etc.), or different styles of communication (what is considered polite, how to phrase criticism or a deviant opinion without hurting the other person, etc.). This latter

issue, in combination with the limited language competence in the other language, may result in unclear role distributions and problems in the organisational process. A very practical example recorded by a participant observer in one of the ELIAS preschools may serve as an illustration (observed during the first four months with a new team):

> **Quote 4:** As I am one of the few people at the preschool who are able to speak both the L1 and the L2, both [L1] and L2 teachers turn to me to discuss team issues with me. The [L1] teachers repeatedly expressed their frustration that the native speakers did not take over equal responsibility for their groups. The [L1 teachers] felt that, although they were willing to share the tasks and decisions with the native speakers, and although they frequently invited them to take part in that process, the native speakers remained too passive and had to be specifically asked to take action. On the other hand, the native speakers told me that they tried very hard to find their way into the team and into their roles within it, but that they considered the [L1 teachers] the hosts in the preschool and that, to their understanding, it would be extremely rude to jump in and impose their ideas or actions on the preschool programme without being asked to do so. In other words, as far as I understand it, what was regarded as an irresponsible neglect with regard to the role as a group leader by the L1 teachers, was regarded as a natural form of politeness from the point of view of the L2 teachers. (ELIAS Participant Observer)

Three months after this incident, an L2 teacher from the same team, commenting on the situation, identified language and communication issues as the core of this problem:

> **Quote 5:** My role within the team feels unclear. I was told at the beginning to take charge and be the leader and the boss of one of the houses at the kindergarten, but so many of the important things going on were conducted in [the L1] that it became silly to pretend that I was in charge when I didn't have the complete picture of what was going on. Now that I am working alone in the house, I guess my role is clearer, but still a little foggy because I don't know what sorts of things I am allowed to make decisions about and which I am supposed to ask my boss about. (L2 teacher)

It is important to keep in mind that one and the same situation might be interpreted very differently if seen from the perspective of different cultural background and on the basis of a different set of experiences, as the next quote from the survey illustrates. At the time of the survey, some of the L1 staff had the impression that the native speakers "fenced themselves off" from the rest of the team, and expressed their regret about that. They felt that they had given them more advice and practical help than they themselves had ever received in their own sojourns abroad. However, the same situation is interpreted in the opposite way by one of the native speakers at the same point in time. This vividly illustrates how the feeling of frustration about how an individual's own position is not understood is shared by *both* sides:

> **Quote 6:** I really feel that [we] the foreigners have tried very hard to work within the new cultural expectations, to conform to the cultural and educational expectations, and yet I feel this is not reciprocated in the same manner. I would like to see all members of the team create an intercultural atmosphere instead of only the foreigners conforming to [L1] regulations. (L2 teacher)

Fortunately for all parties concerned, these initial difficulties were overcome in the course of time. At the end of the project, several team members explicitly pointed out that they were grateful for the experience and proud to be a part of the team. One crucial factor, even at this early stage in the process, was that all team members were

highly motivated to integrate themselves into the newly formed group. This is a prime example of the effect that positive attitudes have on group formation. As a matter of fact, such processes are well-known in the formation of teams:

> [Intercultural] Teams are unlikely to show peak performance from the moment of their conception. Instead, they require time for team members to come together, get to know each other and begin discovering mutual orientation and a shared normative idea about how the team is to proceed ... Traditional models of team development, such as Tuckman's (1965) model, have already dealt with this issue, in which the "performing phase" is not reached until the prerequisite phases in the team process, namely the "forming", "storming" and "norming", have been completed. The more culturally diverse the team is, including the respective members' abilities and their disparate ideas of "norming", the more important it is to allow enough time for the "forming" stage. It is unrealistic to expect peak performance from intercultural teams from the very beginning. These teams require more time for interacting and finding their own [sic.] within the team and might, as a result, find more difficulties in getting the team up and running. This is especially true when tasks require close collaboration among members. (Stumpf 2010: 307)

Understanding the basic principles behind these processes and allowing enough time for them to develop according to their own dynamics is thus vital to overcome the "storming" phase in order to reach a phase of fruitful "performance." The following quote shows how easily this point can be missed when expectations – towards oneself as well as towards others – are high, but the forming and storming, though unrecognised, are still going on:

> **Quote 7:** I will not blame any misunderstanding or problems to "language" or "intercultural" issues because 6 months is long enough for us to learn to work around them. It's a matter of accepting other ways of doing things and working together as a team. We all have our various backgrounds, experiences and talents which can be put together to form a great team but up to now it's just everyone doing their own individual thing. (L2 teacher)

Recognising the current stage in the team formation process is one important step towards a successful development. Other helpful attitudes are described by an L1 teacher in the same survey, who concludes that it is important:

> **Quote 8:** … to feel enriched by the diversity of the people who surround you, and to offer your own skills to support them. In this way, a team of L1 and L2 speakers can become an asset for everyone. This is the significance and the goal of good team work, especially in an intercultural team. (L1 teacher, translated by the authors)

Regular quality exchange

Becoming a mutually supportive team means that members understand and support the idea of bilingual education and that each of them plays an important role in the process of striving for this goal. Regular opportunities for an exchange of observations and ideas, for discussion and improvement – meetings which we have called "quality circles" – have proved valuable for the progress of team formation and the actual work process. Meetings that provide room for such activities should take place on a regular basis, e.g. once a week, and should be integrated in the preschool routine. They can be used to discuss issues of the bilingual preschool programme, the educational concept, the children's development, practical problems, and as training sessions for new staff

members who need to be introduced to the special programme of the preschool. Simultaneously, sessions like these offer opportunities to invite external advisors for training in different background areas (see section 9 below).

6. L2 teaching principles

Using a foreign language as a means of communication with young children throughout an entire day presents a special challenge to the teachers. The chapter by Kersten et al. in this volume gives a comprehensive overview of practical guidelines for teachers' language input (see also Kersten & Rohde in prep.). Therefore, this section will limit itself to highlighting the most important principles.

It is of vital importance that the L2 teachers use the L2 continually in contact with the children. If possible, this behaviour should be extended to parents and colleagues; here, however, the above-mentioned restrictions apply: it is more important to ensure successful communication among the team members and with the parents than to adhere dogmatically to this rule. Yet, observations from the ELIAS preschools have shown that children react positively to the L2 and produce more output in the L2 themselves if they cannot be sure that every L1 utterance will be understood. The need for active negotiation of meaning (e.g. Long 1981, 1996, Swain 1985) is higher the more consequently the L2 is used. However, even if different rules are applied in interactions with parents and colleagues, the L2 should be used with the children at all times. The tendency to take recourse to the children's L1 in, for example, emergency or discipline situations, runs the risk of reducing the authority of utterances in the L2. If all-important information is conveyed in the first language, children might feel less obliged to pay attention to L2 information in the same way.

Language is used as a means of communication, which implies two things: firstly, children have to be able to deduce the meaning of each situation and the reason for each activity from the context, i.e. from other information which the teacher has to provide in addition to the language; and secondly, by understanding the context and the meaning of the activity, the children are enabled to understand the language, and are thus able to gradually build up the language system of the L2 by themselves. For the teacher, this means that she needs to contextualise her language on different information channels, auditory and visual, so as to provide multi-sensory learning opportunities for the children. The following principles for the L2 language use by teachers are particularly important:

- to provide rich input, and to constantly accompany every action with language
- to offer a wide variety of meaningful activities for children using a wide variety of language, not merely games and activities which involves imitation
- to use a hands-on approach in which children can "handle" objects as well as language for themselves

- to use gestures, mime and body language
- to use a variety of different materials and visual aids, such as pictures, flash cards, books, videos and, above all, authentic objects
- to create scaffolds of daily routines with recurring phrases which are easy to remember and which help the children understand the structure of the day
- to foster the children's L2 output by encouraging and praising them; but not to put pressure on them and never to force them to use the L2
- to use the children's L1 and L2 utterances, recast them in the correct form and expand on them using frequent repetitions, paraphrases, expansions; give frequent explanations
- you may focus on the language itself, and this might even be helpful to highlight some differences between the L1 and the L2, but if you do so, make sure that your activity is authentic and does not lapse into a simple language drill

Using the L2 as a vehicle of communication also means that the children's content learning of various topics offered at the preschool will take place in the L2. The zoo preschool in Magdeburg, Germany, one of the ELIAS preschools, located on the premises of Magdeburg's Zoological Garden, is a vivid example of how the topic of bilingual environmental education or *green immersion*, a term coined by the ELIAS team, can be conveyed in the second language.

> The impression which the environment exerts is especially great for young children at preschool and primary school age. Therefore, we expect that their natural interest and enthusiasm today will turn them into convinced – and convincing – environmentalists tomorrow. (Kersten & Perret 2008: 5, translation by the authors)

Green immersion means that nature-related themes such as animals, plants, ecology, conservation and so on, are introduced in a hands-on approach in the second language. In immersion schools, it is a well-known fact that such content learning in the immersion context works very well: If the immersion principles are implemented, i.e. if the programme guarantees intensive and long exposure to the L2 in at least 50% of the curriculum over an extended period of time, and if immersion teaching principles are observed, content learning in school does not suffer. The observational study in the ELIAS zoo preschool reveals for the first time that content learning is also possible and very successful at a much earlier age as has previously been shown. As Shannon Thomas, zoo educator and researcher in the Magdeburg ELIAS team, describes in her contributions in the first and second volume of this publication, the children in her groups were able to experience, explore, and learn a wide variety of facts about nature topics. Some of the older children even reached the stage of "action competence," the highest level in a developmental model on green immersion (see Thomas et al., volume I, and Steinlen et al., volume II), provided that immersion teaching principles were competently used in the encounters with biological facts and phenomena.

Further explanations and sources for these principles may be found in the chapters by Kersten et al. in this volume, and in the L2 teachers' input analysis by Weitz et al. in volume I. It is recommendable to organise a teacher training, preferably by involving external experts, at an early time after a new teacher has started in a bilingual programme. As one of the ELIAS observers remarked:

> As mentioned before, a teacher training for bilingual education – either incorporated in the existing teacher trainings or as a separate post-graduate training would be advisable, so that teachers are not left to their own devices. Right now there is a lot of frustration among the teachers because they have to discover the best teaching procedures all by themselves, and they do not know whether they are doing a good job. (ELIAS participant observer)

7. Role of the parents

The attitude shown by parents has an important effect on their children's learning progress.[11] For the school context, for example, many studies have demonstrated an intimate relationship between parental expectations and the actual academic achievements of their children (e.g. Eccles et al. 1983, McGrath & Repetti 2000). For the preschool context, it is likewise known that children unconsciously conform to their parents' attitudes and that a positive parental attitude positively affects the language learning progress (see e.g. Mushi 2000, Lopez 2005). For foreign language learning, the results from Canadian research clearly show that children are successful in early immersion programs when their parents are enthusiastic about immersion and believe in the programme, when they work together with the preschool teachers, when they take an interest in what the child tells them about the programme, and when they take part in preschool activities (e.g. Fortune & Tedick 2003). At home, parents are advised to (verbally) interact with their children in the mother tongue, and to read to their children in the mother tongue on a regular basis because numerous studies have shown that reading activities at home are an important predictor for later academic success in school (e.g. Fan & Chen 2002, Flouri & Buchanan 2004). Since the preschool provides a lot of input in the L2, the role of the parents as role models for the L1, which needs to be fostered at home, is all the more important. Practical experience in bilingual preschools has shown that it is not necessary for parents to drill the L2 at home. Parents may encourage their children to use the L2, but should not make them produce the L2 for friends or family members if the child does not want to (e.g. Schilk et al. in prep.).

For parents who are not familiar with the bilingual programme, it is recommendable to provide information at the moment when they come to enrol a child, and in the course of the school year, on how bilingual education works, what they can reasonably expect with regard to the children's progress in L2 acquisition, and assure them that the L1 and academic development are not negatively affected by bilingual learning. Observ-

11 This paragraph is taken from the guidelines to language input in bilingual preschools (Kersten et al., this volume), and is reprinted here for the convenience of the reader.

ers' experience has shown that parents who are not initially advised about bilingual education

> expect their child to be bilingual within a year or three, fear that the L1 and academic abilities will be [negatively] affected, and ask the L2 teachers to translate to the L1 during the L2 classes etc. [Therefore, it is important to] avoid that the[se] typical fears and prejudices live among the parents. (ELIAS participant observer)

8. Programme continuation after preschool

In an ideal constellation for bilingual learning, a preschool's bilingual programme is continued in an immersion primary school, in which 50% or more of the curriculum is taught in the L2 by bilingual teachers. However, this is often not the case, especially if the preschool has just been implemented. Usually, both parents and the preschool teams begin to ask for a programme continuation when the first group of children in the programme reaches school age. As the setup of a bilingual primary programme takes time, this first group of children often does come to enjoy the benefits of a direct continuation. In that case, parents either opt for the traditional school system, in which the L2 might be introduced at a later stage and in a less intensive form, or they look for other specialised programmes.

To remedy this situation, it is recommendable to contact local primary and secondary schools as early as possible to discuss options for an introduction of special programmes aimed at bilingual children. These children will be part of the primary system at some specific point in the future, after all, and their special abilities will influence the teaching and learning process in their future classes. Schools should be aware of the fact that the children's abilities need to be fostered, and that they differ hugely from their monolingual peers in language classes. These differences need to be addressed and taken care of. Local primary schools are well advised to regard the presence of bilingual children in their classrooms as an asset and a valuable opportunity for everyone to benefit from the specific skills these young learners bring to their new institution.

It is our experience that it is helpful if both primary and secondary schools are introduced to the bilingual preschool. This constitutes an important prerequisite for the institutions to appreciate the impressive language competence of the young children and may thus confirm their belief in the immersion approach to language learning, or actually lead them to introduce such a programme. Teachers may be invited to spend time in the preschool, groups of children may visit language classes in primary school, and teacher-parent meetings or other events may be used to distribute relevant information to interested parties. Parent initiatives coming from the preschool's parents are an important asset as well. At any rate, there is much to be gained if an intensive exchange between the different institutions is established and sustained. Schools might be reminded that a special programme such as language immersion contributes to their profile and reputation, and that it will be beneficial not only to the children from a specific

bilingual preschool, but for their monolingual classmates as well: they will profit both from the immersion programme and from the language competence which their bilingual classmates already possess. Under such circumstances it will only take a relatively short time until they catch up with their peers (see Wode, this volume, and the guidelines for the implementation of bilingual primary school, Kersten et al. 2010).

Ideally, schools with a bilingual follow-up programme should be located in close proximity to the bilingual preschool. This would facilitate an intensive exchange and allow children to remain in their own neighbourhood when they take the next step in the school system.

9. Academic monitoring and cooperation

Just as cooperation between preschools and schools yields positive results for all parties involved, a close connection between preschools and academic institutions has proved to be useful for both partners. Academic experts with their theoretical knowledge in the field of L2 learning and other areas of expertise have the potential to support bilingual preschools in several respects. Researchers are knowledgeable about research studies, practical experiences and best practices in the field of bilingual learning world-wide. They can thus provide academic monitoring with valuable background information and advice on areas such as conceptual planning, teaching principles, intercultural communication and young children's (language) development. They might also be willing to take an active part in teacher training programmes and in supplying parents with useful information, and may thus provide a sound academic basis for the programme. All of these factors contribute to a preschool's good reputation and may strengthen parents' faith in the preschool and its conceptual design.

Researchers, for their part, might welcome an opportunity to conduct language assessment in bilingual preschools as part of their own research interests. If both institutions are able to finance participant observation on a regular basis (a model which has been followed with great success in all ELIAS preschools) they establish a regular exchange and profit from the fact that outside observers gain an insider's perspective on preschool routines. In this way, preschools are able to provide important practical insights, an element that is often neglected in a traditional research setup. In the overall perspective, a more intensive exchange between researchers and practitioners will result in mutual benefits, and in the continued improvement of the immersion concept for preschools.

Collaboration with partner institutions that pursue educational goals but are not connected to the education system in the narrow sense (e.g. museums, zoos, aquaria) may provide preschools with direct and intensive experiences that normally lie beyond their reach. In collaboration with the L2 teachers, these contents can be made available to the children in both languages.

Finally, cooperation with local businesses and companies as well as with inter-/national associations have an inherent potential providing additional resources. Sponsors might be willing to contribute to the programme, give practical help or seek out specific offers for their own employees, which the preschool might be able to provide. National and international funding programmes, on the other hand, can be tapped for the financing of specific projects or the recruitment of language assistants. Here, collaboration with academic research institutions might also come in useful to broaden the range of available resources. It should be pointed out, however, that the identification of funding programmes and the ensuing application process requires a substantial amount of additional time and resources. Any attempt to obtain grant money will lead to a significant drain on the time usually spent on the management of the applying organisation.

10. Suitability of the bilingual programme for children

Making decisions about how to direct a child's education is not always easy. Since parents do not want to expose their children's intellectual development to unnecessary risks, it is understandable that they want to know whether immersive learning is suitable for all children. This often results in questions of whether children with special characteristics benefit from immersion programmes: those who appear to be particularly gifted, slow learners, children with learning impairments, or children with a migrant background. As is often the case, there is no single, clear-cut answer. Since the factors involved in each case tend to vary widely, only a close look at the individual circumstances and the specific prevailing conditions in the families and at the schools will provide useful clues for making the best decision for the given situation. The following paragraphs are adapted from our guidelines for immersion in primary schools (Kersten et al. 2010), but the findings can be applied to the preschool context as well.

Research studies conducted in North America have repeatedly shown that a successful participation in immersion programmes does not depend on what might be seen as a child's academic aptitude. Even supposedly weaker pupils benefit from immersion teaching. They also acquire a comparably good foreign language competence in addition to knowledge in the respective subjects. They are not disadvantaged and achieve the same level of competence as they would in monolingual lessons, provided they get the same level of support as in monolingual lessons (Bruck 1982, 1984, Holobow et al. 1987, 1991).[12] Researchers in the USA investigated whether children who changed from immersion programmes to monolingual programmes would improve their

12 A comprehensive list of references for the topic "Language Immersion and the Underperforming Learner" can be found on the website:
www.carla.umn.edu/immersion/bibliographies/ul.html

achievements. This was not found to be the case and the results from a similar study conducted in a German context at the Claus-Rixen-School[13] support these findings.

Up to now, there are no confirmed results regarding the effects of dyslexia on immersive learning. Due to the lack of hard data, some schools choose to stay on the safe side and advise parents not to enrol children with severe dyslexia in immersion programmes in order to prevent an aggravation of potential difficulties. At the Claus-Rixen-School Altenholz, it has been observed that children's dyslexia only became apparent during primary school and that the problems due to the dyslexia were not very severe. Immersion teaching had no additional negative effects in such cases. In addition, these children were found to have much better foreign language skills compared to their peers who attended monolingual classes. As dyslexia often is not yet diagnosed when a child starts school, there are no guidelines for schools to follow. In preschools, dyslexia seems to be even less problematic for children as most of the language input is based on oral communication.

Especially in areas with a substantial migrant population, parents enquire whether immersion teaching is also suitable for children from migrant families or for families who are multilingual (Piske 2007). For these children, the foreign language would be the third or even fourth language the children are exposed to. For bilingual children who start learning English as a third language when attending a bilingual preschool and an immersion school, no problems are expected, provided that both native languages are well developed. It is important in such cases that the home languages and any other languages are well supported. Children from multilingual families should use the ambient majority language as well as the native or family language/s as often as possible and in as many situations as possible. International research has shown that especially those children stand to benefit from immersion teaching who are certain to develop both their first language and possible other languages at an age-appropriate level (Wode 1995). The children should also learn to write in their native language. However, given the legal regulations in many European countries, the conditions are such that this can – apart from a few notable exceptions – rarely happen in the current education systems.

In this context it is also worth remembering that, at the beginning of an immersion programme, all children are in the same situation because the foreign language is new to all of them. As immersion teaching strongly relies on visual input, all children, regardless of their individual characteristics, have a very good chance to learn the foreign language successfully.

13 The Claus-Rixen-Schule is an immersion primary school which offers a follow-up programme to two ELIAS preschools in Kiel, Germany. It includes 70% of English immersion teaching in their curriculum (see Wode 2009 and this volume, for more information on the programme and research results from this school).

11. Further issues and recommendations

Contrary to what opponents might claim, immersion is not a programme designed for a social elite. In view of the many positive effects that issue from language immersion, we are convinced that it should be made available to all children. Unfortunately, a number of obstacles – some of them financial and political – stand in the way of a more widespread adoption of the immersion principle. Often, bilingual preschools do not receive sufficient support from administrators and policy makers because they consider immersion as an "exotic" programme. To spread the benefits of bilingual education beyond a segment of the population, ministries of education and policy makers must remedy the current situation and advocate a wider distribution of bilingual institutions in their various states. To exploit the advantages of bilingual education in the best possible way, they should also create an appropriate infrastructure for a seamless continuation from pre-primary to secondary education.

One of the important prerequisites for a widespread implementation of immersion programmes is the ability of institutions to attract native speakers of the respective languages. This can only be achieved if the validation and recognition processes for foreign degrees and certificates is facilitated and adjusted to the needs and realities of schools and preschools. It has been our experience that, up to the present time, the long, inflexible and overly bureaucratic recognition process for immersion teachers presents a major obstacle for many bilingual preschools across Europe. It is similarly important to make sure that immersion teachers, who tend to be very talented, qualified and highly motivated individuals, receive adequate credit for the important work that they do – both with regard to their social recognition as well as regarding the monetary remuneration they deserve. Thus we urgently recommend the creation of a set of European standards for the job profile of an immersion teacher (after all, the EU actively sponsors and promotes multilingualism in its member states), as well as an initiative to standardise teacher training for positions in bilingual preschools and, above all, a simplification of the recognition process for foreign teacher training certificates across Europe.

At the same time, it is important to make sure that bilingual preschool programmes meet certain quality standards. Based on the research studies quoted above and on the findings of the ELIAS project, we suggest that criteria for immersion programmes should be evaluated according to factors such as the duration of the L2 contact over several years, its intensity (at least 50% of the provided language input), a high language proficiency of the L2 teachers in the target language, and the competent use of appropriate teaching principles as exemplified above (cf. in Kersten et al., this volume). These criteria are discussed in detail in the various chapters of this book.

We propose this set of criteria for language immersion as a solid base for discussions to be held in the context of politically relevant processes and decisions on bilingual education (cf. Council of Europe 2006). Bilingual approaches differ widely across

Europe and world wide (Met & Lorenz 1997, Swain & Johnson 1997, Walker & Tedick 2000), and while results on content and language learning have been highly positive in the evaluation of immersion programmes, it is at this point still difficult to make substantial statements about the effectiveness of other approaches with less intensive L2 input. The term "immersion," however, seems to be increasingly used as an umbrella term for a wide variety of different bilingual programmes, many of which do not rigorously apply the criteria mentioned above. It is important to realize that the positive results pertain only to immersion programmes which do meet these criteria. Political decision makers should be aware of the fact that programmes which do not adhere to the principles outlined above are likely to produce different, possibly less successful, results, and that perceived problems of bilingual approaches may in fact not be caused by the immersion concept as such, but by a less rigorous application of the immersion principles. We thus recommend the usage of the term "immersion" as a clearly defined concept as outlined above and the establishment of corresponding standards and training profiles which should be based on research results and best practices from efficient and well established bilingual programmes, such as the ones presented in the chapters of this book.

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Guidelines for Language Use in Bilingual Preschools

Kristin Kersten, Anja K. Steinlen, Christine Tiefenthal, Insa Wippermann, Anna Flyman Mattsson

1. Introduction

Bilingual preschools function according to the one person-one language principle (Ronjat 1913, Baker 2000), according to which preschool teachers use two different languages with the children throughout the day: one teacher exclusively uses the ambient language (L1), the other one, preferably a native speaker, uses only the target foreign language (L2) in all interactions with the children. Foreign language learning in a bilingual preschool context requires specific skills especially from the preschool teachers who speak the L2, because the L2 is not taught formally, such as in a classroom context, but it is used as a medium of communication. In contrast to L2 teachers in school, whose challenge is to integrate language and content (e.g. Massler & Ioannou-Georgiou 2010), the challenge for preschool L2 teachers is to find ways and strategies to foster and stimulate children's development by using the L2 only. Furthermore, in contrast to L2 school teachers, L2 preschool teachers usually do not receive any kind of formal training in using a language which is not the ambient language outside preschool and may therefore wish to obtain further information as to how to convey an L2 in a preschool immersion context. So far, research on this topic has mainly focused on school immersion contexts and many articles and books on "best practice methods" in such a context are now available (e.g. Stevens 1983, Snow 1987, Swain 1988, Snow 1990, Peregoy 1991, Harley 1993, Burmeister 2006, Edelenbos & Kubanek 2009, Massler & Ioannou-Georgiou 2010). However, only little research has so far been carried out in a preschool immersion context and the findings on L2 preschool teachers' strategies are rather unstructured and impressionist in nature (e.g. Kubanek & Edelenbos 2004, Leidner 2005, Nauwerck 2005, Günther & Günther 2006; Steinlen 2008, Wode 2006, 2009, Schilk et al. i.pr.). The ELIAS study on L2 input (Weitz et al., volume I), however, has shown that best practices known from the early school context can indeed be transferred to the preschool context as well. The study showed that good principles of language use, previously known from school research, have a significant beneficial effect on children's grammar and vocabulary comprehension (Steinlen et al.; Rohde, volume I) in bilingual preschools. This is not surprising, as bilingual preschools follow an approach which is comparable in several ways to early immersion teaching in primary grades and follows its principles, sometimes, even more strictly (i.e. L2 as medium of communication, the person-language bond and high input intensity, among others).

This chapter therefore intends to provide guidelines for bilingual preschool teachers by combining research on school settings with principles that have successfully been used

in bilingual immersion preschools, complemented and adapted by principles which have been observed and tested in the two year study in nine bilingual ELIAS preschools (Weitz et al., volume I). In this context it is noteworthy that immersion is mostly considered as a language learning programme or an institutional setup, but not as a teaching method itself. It means that the foreign language is used for at least 50% of all language input as the language of communication from the part of the teachers. This way, children are surrounded by or "immersed in" the language in bilingual preschools to a great extent during the day, and learning happens in the most natural way possible.

2. Guidelines for L2 language use in bilingual preschools

The guidelines for language input which are introduced in the following section are based on the literature and on the experiences reported by the members of ELIAS (preschool teachers, observers, and scientists alike). All in all, six different principles will be presented which refer to L2 input quantity and quality, contextualisation, multisensory learning, interaction strategies, scaffolding, and parental involvement. This is, by no means, to be interpreted in such a way that there is no interconnection between these principles. On the contrary, they mutually influence each other and, therefore, enhance children's successful learning of the L2 in a bilingual preschool immersion context (Weitz et al., volume I).

The term "preschool teacher" is used throughout this chapter for the lack of a widely acknowledged term for preschool pedagogues. It is used with no implication whatsoever on the pedagogical approach of the institutions, but as a cover term for all pedagogical personnel who supply language input to preschoolers at the age of approximately 3;0-6;0 in bilingual preschools.

Guideline 1: The teacher uses the L2 in a way that the children receive rich and varied L2 input

Intensive input

The way the L2 is used in a preschool context critically affects the L2 learning progress of the children. As Weitz et al. (volume I) show, the quality and the quantity of the L2 input determine how well the children will master the L2 during their preschool period. The children need, for example, a great amount of L2 input to develop their L2 competencies and, therefore, the L2 teachers need to talk constantly to accompany each of their actions with language. Vice versa, even without action, they provide constant L2 input. That way, children receive manifold opportunities to combine the meaning of the new language with the actions they observe. Consequently, the L2 teacher needs to be an extrovert person (Edelenbos et al. 2006).

In fact, the preschool setting is advantageous for the L2 learning process because the children attend preschool for many hours a day, and are therefore exposed long enough to the L2 to receive a sort of "language shower," or "language bath," which is the well-known metaphor for "language immersion." English courses, which are often offered in (non-immersion) preschools on a weekly basis, do not reach such a level of intensity or linguistic richness. Once the L2 teacher starts to use the children's ambient language for reasons of simplicity, the amount of L1 input usually grows considerably in a very short time, at the cost of intensive L2 input (see e.g. Inbar-Lourie 2010 for a review on the use of the L1 and the L2 in a classroom school context).

Rich and varied lexical input

In terms of quality, the L2 teacher ideally uses lexically and structurally rich input (e.g. Snow 1990, Wode 2001, Nauwerck 2008, Steinlen 2008). Lexically rich input refers to the use of vocabulary, which not only comprises object words of the so-called basic level (e.g. 'dog,' 'cat,' 'chair,' 'table,' i.e. words which can be visualised as individual exemplars), but which stretches to more abstract, or superordinate, words such as 'pet' or 'furniture' as well (e.g. Rohde 2000, 2005). When children newly arrive at a bilingual preschool, they lack both the basic and the specialised L2 vocabulary. Therefore, the L2 teachers must emphasise vocabulary building so that the children are quickly able to follow the daily routines. To provide such lexically rich input, L2 teachers will not only use repetitions of recurring words and phrases, but also restatements, paraphrases and extensions of words and sentences (e.g. Snow 1990). A word can for example be explained by using synonyms ('hide – conceal'), antonyms ('good – bad,' 'hit – miss') or superordinates ('hammer – tool'). Category words such as 'fish' can be subdivided into 'trout' and 'salmon.' If the input is presented in such an intensive, natural and authentic way, it provides many possibilities to enrich the children's lexical (i.e. vocabulary) learning.

Rich and varied structural input

Apart from extended L2 vocabulary, children also need structurally varied input, which refers to the use of the different sentence structures. L2 teachers will, therefore, not only limit their input to main clauses (or short SVO sentences) but will also use subordinate clauses (e.g. relative clauses) or passive sentences where appropriate. The children can only learn the whole range of linguistic structures of a language (e.g. establishing its word order, distinguishing subjects from objects, learning about grammatical agreement) when these structures are presented in the input. Not presenting such a variety of structures would deprive the children of selecting and filtering the linguistic features from the L2 input. This is needed, however, in order to appropriately formulate hypotheses and rules about the use of these structures.

However, using varied input does not mean that the L2 input is not tailored for the needs of the children: A good L2 teacher uses repetition, paraphrase, restatement and synonyms to give the children many chances to understand the language, i.e. she in-

corporates redundancy into her speech (e.g. Snow 1989). Furthermore, in order to emphasise an utterance, she speaks more slowly at times. Although the L2 teacher does not translate the L2 into the L1, she translates the child's L1 utterance into the L2 and models, expands, paraphrases the children's L2 utterances (Tardif 1994). In other words, she takes up the child's utterance and provides a correct and extended model. Finally, the L2 teacher encourages the children to sing along, to use the L2, never forces them to use the L2 or to participate in activities carried out in the new language.

Guideline 2: The teacher needs to *contextualise* the L2

When children encounter the L2 as a commentary of every activity in the classroom, they do not understand every single word of this continual input due to their limited L2 proficiency. This experience is natural for children in the acquisition of their L1; thus, they are usually much more capable and willing to cope with it than adults. But the children have to be able to make sense of this stream of L2 utterances in order to build up linguistic competence from the limited L2 input (Kersten & Rohde forthc.). In principle, the young learners do not have to understand exactly what the L2 teachers say – they have to understand what they mean. Understanding the situation, knowing what is going on in the group, is especially important for young children as it guarantees their feeling of safety within the bilingual preschool context. Strategies for teachers to support children in this process include the use of visual and aural cues such as pictures, picture stories, CDs, videos, as well as the use of objects and other hands-on materials. The teacher can also support understanding via verbal means such as "reference language": so-called deictic terms (e.g. *here, there, come, go, I, you*, etc.), or "ear catchers" such as "Oh, look at this!"

Furthermore, teachers use body language such as pointing, gestures, facial expressions, and pantomime to underline the meaning of what they say (Snow 1990). Such strategies help identify the object or activity that is focused on, and help the children establish the connection between the content and its meaning. Language input, which would otherwise remain meaningless for the children, receives a context and meaning through such non-verbal strategies. They are especially helpful at the beginning of the children's learning process. Ideally, the contextualisation strategies mentioned above enable the child to understand a situation without having to rely on language at all. The child makes sense of the situation by relying entirely on the non-verbal contextualisation of the situation, much like watching an old-fashioned silent movie ("silent movie technique," see Burmeister 2010). Let us take a very simple example: The child may infer the meaning of the word 'shoe' (due to inherent lexical strategies, see Rohde 2005) because the teacher points to the object and utters the word 'shoe' at the same time.

With increasing language competence of the children, the use of contextualisation strategies usually decreases. At the beginning of L2 contact, e.g. when a child newly

arrives at a preschool or when a bilingual preschool is newly established, L2 teachers will employ many different kinds of contextualisation features. At the end of the children's preschool period, fewer gestures and other non-verbal means are necessary to help the children understand the daily routines and topics in preschool life. This may change in primary school, when new unknown content matter is introduced in the various subjects. However, it is, of course, important to tailor the contextual aids to the children's immediate needs and therefore vary the input strategies from child to child.

Guideline 3: The teacher adapts *speech patterns* for the benefit of the child's understanding

Another strategy is helpful to better understand words and phrases, and to single them out from the continuous flow of input: especially when talking to beginning learners, teachers will adapt their speed and intonation of speech to a slower rate and a clearer pronunciation as in adult speech. They will use a stronger stress on single words, they will alter their intonation and sometimes use a higher pitch. When they adapt language in such a way, the children have a better chance of understanding word and phrase boundaries, and they can map single words onto their respective meanings more easily (Kersten & Rohde forthc.).

Similar features of adapted speech can be observed in the mother tongue, in the speech that mothers or caretakers use to address little children to foster their L1 acquisition. This phenomenon has become known as *motherese* (Ingram 1989). The use of motherese seems well suitable for very young children in preschools. However, not all features of motherese work well with older learners. Adults may often use a somewhat exaggeratedly high pitch with babies or toddlers, but this may seem out of place when addressing older children. When children become more proficient in the L2, teachers usually reduce the amount of motherese or adapted speech with the children.

Guideline 4: The teacher creates an environment which promotes multi-sensory learning

In order to meet the different needs of the several learning types and support substantial learning, various channels need to be engaged in the learning process. This is called "multi-sensory learning" and is defined as "using visual, auditory and kinaesthetic modalities, sometimes at the same time" (International Dyslexia Association 2009). Recent research has shown that the various senses do not only work in isolation but also in connection with each other. Driver & Noesselt (2008) show the impact of multi-sensory brain regions that receive input from more than one sense, yet also influence specific sensory areas. But even though the effects of multi-sensory learning and stimuli on the brain need to be investigated in future research, the findings still indicate the importance of learning with different senses.

What do these results mean for the preschool context? It is of special importance in a bilingual preschool to create an environment which promotes multi-sensory learning (e.g. Stevens 1983, Snow 1990). To reach this goal, the children's learning experience takes place in a genuine context (Cameron 2001, Dunn 1983, Lorenz & Met 1989) with authentic materials (Edelenbos et al. 2006). Such a context is given when the focus of the activity is placed on the meaning rather than on the form of the language used in the interaction, as in *task-based activities* (Ellis 2003, Nunan 2004). Such activities consist of meaningful tasks, which are themselves based on meaningful content, and the language is not in the focus of the attention but is used as a means of communication instead.

For example, children like do to "research" on their own, especially in the field of science, where different kinds of *hands-on activities* can be used. *Learning Centres* (i.e. educational facilities designed for children's learning that is at least partially, if not fully self-directed) with interesting experiments have been proven to be very useful and fun. Here, the children can demonstrate – verbally and also non-verbally – that they have understood the concepts. Such activities help the children to relate action and language in a more intensive way.

Children will further gain a deeper understanding of the topic (and the L2 input) if it recurs in other activities, like songs, role plays, experiments or other authentic situations. The key for the children to quickly understand the contents of a situation is to "recycle" the foreign language in many different ways. When children engage in multi-sensory learning, positive feedback by the teacher (both verbally and nonverbally) at all times helps the children to feel safe in the foreign language environment.

Guideline 5: The teacher provides the children with ample opportunity to interact verbally and to express themselves (verbally and non-verbally)

Even with all the helpful strategies quoted above, input by the L2 teacher alone does not suffice to foster the children's language production. This has been shown repeatedly in research studies (e.g. Cameron 2001). It is a well-known phenomenon that children understand language to a wider extent than they are able to produce it (e.g. Edelenbos et al. 2006). For children's successful foreign language learning three components – input, interaction and output – are important. Long (1996, 2007) showed that verbal interaction between child and adult facilitates the learning process. This strategy is called *negotiation of meaning.* In negotiating the meaning of certain L2 utterances, the children encounter many different elements of the L2, on which they focus, and which they either learn to accept or to reject through the intensive exchange with the teacher. This kind of interaction of negotiation can also foster vocabulary learning, and it helps the children develop different communicative strategies (Gass 2003, Mitchell & Myles 2004).

If the preschool teacher creates manifold opportunities for interaction in the L2 – even if the child answers in the L1 – she provides many chances for the children to produce language themselves, and for further opportunities to negotiate meaning. The teacher therefore has to create situations in which this kind of interaction can take place. Very soon, the children will learn strategies to make themselves understood and to get their message across. The good news for preschools is that, in contrast to the school context, input, interaction and output in a bilingual preschool context do not have to be arranged artificially; they are naturally given through the routines of the preschool (Kersten & Rohde forthc.).

Opportunities for interaction have been measured in the ELIAS preschools in terms of "encouragement and maintenance of L2 output," that is, to what amount the teachers encourage the children to speak the L2, and to what amount they try to maintain the L2 the children already use. Explicit encouragement would include, for example, a situation in which children tell about their weekends, and the L2 teacher says: "You guys have to speak English to me. I know you can." An instance of implicit encouragement was observed in a morning circle in which the teacher discussed washing hands with the children: She started a sentence with a well-known phrase ("washing your hands") in the L2 and went on saying, "But first of all we …." At this point, she stopped talking and instead mimed the action of pulling up her sleeves – in this way, she encouraged the children to fill in the gap and complete the phrase in the L2.[1]

Guideline 6: The teacher provides scaffolds to support the children's learning

Scaffolding techniques, which help the children recognise certain patterns in their daily routines and in the language input, have long been regarded a very helpful strategy for children's L2 learning (Snow 1990, Peregoy 1991). Massler & Ioannou-Georgiou (2010) divide scaffolding techniques into verbal and content scaffolding. With verbal scaffolding they mean that the teachers should provide input which is at an appropriate level, which is redundant (by the use of repetitions and paraphrasing for instance) and which is correct. Regarding output, they need to ensure that the children have enough time to respond, that they are allowed to code-switch and are offered supportive error correction. Content scaffolding, according to Massler & Ioannou-Georgiou (2010), includes reference to previous knowledge by, e.g., using visualisation techniques, giving feedback and key content concepts, and by allowing students to discuss concepts in their mother tongue (p. 62-63). These are all techniques that can perfectly well be used in a preschool context.

An additional type of scaffolds that might be particularly important in preschool are organisational scaffolds. A daily schedule which remains the same every day, recurring social patterns and activities, and reliable routines serve as scaffolds and, at the same time, as "safety nets" for the children, who understand the structure of the daily

1 We are grateful to Martina Weitz for these examples from her observation data base.

routines with the help of these signs. They do not only, however, serve as organisational scaffolds but, when expressed verbally, also as language scaffolds, and therefore enable the children to become attuned to the foreign language (Snow 1990, Peregoy 1991). Organisational scaffolds include daily routines, e.g. determining today's weather, tidy-up-time, and morning circle; bells, pictures and symbols that also serve as additional signals.

The teacher will accompany recurring daily routine situations (e.g. morning circle, or the beginning or the end of meals) with the same utterances. The children will quickly understand these formulaic expressions or routine phrases (even if they do not necessarily understand the full literal meaning at the beginning) because they occur frequently in the input, and because they are contextualised in such a way that the children can infer the meaning from the situation (Weber & Tardif 1991). Additionally, songs and rhymes are often used as language scaffolds because most children love to sing along, to imitate and to play with language.

Guideline 7: "Golden Rules" for parents, which allow children a successful early immersion experience

The attitude shown by parents has an important effect on their children's learning progress. For the school context, for example, many studies have demonstrated an intimate relationship between parental expectations and the actual academic achievements of their children (e.g. Eccles et al. 1983, McGrath & Repetti 2000). For the preschool context, it is likewise known that children unconsciously conform to their parents' attitudes and that a positive parental attitude positively affects the (language) learning progress (see e.g. Mushi 2000, López 2005). For foreign language learning, the results from Canadian research clearly show that children are successful in early immersion programmes when their parents are enthusiastic about immersion and believe in the programme, when they work together with the preschool teachers, when they take an interest in what the child tells them about the programme, and when they take part in preschool activities (e.g. Fortune & Tedick 2003). At home, parents are advised to (verbally) interact with their children in the mother tongue, and to read to their children in the mother tongue on a regular basis because numerous studies have shown that reading activities at home are an important predictor for later academic success in school (e.g. Fan & Chen 2002, Flouri & Buchanan 2004). Since the preschool provides a lot of input in the L2, the role of the parents as role models for the L1, which needs to be fostered at home, is all the more important. Practical experience in bilingual preschools has shown that it is not necessary for parents to drill the L2 at home. Parents may encourage their children to use the L2, but should not make them produce the L2 for friends or family members if the child does not want to (e.g. Schilk et al. i. pr.).

3. How do the children respond to the L2 input?

The children are able to understand what is going on provided the L2 input is comprehensible ("contextualised"), and after a short while, they are able to identify single words or phrases in the respective context. As their L1 acquisition process is not finished yet, they are already used to the fact that they may not understand every single word. In contrast to many adults, this does not worry them. Very often, the children answer in their L1 for quite a while, not only because they could not do so in the L2, but also because they know that their L1 is usually being understood by the L2 teacher. Also, in the case where the children all share the same first language, there is no vital reason at all to take the trouble of resorting to an unknown language (see Wode 2001). In terms of L2 production, the children need some time before they creatively produce language. In the beginning, the children produce L2 words in L1 sentences, i.e. they '*code-switch*' (e.g. "Gib' mir mal die *milk*." ["Pass me the milk."]), or they use well-known formulas and routines ("Veryl hat gesagt, dass jetzt *tidy up time* ist. / Wir gehen jetzt *outside*. / *We go* raus." ["Veryl said that it's tidy up time now. / We go outside now. / We go outside"]). *Code-switching*, however, is something that continues to be a natural element in bilingual speakers' language use (Myers-Scotton 2006). In sum, the preschool children learn an L2 similar to how they learn their L1, namely by observing and listening and while *doing* things in or with the L2. Most children love to sing along, to play with language, to imitate, and they are less afraid than adults to make mistakes in the L2. Just like in the L1 acquisition process, the L2 grammar simply "emerges" (see Steinlen et al. volume I) and therefore does not need to be taught explicitly. In other words, children are not able to consciously organise the learning process, but they learn the L2 implicitly, as a "by-product."

How can children's progress in the L2 be documented in a manner that is feasible in daily life? One possibility is to use an observation sheet which the L2 teacher fills in regularly, as the one which was developed in collaboration with the City of Kiel (Germany) and the bilingual preschool "Beseler Allee" in Kiel (Eufinger et al. 2008). This is meant as a quick and easy way to document children's progress in the L2, both with respect to productive and receptive L2 skills (see Appendix). In this preschool, an observation sheet is filled out twice a year for each child (each time with a different colour). Such documentation has proven to be a helpful tool, for example in conversations with parents.

4. Conclusion

In all, seven different guidelines have been presented, which include L2 input quantity and quality, contextualisation, multisensory learning, speech intonation, interaction strategies, scaffolding, and parental involvement. These guidelines are far from complete but focus on the idea that children learn languages if only they are exposed to "good" input. We have tried to show what this kind of input involves from the part of

the L2 preschool teacher. As always, it is important to critically reflect on the quantity and the quality of the L2 input that the children receive. We hope that this chapter could give some insights with these guidelines which, in many contexts, have proven to be useful tools in successfully promoting children's L2 skills in bilingual preschool contexts. The results of the detailed ELIAS study on teacher input in volume I (Weitz et al.) show for the first time how important good input actually is for the implicit language learning of bilingual preschool children.

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Appendix

Quick and easy observations in a bilingual preschool: Children's Passive and Active Foreign Language Skills[2]

Name:	
Birth date:	Preschool entry:
Child's L1 (and level of knowledge):	
Knowledge of preschool's L1:	
Main contact person:	

Tables 1a+b refer to receptive and productive L2 skills in the bilingual preschool. The last column leaves space for additional comments, examples, situations, simply things which are worth to remember. Abbreviations: n.s. = native speaker (i.e. L2 preschool teacher), L2 = foreign language, L1 = children's first language

1a) Receptive L2 skills in the bilingual preschool

	never	seldom	sometimes	often	example
Child avoids contact to n.s.					
Child knows greetings and politeness formulae					
Child asks n.s. for support (e.g. child like consolation from n.s.)					
Child likes to have books read in the L2.					
Daily tasks (e.g. *brush your teeth, tidy up*)					
Arrangements (e.g. use of rooms, rules)					
Child "communicates" with the n.s. (e.g. tells stories, reacts appropriately in the L1 or L2 or non-verbally)					

1b) Active L2 knowledge in the bilingual preschool

	never	seldom	sometimes	often	example
Child sings L2 songs/rhymes/finger games, etc.					
Child imitates single L2 words/phrases/sentences					
Child communicates with other children in the L2 (single words or L2 "gibber-ish")					
Child acts as a translator					
Spontaneous L2 utterances					

2 This observation sheet (2008) was developed by Esther Eufinger, Cornelia Otto-Neugebauer, Friederike Schulz-Schneider (preschool "Beseler Allee," Kiel, Germany) and Anja Steinlen, in collaboration with the City of Kiel, Germany. The German version may be found at www.fmks.eu.

2) At home (information from parents)

	never	seldom	sometimes	often	example
Child receives offers in the L2 (e.g. DVDs, holidays, L2 books)					
Child tells parents about the L2 in preschool					
Child uses L2 words/phrases/sentences					

Part B: Background and Training

Introduction to Second Language Acquisition

Andreas Rohde

1. Introduction

Up into the 1960s, second language acquisition[1] was not an independent research discipline but, rather, an adjunct to language teaching. It was believed that language structures could be mastered by repeating and practicing them over and over again. Linguistic structures were viewed as habits that had to be changed for the acquisition of a second language. Thus second language acquisition was seen as a process of habit formation which was permanently affected by the well established habits of the first language, resulting in transfer of first language structures to the second language. Over the past 40 or so years, these views have dramatically changed, due to developments in psychology, neurology and sociology but also due to a steadily growing research interest in the field of second language acquisition itself. It has since developed into a large and complex research discipline in its own right. In the following, some of the key issues within the field of second language acquisition are discussed.

2. Nature and nurture

One of the fundamental questions in both first and second language acquisition (in fact in human learning) concerns the question of nature and nurture. In behaviourism, the language learner was viewed as a blank slate; in more recent approaches, however, the questions of to what extent genetic predispositions guide human learning or to what extent it is based on social and cultural experience are focused on (Foster-Cohen 1999, Mitchell & Myles 2004: 12f., Wode 1994).

From birth, we can discriminate speech sounds from each other and we are able to recognise and filter out similar sounding words from the speech stream we are exposed to and categorise perceived elements as single words. We should not forget that small children witness such sound sequences as "itslunchtime" or "openthedoorwillya" and they are not told where the word boundaries are. Recent research shows that actually only 9% of words in child directed speech are in fact words in isolation so that they can be effortlessly recognised (Brent & Siskind 2001). Slips of the tongue, broken down utterances, unfinished sentences have to be understood, throat-clearing, coughs and any kind of noise have to be disregarded. Theoretically, this task cannot be mastered since nobody provides any feedback to the small child as to which utterances are admissible. The child receives no information as to whether his or her own structures

1 The term second language acquisition (L2) is used synonymously with second language learning in this chapter and refers to any language that is acquired after the mother tongue (L1).

are "correct". The difficulty to develop a grammar from the speech we are exposed to and to extract words and morphological endings is often referred to as the logical or "Plato's problem" of language acquisition (Cook & Newson 2007: 55f.). A large group of researchers therefore posits that there is a basic grammar, the Universal Grammar, which is innate. In other words: Every language spoken in the world is based on the same innate principles and parameters whose settings the child fixes upon encountering the respective structures in the input of their first language, be it Swedish, French, Italian or Japanese (Cook & Newson 2007, Haegeman 1994, White 2003).

Tomasello (2003) proposes a radically different view. He maintains that we do not have to assume any innate linguistic structures. His view is thoroughly functionalist − "based explicitly in the expression and comprehension of communicative intentions (intention-reading)" (ibid.: 325). He does not believe that we can explain how human beings create and find linguistic patterns without making reference to communicative function as e.g. UG followers claim. Children initially focus on utterances and not on smaller units such as words or abstract units. Language structure emerges from language use and not vice versa (ibid.: 326f.).

3. Developmental sequences

As mentioned above, second language acquisition (both naturalistic and classroom-based) was viewed as imitation and as a "battle of conflicting habits" until 45-50 years ago. Thus, German learners of English cannot get rid of their German accent when speaking English or certain L1 structures are transferred to the L2, resulting in non-target like utterances (e.g. "Ich habe sie gestern gesehen" is rendered as *[2] "I have seen her yesterday," using the present perfect instead of the obligatory simple past in English). If the L2 structures are sufficiently similar to the ones of the L1, on the other hand, the process of imitation leads to success more quickly – so it was thought. In Contrastive Analysis (CA) any two languages were compared to each other to predict the L2 learner's difficulties (Dulay et al. 1982). This approach, however, falls short of explaining why French learners of English have no problems acquiring a structure such as "I see her" although in French the corresponding structure has the object pronoun between the subject and the verb ("Je la vois"). CA would in fact predict the structure * "I her see" for the French learners (Mitchell & Myles 2004: 38). Any contrastive analysis of two languages is only capable of insufficiently predicting errors. In other words, transfer does not figure where it is structurally expected. A further problem of CA is the fact that in L2 acquisition (as well as in L1 acquisition) structures are found which are neither based on the L1 or the L2: A non-target-like construction such as * "Me no close the window" is quite common for German learners of English despite the fact that the negative marker *no* precedes the verb rather than succeeding it as

2 Utterances marked with an * are non-target-like and are thus considered errors in the language to be learnt.

in German (Wode 1993: 233f.). This latter error points to a phenomenon that had an enormous impact on L2 acquisition studies: Apparently, a large part of the language system is actively constructed in L2 acquisition (and in L1 acquisition for that matter), leading to a series of "mental grammars that are drawn upon in producing and comprehending sentences in the L2" (Ellis 1994: 114). These mental grammars, referred to as *interlanguages* (Selinker 1972), are composed of developmental patterns/sequences which are characterised by predictable universal errors ("Me no close the window"), cross-linguistic influence (or transfer, as in * "I go not to the school" uttered by a German learner of English, see Wode 1993: ibid.) and unpredictable individual variation (e.g. the use of the progressive with stative verbs resulting in constructions such as "I'm loving you," "I'm wanting it," "I'm being here," see Rohde 1996).

In *Processability Theory* (Pienemann 1998), the vast collection of different L2 data drawn from speakers of various L1's, suggests a sequence of stages which are accounted for by how these structures are processed in the learners' minds. According to this view, the stages are not necessarily the result of the linguistic structures' complexity but they are subject to the difficulty dealing with them in the mind. Table 1 summarises the suggested six stages and its characteristic structures.

Stage	Phenomenon	Examples
6	Indirect question (SVO)	I wonder what he wants.
5	Negation / auxiliary 2nd position Auxiliary 2nd position 3rd person singular -s	Why didn't you tell me? Where is she? Peter likes bananas.
4	Copula-preposition Wh-copula-preposition	Is she at home? Where is she?
3	Do-SV(O) Auxiliary SV(O) Wh-SV(O) Adverb in 1st position Possessive pronoun Object (Pronoun)	Do he live here? Can I go home? Where she went? Today he stay here. I show you my garden. Mary called him.
2	S negation V (0) SVO SVO-question -ed -ing Plural -s (noun) Possessive -s (noun)	Me no live here. Me live here. You live here? John played. Jane going. I like cats. Pat's cat is fat.
1	Single words Formulas	Hello, Five Dock, Central, no How are you? Where is Mummy?

Tab. 1: Developmental stages for selected structures in English as L2 (Pienemann 2006: 36)

It is quite striking that a seemingly simple form such as the 3rd person singular present -s ("he sing -s") is only used by the studied learners of English in a target-like manner as late as stage 5 (similar to L1 English data). This element may be so difficult to process because it does not carry a distinctive function (Rohde 1997: 100). As all other grammatical persons (I, you, we, you, they) are not inflected for present tense, learners have difficulty providing the *-s* in a context where the third person singular present is required. Even if an L2 learner who has not yet reached stage 5 is able to provide target-like verb forms including the *-s* in exercises where the third person singular *-s* is explicitly practiced, in free production it will generally be absent up to stage 5. In every L2 English classroom this has to be acknowledged. In fact, the late appearance of this particular feature across all learners of English (including L1) should reassure teachers of English as they usually complain about the salient absence of the 3rd person singular *-s*. Developmental sequences cannot be manipulated or skipped, they have to be accepted as an integral part of the language acquisition process.

The finding that L2 acquisition proceeds through fixed stages must have consequences for the way learner errors are judged and evaluated. We have to understand that we simply cannot present a complex structure such as negation to the learner and expect her to internalise the structure as a chunk so that it will be correctly reproduced in future. Even if a complex negated structure including do-support is target-like after one or two exposures, the learner has obviously only reproduced the structure through rote-learning without having mastered it, or in more technical terminology, without having decomposed it appropriately. Without proper decomposition or "internalisation" of the structure, the learner will not be able to apply it in a target-like fashion in newly created utterances.

In view of the aforementioned errors, it makes sense to distinguish errors and mistakes. Errors are non-target-like structures which can be accounted for by the respective developmental stage the learner is currently going through. Errors cannot be avoided since they reflect or mirror the system as it has developed at a given point in time. They are therefore systematic as they correspond to the current L2 grammar or interlanguage of the learner. This interlanguage is not 'correct' compared to the target language, however, it is consistent with the grammatical predictions of the stipulated developmental stages. Thus, an utterance such as "Me no close the window" is not in line with Standard British or American English but it is in line with a systematic interlanguage grammar and thus points to a proper structural development (Ellis 1994: 73-119, Lightbown & Spada 2006, Mitchell & Myles 2004, Pienemann 2006).

Mistakes, on the other hand, are incorrect forms or structures which do not document the current stage of development but which happen on the planning level of speech production. In other words, the learner knows better but cannot provide a particular target-like form due to lack of attention, lack of concentration or too much processing load (e.g. in the case of extremely complex sentences). This would be the case if a learner has been able to consistently use do-support in negation but produces an utter-

ance like "I no close the window" in a given situation. Or, if we stick to the example of the 3rd person singular *-s*: Its absence would be classified as a mistake if this element has been provided earlier by the learner but in a particular situation she produces something like "she like it" rather than "she likes it" (Ellis 1994: 50-72).

4. The age factor: When should an L2 ideally be learnt?

When the acquisition of one or more languages starts until the age of three, the process is generally referred to as monolingual, bilingual L1 acquisition (McLaughlin 1978). All the languages involved are referred to as L1 as, in the case of the simultaneous acquisition of more than one language, all languages share the same status for the learner and the processes in the learner's mind are assumed to be roughly the same as for a monolingual learner. The criterion of age three in the research is an arbitrary mark and does not necessarily correspond to biological landmarks.[3] However, it is assumed that at the age of three a number of linguistic structures have already been acquired (especially vocabulary) so that a further language that is learnt subsequently does not share the same status. Note that this does not mean that a second language cannot develop in a native-like fashion after age three. The fact that cognitive or linguistic processes possibly differ in the learner before and after age 3 does not necessarily imply that the ultimate L2 competence is distinguishable from an L1 speaker's competence (Long 2007, Singleton & Ryan 2004).

In the late 1960s it was argued that there is a critical period for language acquisition which roughly ends at puberty and after which an L1 competence can no longer be reached (Lenneberg 1967). Lenneberg's formulation of the *Critical Period Hypothesis* (CPH) also led to discussions of a critical period in L2 acquisition (review in Singleton & Ryan 2004). Today researchers generally agree that there is no critical period which ends with a sudden cut-off point after which L2 acquisition is not possible any more or after which no native-like L2 competence cannot be attained. Rather, studies suggest two phenomena: 1. Time windows within which certain structures are learnt do not close abruptly, but gradually, so that it is safer to assume sensitive rather than critical periods in which linguistic structures are favourably learnt (ibid.), 2. For the different levels of language such as the phonological system, the lexicon, the syntax etc. there are different sensitive periods. Accordingly, after the age of around 6, most learners are unlikely to develop a native-like accent in their L2. For adults, it is generally im-

3 The criterion for when language acquisition is referred to as second rather than bilingual first language acquisition is set differently by different authors. McLaughlin (1978) refers to L2 acquisition when the learner is exposed to the new language after age 3. Mitchell & Myles (2004: 23) define it as beginning "at least some years after they have started to acquire their first language." De Houwer (1995: 223), on the other hand, sees a stringent cut-off of exposure to two languages within the first month of birth.

possible (however, there are exceptions). The same goes for a native-like lexicon.[4] In contrast, the acquisition of a native-like grammar is reported to be still possible at the age of about 10 and possibly after (Johnson & Newport 1989).

In order to come to grips with the conflicting results from the wealth of studies on the age factor in L2 acquisition, Singleton & Ryan (2004: 61-117) have formulated different positions to summarise the tendencies in the research:

1. The "younger = better" position

Most of the studies representing this position are concerned with L2 pronunciation. For other linguistic areas the available evidence does not consistently support the position.

2. The "older = better" position

There is no consistent evidence for this position either. However, there are studies suggesting that older learners are more efficient in terms of vocabulary learning and grasping grammar rules. Older learners are more experienced with language and have developed specific learning strategies so that they may outperform younger learners in a number of linguistic tasks.

3. The "younger = better in the long run" position

This hypothesis is the least controversial one. "One can say that there is some good supportive evidence and that there is no strong counter-evidence" (ibid.: 115). Perhaps not surprisingly, those learners who begin to learn an L2 in childhood achieve higher levels of proficiency than those who start at a later point, given that they continue to learn and use the L2 into adulthood (ibid.)

In conclusion, the evidence suggests that "young children make slower progress in the early stages of learning but given sufficient time and exposure, they can (and often do) eventually achieve very high levels of proficiency, even native-like levels" (Long 2007: 46). Figure 1 shows that in any discussion of the age factor, it is important to distinguish between *the rate of acquisition* (older children and young adults tend to learn linguistic material more quickly than young children) and *the ultimate attainment* (in the long run younger learners outperform older ones and reach higher levels of proficiency) (Long 2007: 46f.).

4 Note that the general ability to acquire new words remains intact until the end of a human's life. However, both the quantity and quality of an L1 lexicon have proven to be impossible to catch up with after age 6 (Long 2007: 50ff.).

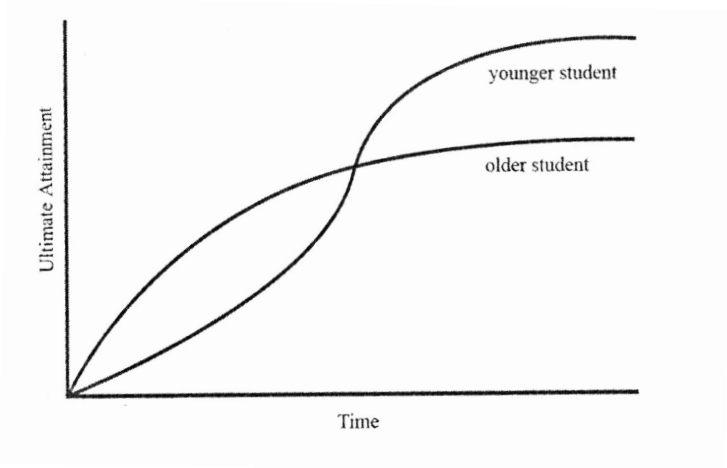

Fig. 1: Line graph showing rate / ultimate attainment differences (Long 2007: 47)

4. Explaining second language acquisition

4.1 L2 acquisition theories

In the brief discussion of nature and nurture (section 2), it has already been stated that in terms of L2 theory building there is a major distinction between Universal Grammar, a property theory, which represents (genetic) dispositions and bodies of knowledge (Crookes 1992: 433), and transition theories, which show how changes in the state of a system evolve but without explicitly stating whether there is innate knowledge involved (Ellis 1994: 682).[5] In the following brief overview, a number of L2 theories are introduced.[6] In view of the fact that the ELIAS study is concerned with L2 acquisition in preschools, one particular theory has been selected for a more thorough discussion as it is particularly relevant for bilingual preschool setups.

Universal Grammar (UG) approach

As stated above, this theoretical approach holds that the structures occurring in L2 acquisition can be accounted for in terms of UG principles and parameters, which are genetically grounded in homo sapiens. However, there is still controversy over the issue of the extent to which L2 learners have access to UG principles and what the initial state of second language acquisition looks like. Four theoretical possibilities in which the interplay of UG and the L1 is discussed have been put forward:

5 There is a third view, emergentism (MacWhinney 2002), according to which properties of the system and the transition of interlanguage states are not separated but inherently linked.

6 The classification of perspectives is taken from Mitchell & Myles 2004.

1. No UG access (the L1 is involved)
2. Full access (the L1 is not involved)
3. Full transfer / full access (the L1 is involved)
4. Partial access (the L1 is involved to varying degrees) (Cook & Newson 2007: 221-241, White 2003).

Cognitive perspectives[7]

Cognitive approaches to L2 acquisition are based on the assumption that, in contrast to UG, there are general cognitive principles which are not only responsible for learning language(s) but for every other type of learning. An example of a cognitive principle is the *One-to-One Principle* according to which learners prefer one single form for a particular function. This principle accounts for the fact that the progressive form is difficult for L2 learners of English to learn because it is not only used for actions that are in progress, i.e. that are incomplete, it is also used to refer to the future ("I'm leaving tomorrow") (Andersen 1984).

Functional/Pragmatic perspectives

According to these perspectives, the starting point of study is not the interlanguage data but, rather, the function that the learner seeks to express with a particular linguistic form. One example for such an approach is the research on the *Aspect Hypothesis* according to which verb inflections initially do not express tense but highlight the inherent lexical aspect of the verb. Thus, for L2 English, verbs such as *sleep*, *read* or *cry* ('activities' that have some duration and do not include an inherent endpoint) first appear almost exclusively in the progressive. Correspondingly, verbs such as *break*, *fall* or *leave* ('achievements' that are punctual and include an inherent endpoint) first predominantly appear with the simple past tense *-ed* inflection (Andersen & Shirai 1994, Kersten 2009, Rohde 1996).

Socio-cultural and sociolinguistic perspectives

From a socio-cultural perspective learners construct meaning in collaborative activity with other members of a given culture. "From this collaborative activity, language itself develops as a 'tool' for making meaning" (Dunn & Lantolf 1998: 420). Sociolinguistic perspectives, on the other hand, explain second language development in terms of the social context the learner finds herself in. In the case study of Alberto, an adult L1 Spanish learner of English, Schumann (1978) accounts for Alberto's variability and his almost fossilised language in terms of a low degree of acculturation. Schumann states that the more alienated a learner is from the community of the target language, the less successful L2 acquisition will be (Mitchell & Myles 2004: 49, 224).

7 Processability Theory (see section 3) is usually regarded to take a cognitive perspective. It is not mentioned here again as it has been discussed in connection with developmental stages.

4.2 Input – Interaction – Output

The approach discussed here differs from the theoretical perspectives discussed above as here the optimal process of turning input into intake is focused on, the actual linguistic data being secondary. It takes its inspiration from Krashen's *Input Hypothesis* (Krashen 1982, 1985) which claimed that rich and comprehensible input is the only necessary condition for successful second language acquisition. Wode's (1981) study of his four L1 German children acquiring English in California during a six-month stay can be seen as evidence in favour of this view. The study suggests in fact that varied L2 input from adults and peers triggered off the children's L2 acquisition and led to a considerable L2 competence at the end of the stay.

It was less clear, however, how the *Input Hypothesis* could be borne out in classroom scenarios or with adult learners who may receive rich and comprehensible input in their workplace and yet fail to acquire the L2 because they are not given sufficient opportunities to interact with L1 speakers and thus only rarely produce L2 utterances. Long (1981, 1996) thus extended the *Input Hypothesis* by formulating the *Interaction Hypothesis*, which suggests that L2 learners profit from negotiations around meaning when engaged with L1 interlocutors. His claim was that the more the input was queried, recycled and paraphrased, the more it becomes well-targeted to the particular needs of the L2 learners (Mitchell & Myles 2004: 160). As a consequence the conversational management between a native and a non-native speaker of e.g. English was believed to be profitable for the L2 speaker through repetitions, confirmation checks, comprehension checks, clarification requests and recasts. All these features represent negative evidence for the learner, i.e. point out to her which of her constructions are in fact admissible in the L2, fostering grammatical development in the learner by highlighting structures for the learner that she in turn may selectively attend to in order to analyze morpho-syntactic structures or vocabulary (Long 1996, 2007: 75-116).

A second extension of the *Input Hypothesis* was proposed by Swain (1985). She had observed that English speaking learners in French immersion programmes in Canada had developed native-like skills in comprehension but lagged behind in their production, clearly suggesting that rich and comprehensible input is in fact not sufficient for L2 acquisition to take place. This led Swain to state the *Output Hypothesis*, claiming that a necessary condition for L2 acquisition is the production of comprehensible output. In a later paper (Swain 1995) she added three functions to specify the hypothesis:

1. *The noticing/triggering function*

Swain (1995) claims that the production of output makes the learner notice gaps in her interlanguage and therefore plays a consciousness-raising role.

2. *The hypothesis testing function*

Only through production is the learner able to test her hypotheses as to target-like L2 forms and structures which are or are not understood by interlocutors.

3. *The metalinguistic function*

Output rather than input or interaction is likely to foster the learner's reflection on linguistic phenomena of the L2 (Mitchell & Myles 2004: 174).

As mentioned above, the three hypotheses rather present a framework of how L2 learners should optimally interact with their input providers than an explanation of how second language acquisition proceeds. This framework has not only been recognised to be very useful for the L2 classroom, especially for German primary school (Kniffka et al. 2008) but has also played a decisive role in the construction of the *Input Quality Observation Scheme* (IQOS) for the ELIAS project (Weitz et al., volume I).

5. Conclusion

This chapter has summarised some of the key issues and theories of L2 acquisition. As stated above, the study of L2 acquisition was closely linked to L2 classroom learning and has, since the 1960s, developed into a large research discipline in its own right. It would only be natural then if the field of L2 classroom teaching and learning would have learnt a lesson or two from its former "adjunct". Interestingly, this is not the case. This was most conspicuous when English as a subject was introduced in German primary schools in the mid 2000s. The primary school curriculum for English included grammatical constructions such as "Peter has got a dog" that the curriculum makers thought to be adequate for the young students while omitting the simple past tense and the possessive *-s* for fear that these structures could be too demanding. Ironically, by this time it had been known for years that the "has got"-construction is a relatively late phenomenon only emerging in stage 5 according to Processability Theory (Pienemann 1998) and that the simple past and the possessive *-s* are in fact "feasible" structures for primary school children (stage 2). Perhaps it is an unwritten law that once a research field has gained its "independence" it distances itself from its formerly closely-related research area. However, it would be desirable for L2 acquisition research and L2 teaching to be more interested in each other.

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Introduction to Intercultural Communicative Competence in Bilingual Preschools

Ute Massler

1. Introduction

This chapter outlines the reasons for introducing very young children to diversity, and explains how their learning experience is enriched by the introduction of teaching principles laid out to further intercultural communicative competence. First, an overview of research results on how and when children develop awareness for diversity is given. The chapter will go on to discuss the prerequisites for the development of intercultural competence as well as the educational aims pursued in developing preschool children's skills in this way. It will conclude with sample activities for monolingual and bilingual preschools and make recommendations for working with migrant parents.

Unless stated otherwise, this chapter and the recommendations for fostering intercultural learning in pre-primary education are based on Wagner (2001), Derman-Sparks (1989, 1993), Ulich & Oberhuemer (2003) and Ulich et al. (2007).

The ELIAS project is based on the idea that linguistic and cultural diversity is an asset rather than a deficit for young children. On the one hand, since children from families with a variety of migrant or mixed cultural backgrounds attend preschools, linguistic and cultural diversity have become integral parts of the preschool experience. On the other hand, intercultural communicative competence (Byram 1997) – the ability to interact effectively in a foreign language with people from cultures that are perceived as being different from one's own – is a basic skill children need to have in order to be successful in a globalised environment. Bilingual preschools, where some of the teachers come from a country where the target language is spoken, as it is the case in the ELIAS preschools, offer children enhanced possibilities for encountering linguistic and cultural diversity. For example, the L2 teachers can introduce children's games, or sing songs from their culture, thereby exposing children to authentical cultural practices. As these activities are carried out in the immersion language of the preschool, the children are additionally exposed to another language.

Ideally, early childhood programmes should take on the responsibility to create a welcoming environment for children with different cultural backgrounds. Such an environment respects diversity, supports children's ties to their families and community, and promotes both second language acquisition as well as the preservation of children's home languages and cultural identities (compare NAEYC 1995). In this way, children from the majority culture are also able to benefit from diversity. Some re-

searchers have blamed their respective administrative and political institutions for not giving sufficient support to these ideas. Here is an example from the German context:

> While multilingualism and bilingualism are considered to be highly desirable educational goals by the educated European middle classes, the attitude – at least from a political-administrative perspective – differs when it comes to the education of migrant children. In general, the specific multilingual and intercultural competences of migrant children – and any models suggesting how to develop those – are being ignored. Neither is there much discussion on how children growing up monolingually could benefit from it. (Ulich & Oberhuemer 2003: 155; translation by the author)

2. When and how do children develop awareness of diversity?

Preschool teachers need to be aware of the fact that children do not come to preschool or child care centres unaware of linguistic and cultural diversity, or unaffected by attitudes shown by others about diversity. Therefore, the following part will provide a brief summary of research by Derman-Sparks (1993) on how children develop racial identity and attitudes in their early years.

According to Derman-Sparks (1993), research into the process of identity and attitude development concludes that children learn by observing the differences and similarities among people and by absorbing the spoken and unspoken messages provoked by those differences. Children are continuously exposed to messages from their environment, openly expressed prejudices as well as unconscious messages. Children might observe, for example, that their parents primarily talk to other parents of the same culture at the same preschool but do not engage in conversations with parents of a different culture. Therefore, children might gradually develop the idea that it is natural for the different cultures to remain separate. What is left unsaid or is not shown similarly carries meaning and therefore is important for children and for how they make sense of their world. They do not only pick up messages and meanings from their family surroundings, but are confronted everywhere with stereotypical images: e.g. the selective display of blond or light-brown-haired children in picture books, pictures of boys riding cars or trains on t-shirts, or pictures of girls cuddling little dogs on their pink-coloured lunch boxes.

As soon as children are able to make these distinctions, they also experience that differences are evaluated. In the beginning this refers to differences in physical appearance. This means that children acquire prejudices by being confronted with the dominant attitudes in their society, not primarily from contact with individuals. These attitudes stem from socially constructed differences between people such as gender, origin, skin colour, social class, physical skills or sexual orientation. They promote some people while putting others at a disadvantage. Referring to these differences becomes a powerful and effective justification for granting or denying people access to resources and positions in society (Derman-Sparks 1993).

As early as at the age of 6 months, for instance, infants notice skin colour differences. By the age of 2, children do not only notice them, but also ask questions about differ-

ences and similarities among people. They soon begin forming their own hypotheses to explain the diversity they see and hear about. Between 2.5 to 3.5 years of age, children also become aware of and begin to absorb prevailing negative social stereotypes, feelings and ideas about people, including themselves. All children are exposed to these attitudes in one form or another, usually through a combination of sources (parents, extended family, neighbours, teachers, friends, TV, children's books, movies). In addition, children take over discriminating language expressions (such as "nigger" and "gypsies"). From 7 years onwards, children can relate discriminating language to groups of people or individuals as well as themselves. Some researchers believe that after age 9, racial attitudes tend to remain constant unless the child experiences a life-changing event (Aboud 1988, Derman-Sparks 1993).

My own observations during the last three years in a small number of Southern German preschools not part of the ELIAS project confirm reports by Wagner (2001) and Derman-Sparks (1989, 1993) saying that many preschools still seem to present themselves as monocultural. Evidence for this was found when analysing the material and activities children are exposed to in these preschools: the dominant culture is usually represented in the majority of toys, posters, picture books, games, songs, etc. Furthermore, the teachers only rarely make references to the cultures and languages of ethnic minorities and migrant children. In the light of the research results showing how children develop awareness for diversity, this approach appears very problematic.

Bilingual preschools, on the other hand, potentially offer the possibility for children to become more sensitive to cultural and linguistic diversity. ELIAS observations indicate that learning another language from a native speaker in a preschool exposes children to diversity and in turn gives rise to a positive perception of cultural diversity (see Gerlich et al., volume I): Different cultures are not only represented by peers, but also by adults who function as models to the children. As some of these preschool teachers, i.e. the native speakers of the target language, come from different countries, they are also representatives of a different culture, and might even introduce different cultural practices and customs such as typical children's games or songs to the preschools. Talking and learning about the preschool teachers' languages and countries of origin seems to provide an incentive for the children to discuss different cultural backgrounds and languages. ELIAS observations indicate that experiencing other languages and learning about other countries or cultural backgrounds in the preschool context – no matter if it is the language or culture of an adult or the language and culture of a migrant child – were predominantly regarded as positive by the children, not as an obstacle or disadvantage. Especially the knowledge of several languages was repeatedly seen as desirable by the children. By contrast, instances in which children from different cultural backgrounds were discriminated against because of their origin, language or culture were extremely rare in the observed bilingual preschools (see Gerlich et al., volume I).

3. The effect of negative discrimination on children's development

Children develop racial identity and attitudes in their early years and their development can be damaged by racism, sexism and classism. Derman-Sparks (1993) summarises existing research on how young children are potentially harmed by such an environment: How children are harmed depends on how they are affected by the various "-isms" – i.e. whether they receive messages of superiority or inferiority (Clark 1955, Dennis 1981). Problems arising from experiencing messages of inferiority might manifest themselves in lower self-esteem and reduced possibilities in participating equally in educational and career prospects.

Although the types of psychological damage which majority children experience are less frequently studied, existing research suggests problems here, too: First, racism teaches majority children double moral standards for treating people of racial/ethnic groups differently from their own (Miel 1976). Second, children may be constructing their identity on a false sense of superiority based, for example, exclusively on the fact that they belong to a specific nationality or to the dominating ethnic group within a multi-ethnic society. Third, racism results in majority children developing fears about people different from themselves. They do not gain the life skills they need for effective interaction with the range of human diversity found in society (Derman-Sparks 1993).

4. How can we foster intercultural communicative competence in preschool children?

In accordance with many teachers and researchers (Byram 1997, Roche 2001, Volkmann et al. 2002, etc.), intercultural communicative competence can be seen as a basic competence that children will need in order to succeed in a globalised environment. As was shown above, children become aware of diversity at an early age. Therefore, fostering children's intercultural communicative competence at preschool level is of vital importance. As previous approaches to teaching intercultural competence still influence today's practice, the following will briefly present one of the most important of these earlier approaches. It will also describe how the current understanding of cultural and linguistic diversity shapes the fostering of intercultural communicative competence in preschools today.

In the last decades one of the approaches that dominated early educational programmes was the so-called "tourist approach" (Derman-Sparks 1989). Characteristic of this approach is that it is built on mainstream – in our context European – perspectives, rules of behaviour, images, learning and teaching styles, and thus presents a simplistic, inadequate version of multicultural education. "Tourist approach" activities revolving around "other" cultures are problematic for the following reasons (Derman-Sparks 1993):

Lack of Integration: Activities are added to the curriculum at special times, rather than integrated into all aspects of the daily environment and curriculum.

Patronising: "Other" cultures are treated as "quaint" or "exotic." This form of tourism does not help children understand that rather than being irrevocably separated by cultural differences, all humans share something in common.

Trivialisation: Cultural activities that are disconnected from the daily life of people trivialise the culture. A typical example is a multicultural curriculum that focuses on holidays – days that are different from "normal" days. Children do not learn about how people live their lives, how they work, who does what in the family – all of which is the lived reality of a culture. Other forms of trivialisation include: turning cultural practices that have deep, ritual meaning into arts and crafts or dance activities, or asking parents to cook special foods without any further engagement with and discussion on the parents' cultures.

Misrepresentation: Using too few images of a group oversimplifies the variety within the group. The usage of images and activities based on traditional practices of an ethnic group that might not be in place any longer rather than images of contemporary life confuses children.

As a result, the great risk inherent in the "tourist curriculum" is that children are exposed to simplistic generalisations about other people, which can lead to stereotyping rather than an understanding of differences. Moreover, by celebrating special days, customs or typical dishes from other cultures, the "tourist curriculum" does not focus on how people live their daily lives, and thereby potentially neglects to show children that they have more in common with children from other cultural backgrounds.

The tourist multicultural curriculum is still present in early childhood education today, and very often commercial curriculum materials and curriculum guides reflect this. Therefore, teachers and researchers advocate an approach that represents the different cultures and contributes to the development of adequate intercultural competence in children from all cultures (Derman-Sparks 1989, Militzer et al. 2002, Schlösser 2004, Ulich et al. 2007, Wagner 2001). They argue that if children are to develop personal characteristics that enable them to communicate, interact and live together peacefully and successfully with other cultures, in other words to become interculturally competent, several prerequisites need to be fulfilled (adapted from Derman-Sparks 1989, Militzer et al. 2002, Schlösser 2004, Ulich et al. 2007, Wagner 2001):

1. Society, teachers, and parents need to be prepared to accept multilingualism and multiculturalism as a form of life as is already self-evident for the majority of all children growing up worldwide, and as is increasingly the case in Europe. Therefore, multiculturalism and multilingualism should be seen as a potential for development rather than a danger or an obstacle. While positive aspects of cultural pluralism should be stressed and teaching should focus on similarities between cul-

tures, differences and problems, for example as encountered by minority children, should not be denied either.

2. Migrant children often experience culture-related conflicts and discontinuity in life. Circumstances such as being faced with different norms and values and having to live in different cultural settings are sometimes considered a developmental handicap. Instead, it might be argued that culture-related conflicts can serve as developmental opportunities as they challenge children to learn to cope constructively with different cultural contexts and practices.
3. It is important to encourage children to build up a positive image of themselves and to feel included in the identity of a particular group. To achieve this goal, the atmosphere in an educational setting has to be such that all children can build up self esteem without the need to feel superior to anyone else. This also implies that migrant or minority children must be able to develop biculturally, that is, to maintain their family culture as well as get immersed and learn about the dominant culture. This also implies that migrant children's cultural identity and their mother tongue should be fostered.

Accordingly, the following intercultural teaching aims need to be developed and fostered in preschool education (adapted from Derman-Sparks 1989, 1993, Ulich & Oberhuemer 2003):

1. Children's curiosity and openness towards foreign languages and foreign cultures

A language is a very concrete intercultural experience – children (and adults) can hear something foreign or strange and react either negatively/dismissively or curiously. Being curious and open towards foreign languages is a distinct feature of intercultural competence.

2. Children's self-awareness and flexibility towards foreign cultures

Being culturally open is a key competence for living together successfully in cultures that are mobile as well as culturally and linguistically heterogeneous. That means that tendencies towards distance need to be reduced. Furthermore, diverse natural contacts and forms of communication between different cultural and linguistic groups need to be practiced.

3. Children's self-awareness and flexibility towards language

Children growing up with two or more languages are in a better position to learn the importance of different language registers. They learn that these codes are formed depending on the situation and the culture. Linguistic and cultural self-awareness means to recognise these codes, to be able to use them flexibly and appropriately, as well as to change from one linguistic or cultural register to another if the need arises.

4. Children's competence in relation to foreign cultures

Children have to recognise their own perspective as only one of a variety of other possible perspectives. Differences are no longer denied; awareness is raised for issues and problems that are common to all but that are perceived in different ways. This means, furthermore, that we become aware of boundaries of our understanding and interpretations and that we accept the "normality of the foreign" (see Hunfeld 1997). Thus "not understanding" and "not always knowing" are professional key competences teachers might also discuss or bring up with children.

5. Children's sensitivity towards stereotyping, prejudice and negative discrimination and their willingness to act

Children need to develop the cognitive skill to identify "unfair" and "untrue" images (stereotypes), comments (teasing, name-calling) and behaviours (discrimination) directed at one's own or others' identities. They also need the emotional empathy to know that discriminating expressions or reactions hurt. Thus, teachers need to cultivate each child's ability to stand up for herself or himself and for others in the face of bias. That means, for example, that children recognise when others are victims of discrimination, and are willing and able to defend them, e.g. by telling the offending children that what they are doing is unfair and that they should stop doing it.

5. Basic principles for designing intercultural learning activities in preschools

5.1 The Anti-Bias approach

The following part will shed further light on how a specific, well-known approach, in this case the Anti-Bias approach, integrates the aims presented above. Furthermore, examples of basic teaching principles and concrete activities will be given.

The Anti-Bias approach is an explicitly anti-racist approach which questions negatively discriminating practice in public institutions such as preschools and schools. It has developed in the United States and the United Kingdom over the last 20 years and has also gained considerable attention in Germany in recent years.

Anti-Bias representatives such as Derman-Sparks (1989, 1993) or Wagner (2001) provide concrete principles of how to design activities that foster intercultural learning and also give numerous practical examples that are in concordance with the framework of the Anti-Bias approach. This part of the chapter will limit itself to the principles that are most relevant for preschools. A few selected activities will illustrate their use and show how they potentially foster diversity.

Linking activities relating to cultural aspects with specific children and their families

As small children of 3 or 5 years construct their cultural identity – their individuality and group identity – with relation to their family, they develop an understanding that there are other forms of living based on their perception of their own family culture. Therefore, it is highly important to link cultural activities to concrete children in the group and their families.

Differentiating between cultural practices of an ethnic group and how a specific family lives

When linking cultural activities to specific children and their families it is important never to take one child as a representative of an entire ethnic group, nor to force children to speak about specific family practices if they do not wish to do so.

Connecting cultural activities with children's daily life

Culture is nothing abstract for small children; they experience culture on a daily basis and learn about their culture by the way their family practices it (through their language, their family stories, values, routines and through what and how the different family members do). Holidays are only one aspect of a specific culture. Paying too much attention to holidays could reduce the children's experiences to a mere tourist curriculum for other children.

Starting out with the cultural diversity present in the preschool group

When discussing cultural diversity, it is advisable to start by looking at the diversity within the specific preschool group. After that, the children's awareness of cultural diversity may be widened by taking into account the children's lives outside their preschool, for example in their direct neighbourhood.

Bilingual preschools with L2 teachers from different countries might start by focusing on their L2 teachers' cultural and linguistic backgrounds, e.g. by comparing first names, different ways of saying "hello" or "goodbye" (kissing, hugging, shaking heads, etc.), by talking about animals typical of their countries of origin, or by showing pictures of their home countries, singing songs or playing games. Thereby, quite naturally, children with diverse backgrounds are given the chance to come up with stories, games, and their own cultural practises.

5.2 Examples for activities in Anti-Bias programmes

What follows is a description of examples for activities within the Anti-Bias approach that aim at fostering intercultural communicative competence. The overarching topic of these example activities shall be "family." The family forms an important part of children's experience of everyday life. Children first learn about culture within and

from their own family, and the way a family lives and works is often influenced by the family's culture of origin.

Therefore, intercultural learning in elementary school starts with the topic "family" and how families can differ from each other. In the following, a small selection of activities (based on Derman-Sparks 1989) is described. Of course, these activities may be extended to other topics which relate to children's daily experiences.

Photo board: People in our family

To start with, the teacher collects pictures of all family members or people a child lives together with. The teacher and the children design a picture board – "The people in our family" – for each child. Underneath each picture is written who this person is. This picture board might be used to explain differences and similarities that derive from the families' different cultural backgrounds. For example, it is quite common with some ethnic groups in Ghana to call one's mother 'mother' – as well as one's aunts. This derives from the cultural practice that Ghanaian families often live together in larger entities than in present-day Germany. Therefore, it is quite common that aunts take over a mother's responsibility for their nephews and nieces either temporarily or on a long-term basis.

A version for older children would be to draw the shape of a big tree and make sure that enough space is left around each name and picture of each child. Children add drawings and photos of themselves and ask teachers to add something in writing if they want. Such an activity would take at least a week. In a bilingual preschool the L2 teachers could start out describing themselves and their families, encouraging other children to follow their example.

Poster: What languages we speak

In culturally diverse groups it makes sense to design a poster on which the different languages of the children and adults in the group are represented by using pictures of objects familiar to all (for example "milk," "ball" or "dog") and writing the word in the different languages underneath. Although most preschool children are not yet capable of writing themselves, they are used to seeing writing and are often interested in it. Some of the older children might already know a few letters or even words in their native language. Seeing and comparing different writings (e.g. Roman alphabet vs. Arab writing) is likely to be an interesting activity for older children. Flags or pictures of children or teachers who speak the respective language can be added to help children allocate the writing to specific people.

Reading or looking at books about different ethnic groups within the group

Later on, picture books or books that contain information about the ethnic background of the children or adults can be read out or shown to the group. Teachers should always use more than one book about each ethnic group and encourage the children to

discuss the question of whether the life represented in the book is similar or different to their own family's life. As a next step, teachers and children may look at books that show families of ethnic groups that are not presented in their group.

Questionnaire about family history

In order to explore the topic of family deeper, the teacher might ask children's parents to fill out a questionnaire about their family's history (where their parents or grandparents come from, etc.). Later on, the teacher investigates the questionnaire together with the children, for example by indicating places of origin on a world map.

Parents or grandparents can also be asked to write down why they came to the new country or tell these stories to the group. Teachers can discuss with the children: "Why did Leila's parents come, why did others? What makes people leave their own country and go to live in another one?" and thereby develop the children's awareness for reasons for migration. In bilingual preschools, the situation of the L2 teachers can serve as an example for a starting point in such a discussion as well.

5.3 Teacher competencies

In order to create an environment in which children from all cultures can be empowered, teachers must be "reflective practitioners" who can think critically about their own teaching practice and adapt curriculum goals and general strategies suited to the needs of the children in their group. By examining their own cultural background, teachers are able to see how young children's culture and language affect responses, interactions, and approaches to learning. For this reason, professional education and development in the areas of culture, language, and diversity should be provided. Competence is further enhanced by professional development in language acquisition, working with diverse families, cross-cultural communication, and others. Furthermore, it is advisable to recruit and support teachers who are trained in languages other than the dominant language/s because individuals with multilingual and multicultural backgrounds can be advocates and support for young children and diverse families (NAEYC 1995, Derman-Sparks 1993).

6. Conclusion

This chapter has given an introduction to teaching intercultural communicative competence in preschools. A variety of teaching principles and ideas have been identified as important and useful, both building on the existing research literature and on our own experiences in ELIAS preschools. There are other important topics preschool teachers need to explore if they want to work specifically and effectively with interculturality, either in a traditional setting or in a bilingual preschool. This would, for example, include how to work with parents from different cultural backgrounds (compare Schlös-

ser 2004, Ulich et al. 2007), or how to foster children's mother tongue as well as their L2 (compare Rohde, this volume; Ulich et al. 2007).

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Bilingual Education for Sustainable Development: Green Immersion in Bilingual Preschools

Shannon Thomas

1. Introduction to Education for Sustainable Development

What is 'education for sustainable development' (ESD)? Where did this idea and theme come from and why is it so important in today's educational system? Over the last 100 years the world's population has grown from roughly 1.6 billion people to almost 6.6 billion people (Population Reference Bureau 2010). As the population increased there was, and is, an increase in the use of the environment's resources, both renewable and non-renewable. Over the years analyses and studies[1] have provided projections for long-term environmental sustainability. Although some studies were labelled as exaggerating the depletion of environmental resources, all helped to identify a need for change in how to properly manage the world's environmental resources when providing for the demand of growing populations. Yet, exaggerated or not, the problems concerning the longevity of environmental sustainability are serious and need to be remedied with insightful solutions. These solutions must take into account the complexity of the environmental relationships, as the analyses and studies have indicated. Ensuring the future of the environment must consider the world's ecological, societal, economical, and cultural relationships (Earth Summit Conference 1992). Education for sustainable development is a multidisciplinary educational approach which accounts for the complexities of the environmental and prepares an individual to positively impact current and future environmental problems (Haan 2009).

In order for ESD to be most effective it should begin in the early stages of childhood, before prejudices have been created, such as "ecophobia".[2] Children are the world's hope for an environmentally sustainable future; therefore, providing scientifically sound ESD can offer children the correct tools to work towards fulfilling that role. As mentioned, ecophobia is a concern and conceivably, it may be the combination of early education and sound ESD which might minimise, or even nullify, the undesirable reaction of ecophobia.

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1 See the studies by Venton (2008), Levang (2007), Kyoto Protocol (1997), Corvalan et al. (2005), Turner (2008), and Meadows et al. (1972) regarding environmental sustainability and how environmental education impacts that sustainability.

2 Wilson (1995) discusses the importance of educating individuals early in their childhood. David Sobel (as cited in Haskin 1999) defined 'ecophobia' as a "callused or fearful attitude towards nature" resulting from improper environmental education.

2. Introduction to Green Immersion

Green Immersion (GI) is a bilingual environmental education programme; which has been developed in the *Zoo-Kindergarten* in Magdeburg, Germany, as part of the ELIAS project. It assists children in their understanding of environmental topics, by presenting the children with a weekly, two-part activity, taught all in the children's foreign language (L2), without translation. The environmental education themes GI presents to the children are based on current environmental issues. These broader environmental issues are broken down into child-friendly activities and supported with appropriate educational materials. The weekly activities are two-part sessions; a preparatory session and a practical application session. The first part of the weekly session provides the children with a time to learn the L2 and environmental themes in a familiar, comfortable setting. During this session the preschool teacher clarifies the unknown or confusing language and topics of that week's activities. For very young children or for very new GI learners, the first part of the session is highly contextualised. This contextualisation gives the children a point of reference to better facilitate understanding (for more information see Kersten et al., this volume). For older children or more advanced GI learners, high contextualisation is not emphasised, unless the topic and language is complex, instead the teacher uses the L2 to assist in the understanding of the new topics and words; this method is done by re-phrasing or discussion of the new topics and language. The second part of the weekly session is the practical application of what was covered in the first session. In this part of the session the children explore, hands-on, the environmental themes of that week.

Since the first sessions are a time for the children to become familiar with the environmental theme and foreign language, the second session is meant for the children to experience the environmental activity through the education method of 'physically' interacting with that week's environmental theme. Through this 'physical' participation the aim/hope of GI is to have the children experience the environment on a deeper level; thereby, hopefully rendering a positive appreciation for that environmental topic. As an example: in the first session the children are invited to participate in an environmental topic regarding seeds. Within that session the children are exposed to the foreign language and the concept of what a seed is (through the use of pictures, drawings, videos, a sample of a seed, etc.). In the corresponding second session the children are then invited to participate in an activity where they go out into the zoo, park or preschool garden to plant various seeds. Then throughout the following months the children are encouraged to care for their newly planted seeds.

During the initial stages of the original GI programme in the zoo preschool it was quickly noted that the practical application part of the GI sessions had the potential to be hectic[3] and, therefore, harder to have the children learn while using the L2 as the

3 The hectic atmosphere of the second session comes from conducting the sessions in public areas, especially in a fully-running zoo. The teachers have to work around the distractions of other zoo

main educational language. This learning situation was the reasoning for the preparatory session in the preschool. By introducing the topic and L2 before the practical application, a deeper appreciation of the practical experience could be obtained. To elucidate, when a new environmental topic is presented to the children the GI programme has to account for the L2 and unknown environmental themes; therefore, in a hectic, high-stimulus learning environment the 'unknowns' of GI become problematic in trying to communicate the intended education theme. To remedy this situation the children are prepared beforehand so that during times of disorder the language and intended teaching topic are known, which removes some of the problems and allows for a deeper understanding of the environmental theme.

3. Green Immersion in the Preschool

Beginning a GI programme at an early age can help to offset unfavourable attitudes towards the environment (e.g. the aforementioned ecophobia). Often environmental prejudices are a result of improper education, a lack of knowledge. Children see wonder in the mundane things, they also can love deeply and are more pliable to education's moulding. When sound GI takes place a child is exposed to environmental topics and can experience the environment in a way which engages the wonder and bypasses the creation of environmental prejudices.

Also, early GI education can provide children with an advantage as they begin their formal schooling. In a quote from Akey (2006), she states "... the influence of educational context on engagement is partially mediated by psychological beliefs about competence and control." The paper continues on to illustrate that students engage more in their learning, thereby having the ability for greater achievement, when the student feels adequate to the task, and self-motivated (see Akey 2006: 13). ESD can be a daunting subject for any student; meeting the needs of a very complex, interconnected discipline can leave students at any age unmotivated and frightened into inaction. Therefore early ESD, such as the GI programme, provides children with the ability to enter into their formal education with knowledge and confidence, ensuring the children of tomorrow will be prepared and eager for creating an environment of sustainability.

In response to this need for creating a learning situation conducive to preparing children/students for their role in environmental sustainability, a UN intergovernmental meeting was held in 1992, the Earth Summit conference in Brazil. At this conference standards were set in place for the valuing of ESD. Five years later governments met again, this time in Japan, which resulted in the Kyoto Protocol (1997). With important policies, such as these, being established there was, and still is, an ever increasing demand on the populations to learn how to live within these policies. Therefore, this in-

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visitors, zoo keepers, other animals, weather, etc., as well as a large group of preschool children, all of which creates an atmosphere of high distraction.

creases the need for environmental programmes, such as GI, in the early stages of childhood, providing individuals with as much learning time as possible.

The research study conducted by the ELIAS project on Green Immersion depicts the positive effects of early childhood ESD, and provides insight into possible 'learner trends' during early GI programmes.[4] This study shows that when children are provided with sound ESD, specifically GI, a child can develop a sensitivity and appreciation for the environment. In one specific instance a child was observed to overcome a particularly acute environmental prejudice, a fear of 'crawly' animals. Over the period of 19 months the child was presented with informative and positive learning situations and was invited to develop a new appreciation for those kinds of animals. By the end of the research study the child had a comfortable appreciation for 'crawly' animals; the appreciation changed from fearful, physical reactions to high interest, even once or twice welcoming 'crawly' things to crawl over the arms and hands.

As a result of the L2 (English) being the language to communicate the environmental topics, the children in the zoo preschool learned the L2 words of the environmental topics/words without knowing the mother-tongue (L1) meaning of those topics/words. This understanding was specifically illustrated when the children talked about animal names. The GI programme introduces the proper animal's names, such as 'snowy owl' instead of just 'owl'. Normally, the more general names, 'owl', were known to the children from previously encountering the words in various settings, however, the more specific names, 'snowy', were new for the children (see Rohde, this volume). Hence, the children would combine their familiar L1 words with the learned L2 words, 'snowy Eule'. This is not seen as a hindrance or a negative aspect of the bilingual environmental education (on either the L1 or the L2), instead as a positive reinforcement of the children's subject comprehension. The 'Green Immersion' chapter in volume I (Thomas et al.) details the aspects of GI learning and illustrates these and other trends of learners in the GI programme.

4. GI Programme Models

The GI research project considered various models to help describe a child's learning progression during the GI programme. A model developed by Janßen (1988) described an individual's environmental knowledge growth, but also included the use of language in the various stages.[5] The inclusion of language into a child's environmental growth is of importance when considering the GI programme. Also, Janßen's model depicted a cycling of the entire model; once an individual reached the top level, the process would continue from the beginning as a new environmental topic was introduced, which was also important for the GI programme.

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4 For a more detailed look at the research conducted and results obtained see Thomas et al., volume I, and the second chapter in this volume.

5 Cf. Janßen (1988) "Ebenen der Naturbegegnung": model describes six levels of progression

The research study adapted Janßen's model slightly, translating the model to English, changing the name of one level and adding a second cycle. The final model used by the GI research study had six levels of learning: Emotional Level, Describing Level, Repetition Level, Understanding Level, Environmental Awareness and Action Competence. The extra cycle was added between the Understanding Level and the Repetition Level, intended to describe how the children learn and negotiate the foreign language.[6] With the adaptation of Janßen's model the research project was able to fully appreciate the children's acquisition of environmental knowledge.

The results obtained from the application of this model indicated that the children in the study progressed through the first three levels at a high percentage. In the latter three levels, Understanding to Action Competence, there is an increased requirement for a child to understand the complexities of the environmental. This increase caused the high percentage of children progressing in the first three levels to fall; however, it was very impressive to observe that children were able to progress into the higher levels of GI. Even with using a foreign language to teach the environmental activities, the children were able follow the themes, learn and establish a foundation of environmental appreciation.

5. Practical Application of Green Immersion

In the zoo preschool two groups of children participated, and still continue to do so, in the GI programme. The maximum group size for the younger children, ages three to four, is 18 children and for the older children, ages four to six, is 13 children. As mentioned previously the GI programme is separated into a two-part activity, the first part being a preparatory session and the second a practical application of the previous session. The GI programme in the zoo preschool is a two level programme. The first level for the younger children as an introduction to GI and the second level as a continuation and expansion of GI for the children to graduate to after the first level.

In the weekly activities the first session takes place on Mondays for the second-level children and Tuesdays for the first-level. The sessions are organised group activities, called 'morning circles'. The 'morning circles' where GI is featured still follow the normal morning routine; i.e. an opening song, welcoming everyone, attendance, etc. Once the normal routine is finished the 'morning circle' is then devoted to the GI programme. At the beginning of the GI activities there is a routine song or chant, regarding animals or the environment; this is to provide a formal beginning to the GI activity. Once the song or chant is finished the activity continues with the introduction of new words/themes, if needed, or the review of the previous session's words/themes. The remaining time in the morning circle is either a time for reinforcement of the new words, through games, crafts or songs, or it is a time for the children to explore deeper into that week's topic.

6 For a full description see Thomas et al., volume I.

The educational method for the younger children in the first part of the activity is to highly contextualise the activity and continue at a pace where the children can assimilate the new topic, but not become bored. Throughout this part of the session it is essential for the teacher to be responsive to the group of children. Young children can have short attention spans and especially if they do not understand the language; therefore, the teacher should be observant of the children's attention. An easy way to identify the attention level of the children is to watch their faces, specifically their eyes; engaged children tend to follow the educational leader with their eyes. The educational method for the second-level children is to encourage discussion or have the children be 'teachers' for part of the activity. While older/GI-experienced children tend to have longer attention spans, it is still important for the teacher to be observant of the children and to adjust the activity accordingly.

An educational hint for redirecting distracted children to the activity is to have active participation in the session, individually or as a group, or pause the activity to include more songs, stories or chants – once the children have refocused, continue with the original activity. For the older/GI-experienced children a good educational hint is to have them verbalise and offer their ideas as much as possible, without losing the focus of the activity. Also, as the older children begin to use the L2 more, praise them specifically for their efforts, but also respond enthusiastically when they share ideas in the L1. Older children are also more apt at actively participating throughout the activities, as indicated in the GI research study. Therefore, providing the older children with the opportunity to explain and learn on their own encourages this active participation in their environmental learning.

6. Age-Appropriate Topics

In the previous section, a distinction of teaching methods was made regarding younger and older/GI-experienced children. It is important to realise that younger children, specifically toddlers, learn differently than older, and especially more GI-experienced, children. Hence, it is essential for GI education to use topics suitable for the age of the group. For very young groups of children, complex environmental themes should be broken down to the simple basics, but not so simple that the essence of the environmental theme is lost. As an example, learning about African animals might be better planned when one or two animals are focused on in one session and adding new animals each week, culminating with a final review of African animals. Often toddlers are not only new to learning the language, but they also might not understand the more basic aspects of the environment. Keeping the sessions simple and beginning with the very basics provides ample opportunity for the building of a solid GI knowledge foundation. For older children, except for in extreme cases, there is an understanding of the basic environmental themes. In groups of older/GI-experienced children it would be appropriate to begin educating on the connectivity of environmental themes. To continue with the African example, focus on one animal, but then expand to educate on

how that animals belongs to the larger environmental picture; to which part of the food chain does the animal belong, where does it live, etc. For older/GI-experienced children, there is a foundation established upon which the environmental scaffolding may be built.

A very important aspect of GI education is to educate using the proper language. Upon entry into a GI programme much is new for the child, language and topic. Thereby, introducing the proper environmental language should prove to be no more difficult than introducing more generalised language; i.e. animal baby names vs. proper animal young names (cf. Thomas et al., volume I). Also, it is much harder to rectify improper language habits than teaching the proper language. Finally, if there is a subject such as animal death or reproduction which can be sensitive topics, speaking with the educating team or parents might be helpful in establishing a general education approach. However, whichever approach is chosen, remember to not exclude the basis of the topic or to ignore the topic. Again, it would be easier to teach plainly about such topics than to teach with 'baby talk'. If the decision of the educating team and/or parents is to not discuss the topic during early childhood, consider providing access to a professional who can properly cover such topics.

7. Age-Appropriate Materials

As with using age-appropriate topics to educate with in GI, age-appropriate materials are also needed for a positive progression through GI education. With any age group, toddlers to seniors, there are certain interests and activities which could help to engage an individual more and assist an individual better in their acquisition of ESD, or GI. Through the data collected in the GI research study it was illustrated that even in a small age range of three to six, there were differences in the effectiveness of activities. Activities of a more simplistic, repetitive nature were engaging for the toddlers, as they could perform the activity and eventually master the activity. On the other hand, the older/GI-experienced children lost interest in those same activities and instead enjoyed more challenging and thought-provoking activities.[7] If there are groups of GI learners which cover a larger age-range, preparing activities for the younger children to do while the older ones are working with more complex subjects, or providing opportunities for the older children to be leaders during the more simplistic sections of the activity may provide a more learning-rich environment. The combination of age-appropriate topics and age-appropriate materials is one educational method of GI (see Thomas et al., volume I).

7 For a more in depth look on material effectiveness, please read Thomas et al., volume I.

8. Ideas for Finding GI Educational Materials

Using a combination of materials for the GI programme can prove to be beneficial for the children's acquisition of environmental topics (cf. Thomas et al., volume I). Within the combination of materials photos, drawings, songs, games, videos, experiments, investigations, stories, real objects and guided observations are examples of engaging materials. When using photos or drawings to assist in educating, the photos and drawings should be clear as to their content as well as accurate, especially regarding the species. Drawings in the zoo preschool were used as introductory tools for the language and the environmental theme, whereas photos were used to depict the environmental theme when the real object was inaccessible. Songs and games used in the GI programme were intended to exercise the children's language skills instead of a focus of the activity; they were used more for re-enforcement. Experiments and investigations were used to help answer or guide the children's environmental questions. However, teachers should have a thorough knowledge of the experiment in case of hazardous outcomes. Using real environmental objects can be stimulating and engaging for the children, when presented in a safe and calming way (Strunz & Thomas and Thomas et al., volume I). Stories and videos should be age-appropriate (no frightening images for very young children) and should maintain the standards of ESD. [8]

The availability of materials and the amount of useable materials depends on a teacher's budget and resource availability. The internet can be a valuable tool for preparing and creating educational materials; however, when using the internet there are a few cautions for teachers to note. A very important caution is the issue of copyright. Often material previously created and posted on the internet has some form of copyright attached to it. To become more familiar with copyright laws, search the internet or library for a country's copyright law or speak with a lawyer. A second caution when using materials from the internet is the accuracy of information. Cross checking information with reputable websites or books is easily done and provides a safe-guard against using inaccurate information. For ideas on where to find materials please visit the ELIAS website and browse through any of the relevant links.

9. Conclusion

GI can be an exciting and rewarding programme to lead. Not only does GI help children in L2 acquisition, which is important in today's society, but GI also prepares children for their role in environmental sustainability. The GI programme provides the chance for young children to develop a sense of appreciation and wonder for their environment. This appreciation and wonder may change the future for the environment, ensuring future generations will live in a healthy and thriving world.

8 See Thomas (2010) for ideas on how to collect and maintain real environmental objects.

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Material for Bilingual Preschools[1]

Christine Tiefenthal, Insa Wippermann, Annelie Schober, Lena Gotthardt, Shannon Thomas

1. Introduction

Thinking about, searching for, finding, and developing material comprise important parts of the teachers' work in bilingual preschools. Teachers in bilingual preschools often complain that not enough ready-made bilingual material is available. Teachers then need to rely on native-authentic material (i.e. material from countries like Great Britain, Canada or the USA, when the target L2 in preschool is English), adapt native material, exchange materials amongst each other or use material they develop themselves. This means that L2 preschool teachers have to rely on their own creativity and on their team partners and a lot of preparation time may be needed. To compound the issue, some native material cannot be adapted right away as it was created for monolingual use and thus needs to be changed for a bilingual setting. As literature regarding bilingual preschools has so far mostly neglected this aspect of every-day work, the aim of this article is, therefore, to fill this gap. This chapter presents ideas and guidelines on material development and how to structure it within a thematic unit or project. Every-day experiences from various bilingual institutions – from the preschools of the ELIAS project as well as from primary and secondary schools – provide the basis for this chapter.

2. Defining 'material'

The German educational guidelines for preschools (e.g. Hansestadt Hamburg 2008) state that preschools educate children and foster their multiple competences (personal, social, emotional, linguistic, motoric) in various ways, based on cooperative, individual, holistic, multi-sensory learning. Therefore, suitable educational material may be regarded as the central aspect to fulfil these guidelines.

Regarding the definition of material, a distinction is often drawn between material and media. For example, in Doff & Klippel's (2007: 146) view, the term 'material' comprises written documents, whereas 'media' refers to digital, visual and audio-visual documents (see also Roick 2003). However, in this chapter, this distinction will not be drawn and 'material' includes 'media' as well. 'Material,' in a broader definition, is everything that helps preschool teachers visualise, inform, teach, contextualise, show, re-

1 We would like to thank all preschool teachers for their valuable input and fruitful discussions, especially everybody at the "Kindertagesstätte an der Bucerius Law School" in Hamburg and all participants at the workshop at the ELIAS Conference in June 2010 (in Magdeburg, Germany).

vise, implement and explain. In other words, all activities, media or games can be viewed as material for bilingual preschools. The following list provides an overview of what can be understood as 'material' in a (bilingual) preschool context:

Material	
Real objects	tools, kitchen utensils, instruments, every-day objects, etc. (in general: things which can be brought along)
Media for vocabulary activities	cards, flashcards, 'feely' bags, surprise box, pictures, action dice[2], etc.
Pictures	drawings, engravings, photos, flashcards, etc.
Media	computers, films, CDs, DVDs, audio plays, radio programmes, etc.
Books	picture stories, fairy tales, …
Preschool routines and project/activity phases	
Rituals and routines	circle, carpet meeting, morning circle, tooth brush song, etc.
Games	o original games (games from an L2 context which already exist), o adapted games (games children know in the L1, then transferred to the L2), o new games (games invented for the new thematic context)
Experiments	natural sciences, chemical reactions, observing nature, etc.
Sports / physical education (PE) / movement	gymnastics, movements, activity games, ball games, etc.
Music	singing, playing instruments, rhythm activities (clapping, stomping, etc.), dancing, etc.
Art / crafts	painting, sculpting, drawing, cutting, gluing, etc.
Theatre	scenes, role play, hand/finger puppets, finger dialogs, etc.
Quizzes	games, trivia, riddles, etc.
Parties / holidays	holidays and festivities from L2 background: Christmas traditions, Thanksgiving etc.
Pre-primary school activities	literacy activities, geometry activities, numbers, first lessons in math and language arts, etc.
Kitchen activities	cooking, baking, etc.
Other people and places	
Field trips	visiting places, e.g. veterinarians, animal shelters, etc.
Inviting experts	doctors, firemen, vets, policemen, other teachers, etc.
Interior of preschool	
Room and decoration	posters, boards, wallpaper, pictures, etc.

Tab. 1: Defining preschool material

Apart from traditional material (e.g. books, pictures) and media (e.g. tapes, CDs), activities such as excursions, visits or kitchen activities help to contextualise the L2 in different situations. Using many different activities within one topic helps children to understand the importance of new words and concepts. Also, having a variety of ac-

2 Paul Chapman from Wales worked in the first English-German preschool supervised by Prof. Wode's research team from Kiel University, Germany. He developed the activity dice, i.e. a cardboard dice with pictures that tell children what to do. It may be used for different (vocabulary) games.

tivities can reach different learner types who may need different stimuli to "digest" a topic. Furthermore, group motivation and innovative educating of new vocabulary can be enhanced through the use of materials (as for example in the case of the activity dice). Finally, material may also be used as a tool for increasing a child's grammatical knowledge. In summary, media and material are important in preschools because they provide the basis for learning and activities within the preschool. To exemplify, they are an innovative means to support the preschool's daily routines. Additionally, media and material are excellent for providing the children with multisensory, natural and active learning. Also, contextualisation of unknown lexical items can be brought about by the use of various media and material.

All preschools differ with respect to the materials they use, the topics which they cover, and the context-based learning phases they include in their daily schedules. Some preschools offer project days once a week, others follow topics over a longer period, or some have topic activities at a set time every day. Nevertheless, in bilingual preschools, where the L2 is learnt naturally, language learning is context-based and children will not be confronted with vocabulary lists. Material needs to be designed in a way that it constantly motivates and supports the children's learning progress. Thus, the topics, projects and topic-based periods should provide an assortment of material and a variety of activities.

2.1 Didactic material

Material intended for use in bilingual preschools may be subdivided into didactic and authentic material. 'Didactic material' refers to material which includes teaching implications, tips and tricks and material designed for an institutional educational background. Teaching and learning aims are specified and specific didactic principles are followed. Teaching aims are the aims that the teacher pursues, the learning aims refer to the children's competences that are improved by using certain material.

According to Günther & Günther (2006), ten didactic rules for foreign language learning in bilingual preschools should be taken into account when a foreign language is offered in a preschool. These principles may be generalised for developing material for thematic units or topics:

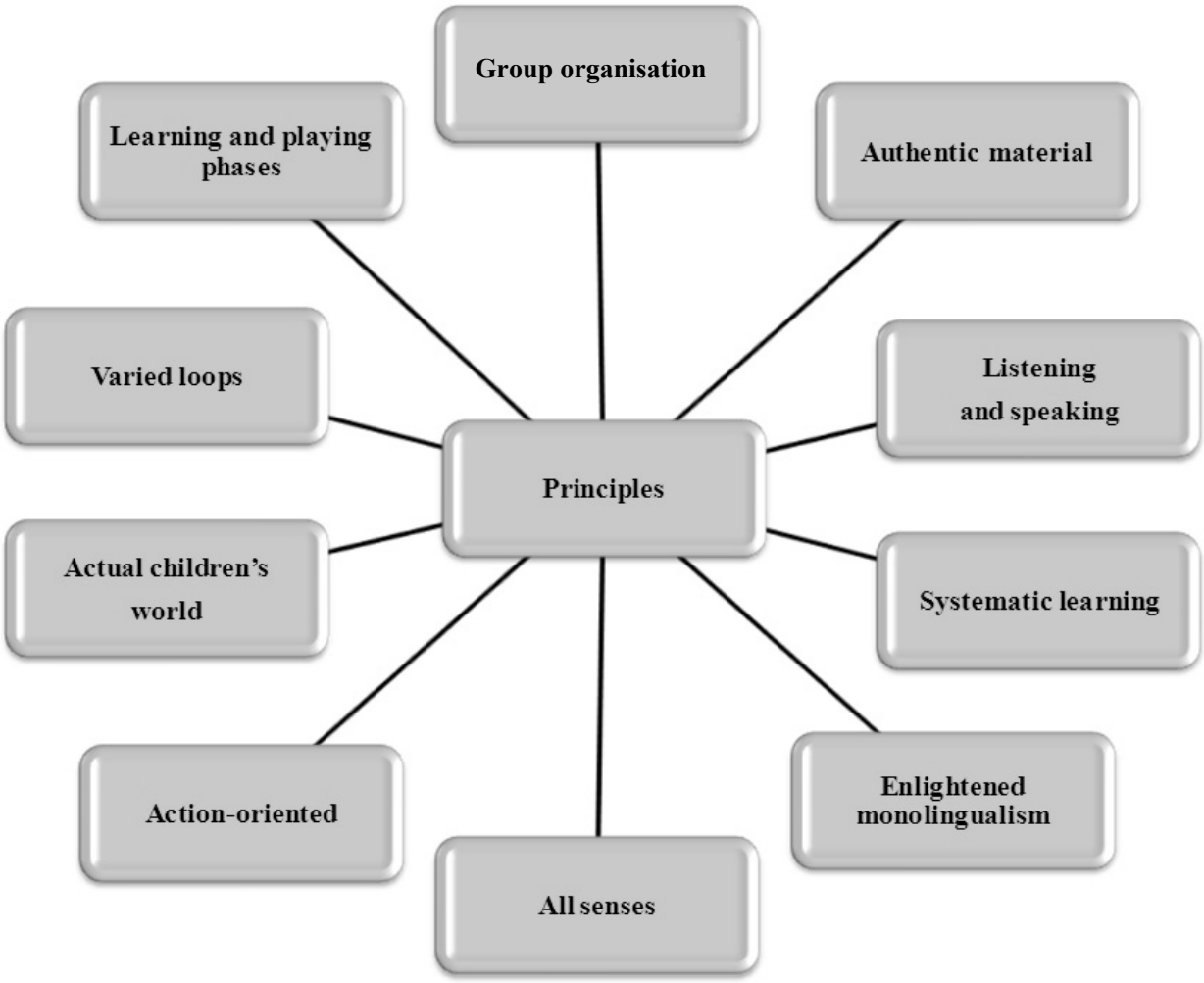

Fig. 1: Günther & Günther's didactic rules (2006: 68)

Günther & Günther's (2006) ten didactic rules refer to a rich learning and language environment which focuses on the children's needs, the teacher's input, different competences and material requirements. Different relevant aspects are taken into account in the mind map (Figure 1) - though not much emphasis is put on material.

To sum up, didactic material follows, realises and implements didactic learning principles.

2.2 Native-authentic material

Native-authentic material (i.e. material from the UK, Canada or Australia which is used in preschools with English as the L2) can be an effective tool in bilingual preschools. Examples include children's books, films, nursery rhymes, games, songs, flyers, etc. However, its use can also be problematic in various ways. As in the case of some English material, there may be striking differences between the (spelling and)

pronunciation of British vs. American English. Furthermore, a non-native[3] speaking teacher may need to familiarise herself with the native-authentic material.[4] In addition, native-authentic material often needs to be adapted to ensure that it can be understood by the children in the group. Authentic material is always designed for a monolingual audience, hence it needs to be changed, simplified or supplemented for the bilingual use in a preschool. Overcoming these problems may involve additional preparation time. Moreover, with adaptation, there is the potential for the material to lose parts of its authenticity, if changed too much (Doff & Klippel 2007: 151). Finally, age suggestions on the material may be misleading, especially when the material is used for L2 and not for L1 children. Of course, proficiency levels are not indicated on native-authentic material, which would be more informative than 'age suggestions.' Thus, didactic material would be the better choice (see above) or individually designed material for the specific use in a bilingual preschool. In summary, didactic and authentic-native material may both be used, but their implementation in the preschool needs to be critically evaluated for the specific setting and target audience.

In order to share the work-load of creating and obtaining appropriate material, it is useful to initiate regular meetings. For example, a regular meeting was established in Kiel, Germany, in 2005, which takes place biannually. Here, teachers from different bilingual preschools, among other things, work on a material collection and share and further develop their experiences, handouts, games, and ideas.

3. Material overview

According to the *ELIAS Preschool Overview Questionnaire* (ELIAS POQ, Wippermann et al., volume I), all bilingual preschools use native-authentic children's books, i.e. children's books from the country where the target language is spoken, in this case English. These books range from picture books to nursery rhyme collections. With respect to Germany, the accessibility of preschools to published didactic material has become easier, resulting from an increase in published material over the last five years (see the list below). However, didactic material has rarely been published in other European countries. The ELIAS preschool in Belgium, for example, works with native-authentic English material (i.e. books and online sources), which has been adapted for the use in that particular preschool. To add to this resource, the teachers in this preschool share their ideas and favoured websites. In contrast, the ELIAS preschool in Sweden is a specialised Montessori-oriented institution with Montessori material in the three promoted languages (English, French, Swedish). Unfortunately, this material is

3 Some immersive preschools have problems finding native L2 speakers and thus employ L1 teachers with a high command of the target L2.

4 When a non-native person is employed as an L2 preschool teacher she may also need additional time to learn songs, rhymes, etc. because the L2 might not come natural and this person may not be an experienced preschool teacher.

not designed for bilingual settings. Finally, as the questionnaire revealed, some German ELIAS preschools possess little authentic English material and the teachers have to prepare their own material, adapt L1 handouts or L1 projects and invent new lyrics in the foreign language for familiar songs in the children's L1. All in all, this takes time and effort.

To reduce the labour of preparing educational material, preschools can always consult bilingual preschool programmes in other countries for additional material. However, there are some cautions to accessing programmes from other countries. As one example of a programme, ready-made material targeting different age-groups and languages, such as German, Italian, Chinese and French is available in Canada. Yet a drawback is, these publications focus on singular topics rather than thematic units (e.g. Fiedler 2009). Therefore, the varied input and learning aims must be adapted for the individual preschool context.

In countries such as Germany, more didactic publications would be welcome (e.g. Sutter 2009, Fiedler 2009) which could also be used in German-English preschools in Austria and Switzerland. Yet again, there are drawbacks to using the currently published didactic collections. Of these collections, most offer ideas, are not well-structured or do not include topics or thematic units. Also, a range of activities for one topic is hardly offered, even though the combination of different activities in one thematic unit is important for revision and connecting new words and concepts with new subject matter. Furthermore, when the material originates from different sources, it is likely to establish other words and routines (e.g. Standard American versus British English) which might confuse the children. Recommendations for future didactic publications would need to have clear learning aims within well-structured, didactically-adapted units. Consequently, if there were more ready-made material, the teacher would not have to collect the material from a great range of sources and would only have to adapt it for the use and needs of the specific situation at the preschool.

4. Implications for developing thematic units

Many preschools offer projects once a week, specific sessions every first or second day, or regular daily sessions where topic-based activities take place. The duration of such projects depend upon the topics and preschool routines. Finding and collecting material is relevant but the material has to follow a purpose and has to fit into a thematic unit. Thus, the structure of a unit becomes important, i.e. in what way does the material need to be organised and to correspond with the phases within a unit. Table 2 summarises ground rules for developing thematic units for a bilingual preschool setting.

Material
• Mix self-made, native authentic and didactic material. • Include intercultural aspects (e.g. Thole et al. 2008, Driver & Noesselt 2008). • The different activities should stimulate and involve different senses (multisensory learning). • Check for different learner types, competences, age groups and personalities in your group for differentiated instruction (Tomlinson 2003).
Input
• Use the known. Adapt L1 songs and games. • The language input needs to be varied: use different material, media, tasks, and organisational patterns; i.e. activities with two children, a smaller group or all children. • Use two versions of children's books, one in L1 and one in L2. If you have children with other family language backgrounds ask them to bring it in their language, too (a nice way for inter-cultural learning) – although the activities should not involve direct translation. • Follow the bilingual approach: two languages - one topic. Combine activities in the L1 and L2.
Structure
• Choose one topic and many activities (holistic learning). • Make learning playful. • Include an introductory activity with pictures, flashcards, puzzles or colouring. • Involve revision phases. • Adapt known songs and games. Re-use the same material in different activities: spread the activities within the thematic unit.

Tab. 2: Implications for developing thematic units

In a preschool setting, a thematic unit may be structured in different phases that children recognise, and which help understanding on the one and planning on the other hand. Fiedler (2009), for example, mentions ten different phases, i.e. greeting, chant with rhythmic clapping, ground song, surprise box and topic song, topic game, moving song and moving game, revision of the topic from the previous day/project, rhyme, story, and farewell. While Fiedler's phases do not allow for much flexibility, Günther & Günther (2006: 75f.) name five phases: preparation, introduction, com-munication, working, and finally evaluation. For partial immersion preschools, adaption and revision phases are of vital importance for motivation and language learning. Thus, phases may be divided as follows, i.e. in an introductory phase, an adaption phase, a working/action phase with new material, a project, a presentation and a feedback phase and several revision phases in between (see Table 3).

Introductory phase
• Introduce the new topic (e.g. show pictures, authentic material, objects). • Introduce vocabulary (e.g. flashcards, surprise box, feely bag).
Adaption phase
• Sing one or two adapted songs. • Play one or two adapted games.
Repetition / Revision phase/s
• Revise vocabulary in different ways (e.g. play memory with flashcards, use an action dice).
New material phase (reading & listening, games, completing word field across daily routines and schedule, …)
• Read a text (e.g. read a story, listen to a poem or nursery rhyme, memorise it). • Play a new game. • Use the new vocabulary and the topic in PE (e.g. activity songs, games, dancing).
Project phase
• One, two or three project/s − depending on the set up. Let the children choose music (e.g. drum/rhythm game/total physical response [TPR] (Asher 1969), art/craft (e.g. make hand-puppets, sculptures,…), theatre (e.g. hand-puppets, role play, and finger dialogue).
Presentation phase
• Presentation (e.g. play for other groups and/or parent, have an exhibition)
Feedback and rounding up phase
• The children give feedback, e.g. thumbs up signs, a talking chain, i.e. when one child speaks after the other without anyone interrupting, a children's conference or feedback posters are possible evaluation and feedback methods.

Tab. 3: Structuring a thematic unit

In the *introductory phase* the new topic and new words are introduced, which are frequently needed as procedures and activities are explained, or as new words are introduced with pictures or flashcards.

Children may play and sing the songs in the *adaption phase* which they already know in their L1 (or the ambient language in preschool) and are then introduced to new texts or lyrics. For example, in the German game 'Armer schwarzer Kater' (*poor black cat*) children sit in a circle and one child pretends to be a cat. The child puts its head on some other child's lap and tries to make the other children laugh. The sitting child strokes and pats the 'cat' and says, "poor, black cat." Once another child laughs or three children have said the phrase, the role of the cat changes. You can easily play the same game in English. As a result, few explanations are needed and the children feel confident because they are familiar with the game.

In the *working/action phase*, different media are used and the topic is introduced before it is transferred to different settings and surroundings. Differentiated instruction (Tomlinson et al. 2003), i.e. instruction that aims at individual learning and different learners' personalities, becomes important in order to motivate the children, relate to different age-groups, learning styles and confidence levels, and serve the children's needs and interests.

Children may practice the new vocabulary in the *repetition / revision phases*. Its aim is to give the children a sense of security, similar to the adaption phase, in that the children have already heard the new words and they are familiar with the context or game. The difference between the adaption and revision phase is that now single activities from the adaption or working phase are repeated; such as singing a song, a finger play, a game like 'poor black cat' (see above) or a rhyme.

In the *presentation phase*, if there is enough time to have one after the project, the children can show what they have learned, what they are proud of and have a chance to speak their L2/L3 in front of a larger group (other groups or their parents), depending on their voluntary readiness to speak and actively use the L2. Children realise that they have learned new words and that working on the project has been important which gives them a sense of pride (and their parents, too).

It is worth pointing out that it is beneficial for the children when thematic units are also presented by the L1 teachers (but not in direct translations or exact copies, of course). For example, the L1 teacher may use different materials and projects and invite the children to present the thematic unit in a different manner. The children's languages (their L1 and L2) and their knowledge of the world may develop and increase when the same content is presented in different languages, and when a topic is explored in many different ways.

5. Conclusion

In summary, the phrase 'material for bilingual preschools' includes a vast range of items, such as activities, games, stories, finger plays, books or films. Preschool teachers make use of all of them and spend some time planning, finding, adapting, changing and structuring the material. This chapter offered some ideas as to how to structure a thematic unit or project in a preschool. However, this chapter cannot provide ready-made materials suitable for every situation, neither can it assist in adapting for L1 material, nor can it offer the results of an empirical study concerning materials. These issues are left for further research. Future studies also need to examine the success of different material used in bilingual preschools with respect to the children's performance in their L2. Furthermore, in order to better understand which type of material is appropriate and what kinds of modifications are necessary for given activities or projects, the application of authentic vs. didactic material should be compared in more detail.

To conclude, it is relatively easy to develop new material and find native-authentic games and songs for a given topic. Yet, developing material is very time-consuming and complex when the methodology of a holistic, multi-sensorial, natural learning approach is followed. Many different activities have to be prepared and thought of and combined with tasks and games in the children's / preschool's L1. Material development for bilingual preschools requires team-work, sharing and exchanging material among colleagues or at round tables with teachers from different bilingual preschools within a city or community. Furthermore, allowing for plenty of preparation and filing time in each individual institution is mandatory. Future studies will have to examine the best way to use different kinds of material and give more detailed information on structuring thematic units in order to ensure that children may use the L2 input as L2 intake in the best possible way.

6. References, literature and ideas for material

In the *ELIAS Preschool Overview Questionnaire* (ELIAS POQ, Wippermann et al., volume I), each preschool was asked to provide information on the L2 material they have at their disposal in their preschool, and which books, materials, CDs, websites, etc. they would recommend. The L2 preschool teachers, however, did not need to justify why they used or recommended specific material. The following list is based on the ELIAS POQ and has been divided into a) general material, b) suggestions for children's books, c) CDs, and d) websites.

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6.2 Children's Book Suggestions

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6.3 CDs

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Incy Wincy Spider. 60 Minutes of Songs and Rhymes Packed Full of Creepy Crawlies and Itchy Things. 1 CD. Favourite. Early Learning Centre.

6.4 Websites for finding material[5]

This collection of websites is meant as an idea to find material and be inspired to create one's own material and handouts. These websites were mentioned by experienced bilingual preschool teachers:

http://abcteach.com
www.andersenpressusa.com/index.html
www.canteach.ca/index.html
www.dltk-holidays.com/
www.dltk-kids.com/
www.dltk-kids.com/
www.eric-carle.com/home.html
www.gruffalo.com/index.html
www.hubbardscupboard.org/index.html
www.kidsatrandomhouse.co.uk/ (good children's book publisher)
www.songsforteaching.com
www.supersimplesongs.com/
www.theideabox.com/
www.usborne.com (good children's book publisher)
www.weesing.com/homepageStill.htm
www3.amherst.edu/~rjyanco94/literature/mothergoose/menu.html
www.bbc.co.uk/learnin/
www.englisch-jetzt.de
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www.eslkidstuff.com
www.kididdles.com/lyrics
www.littleexplorers.com
www.scoutsongs.com/lyrics

5 All website providers are responsible for the content on their pages. ELIAS cannot be held responsible for content from those pages.